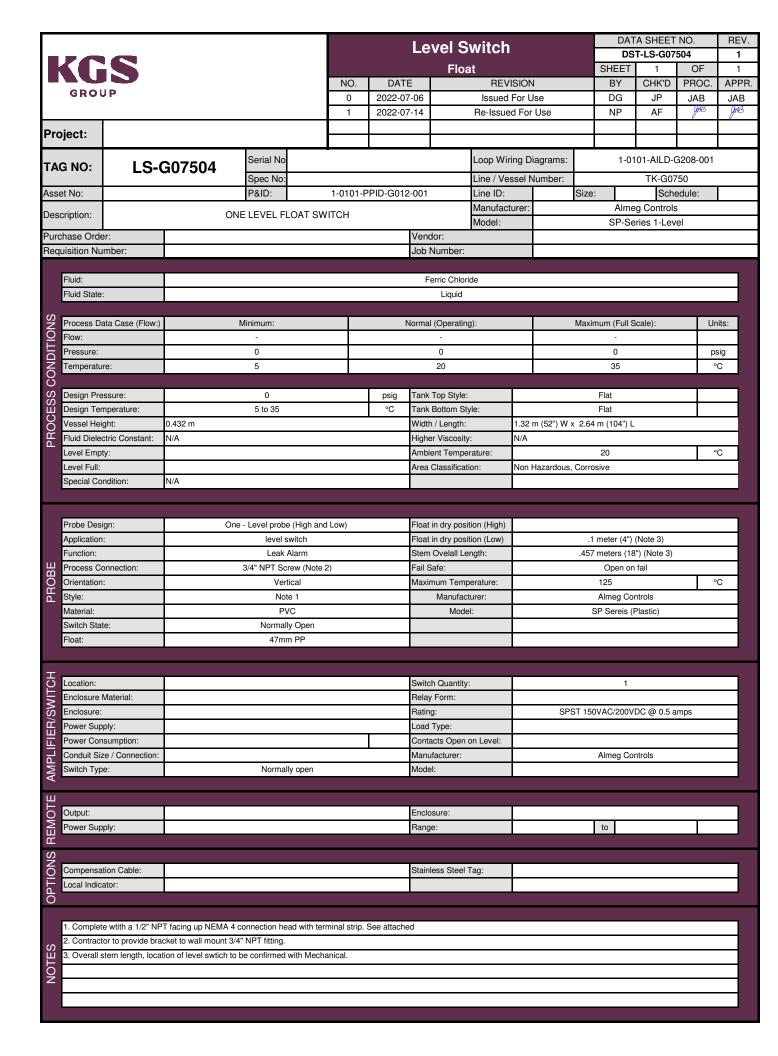
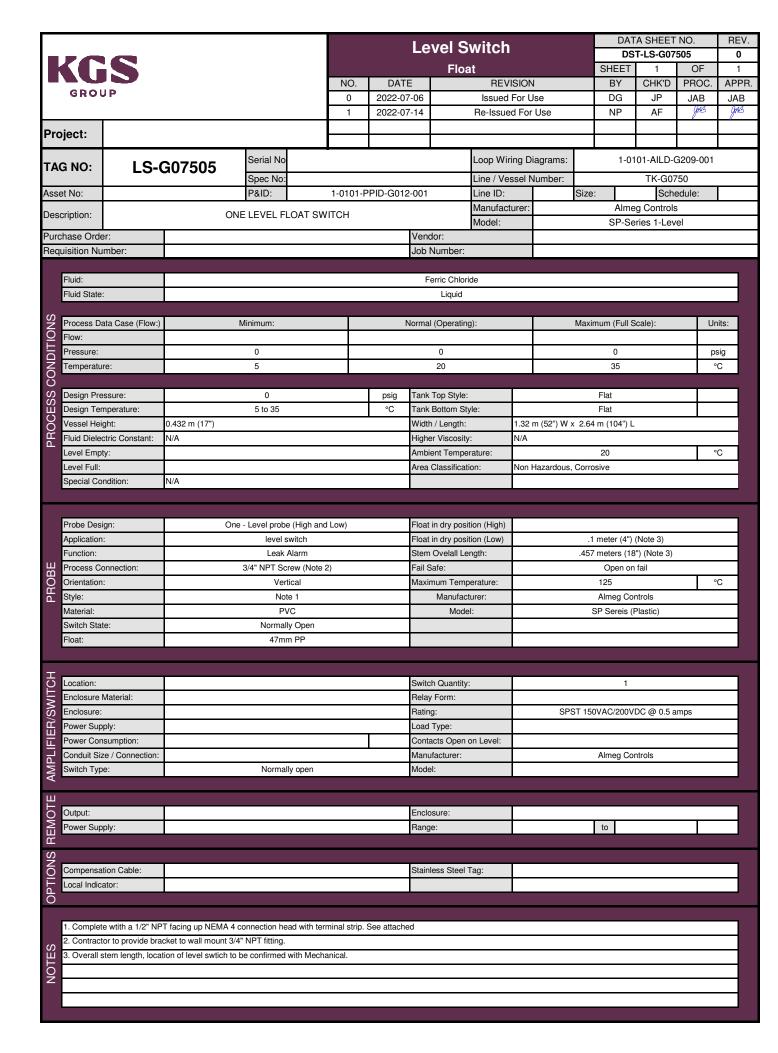
The City of Winnipeg Tender No. 197-2022

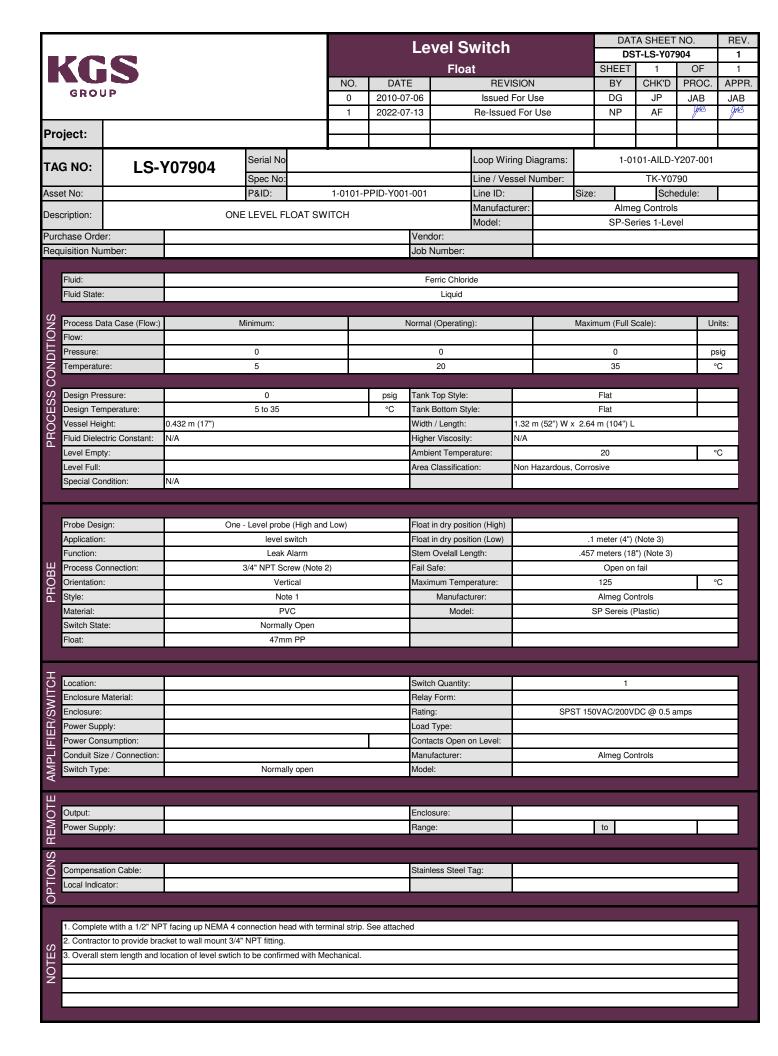
APPENDIX M – DATASHEETS

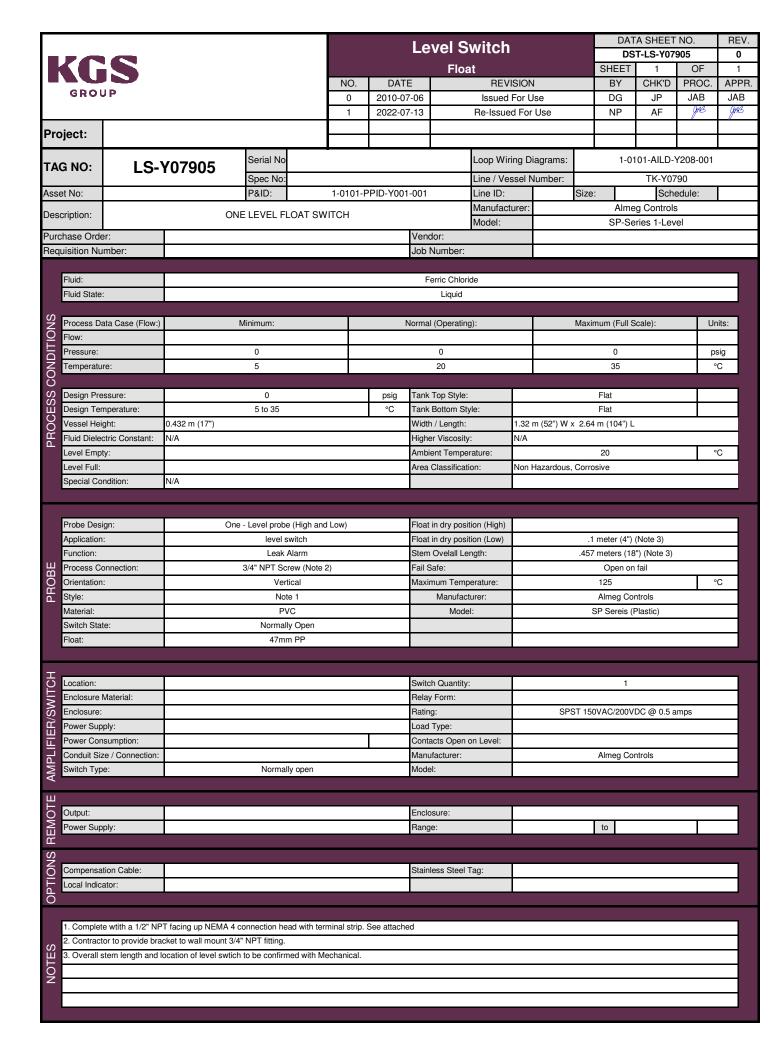




| | | | | | | | Level S | | | DST-LSH | TA SHEET | 3,G07501 | REV. |
|--------------------------|---|---|------------------------|---|----------------|----------------|--|---------------|----------------|------------------|-------------------------|-----------------------------|----------|
| | KG | | | | | ييتبا | Flo | | | SHEET | 1 | OF | 1 |
| | | | | | NO. | DATI | | | ISION | BY | CHK'D | PROC. | APPR. |
| | GROU | UP | | | 0 | 2022-07 | 7-13 | Issued For | r Addendum | NP | AF | yaz | gas |
| | | | | | | | \longrightarrow | | | | <u> </u> | | <u> </u> |
| Pro | ject: | | | | <u> </u> | | | | | | <u> </u> | | |
| |]~~ | 1. 211 20 | | | Щ | | | | | 1-0101-AILD-0 | 2004 001 | ļ | 1 |
| ΤΔ(| G NO: | |)7503, LSL | Serial No | | | | Loop Wir | ring Diagrams: | | 3204-001 / 01-AILD-G | | , |
| I | a NO. | GC | 07501 | Spec No: | | | | Line / Ve | ssel Number: | | TK-G07 | | |
| Asse | et No: | | | P&ID: | 1-0101 | -PPID-G012 | 2-001 | Line ID: | | Size: | | edule: | |
| | | | TW | | | <u> </u> | | Manufact | | | eg Controls | | |
| Desc | cription: | | 1 VV C | O LEVEL FLOAT S | 3WIICH | | | Model: | | | es Multi-Le | | |
| | hase Orde | | | | | | Vendor: | | | | | | |
| Requ | uisition Nu | umber: | | | | | Job Number: | | | | | | |
| | | | | | | | | | | | | | |
| | Fluid: | | | | | | Ferric Chlo | ride | | | | | |
| | Fluid State: | 3 : | | | | | Liquid | | | | | | |
| CO | | | | | | | - " | | | /= u.c | | | |
| $\overline{}$ | | Data Case (Flow:) | IV | Minimum: | | r | Normal (Operatir | ng): | | Maximum (Full S | Scale): | Un | nits: |
| \exists | Flow: | | | | | | | | | | | | |
| ᅙ | Pressure: | | | 0 | | | 0 | | | 0 | | | sig |
| CONDIT | Temperatu | ure: | | 5 | | | 20 | | | 35 | | ٧ | С |
| | | | | | | | - Chule | | | | | | |
| ഗ | Design Pre | | <u> </u> | 0 5 to 35 | | psig | Tank Top Style | | | Flat | | $-\!\!\!\!\!+\!\!\!\!\!\!-$ | |
| 빙 | , | sign Temperature: 5 to 35 ssel Height: 1.5748 m | | | | °C | Tank Bottom S | | | Flat | | | |
| \simeq | | ssel Height: 1.5748 m id Dielectric Constant: N/A | | | | | Width / Diamet | | 0.8636 m | | | | |
| <u>a</u> | | | | | | | Higher Viscosit | | N/A | 20 | | | С |
| | Level Empt | el Empty: 0 meters | | | | | Ambient Tempe Area Classifica | | Non Hazardous, | | | | |
| | Level Full: Special Co | | 1.219 meters N/A | | | | Area Olassinou | ition. | №П Па∠агоось, | Corrosive | | | |
| | Special 2. |)fidition. | N/A | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | Probe Desi | eian: | Two | - Level probe (High a | and Low) | | Float in dry pos | eition (High) | | .1 meter (4") | (Note 3) | | |
| | Application | _ | | High and Low level sv | | | Float in dry pos | | | 1.117 meters (4- | | | |
| | Function: | | 1 | Alarm | MICO. | | Stem Ovelall L | | | 1194 meters (4 | | | |
| ш | Process Co | connection: | | 2" NPT Screw (Note | e 2) | | Fail Safe: | J | | Open on | | | |
| \mathbf{a} | Orientation | | | Vertical | · -, | | Maximum Tem | perature: | | 125 | | 0/ | С |
| PB | Style: | | <u> </u> | | | | | • | | | ntrolo | | |
| | | | · | Note 1 | | _ | Manufad | cturer: | | Almeg Co | 1111015 | | |
| | Material: | | | Note 1 PVC | | | Manufad Mod | | | Almeg Co | | | -[|
| | | ite: | | | | | | | | | | | |
| | Material: | nte: | | PVC | | | | | | | | | |
| | Material: Switch Stat | ate: | | PVC Normally Open | | | | | | | | | |
| T | Material: Switch Stat Float: | ate: | | PVC Normally Open | | | Mod | del: | | SP Sereis (I | | | |
| ICH | Material: Switch Stat Float: Location: | | | PVC Normally Open | | | Mod | del: | | | | | |
| WITCH | Material: Switch Stat Float: Location: Enclosure | Material: | | PVC Normally Open | | | Switch Quantity Relay Form: | del: | | SP Sereis (I | Plastic) | | |
| /SWITCH | Material: Switch Stat Float: Location: Enclosure Enclosure: | • Material: :: | | PVC Normally Open | | | Switch Quantity Relay Form: Rating: | del: | SPS | SP Sereis (I | Plastic) | mps | |
| ER/SWIT | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup | Material: | | PVC Normally Open | | | Switch Quantity Relay Form: Rating: Load Type: | del: | SPS | SP Sereis (I | Plastic) | :mps | |
| IFIER/SWITCH | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con | Material: :: pply: nsumption: | | PVC Normally Open | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| PLIFIER/SWITCH | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz | Material: :: pply: nsumption: ize / Connection: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| PLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con | Material: :: pply: nsumption: ize / Connection: | | PVC Normally Open | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz | Material: :: pply: nsumption: ize / Connection: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| E AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ | Material: :: pply: nsumption: ize / Connection: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: | del: | SPS | SP Sereis (I | Plastic) | imps | |
| E AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: | Material: : pply: nsumption: ize / Connection: pe: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: | del: | SPS | SP Sereis (I | Plastic) | umps | |
| NOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ | Material: : pply: nsumption: ize / Connection: pe: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: | del: | SPS | SP Sereis (I | Plastic) | imps | |
| REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: | Material: : pply: nsumption: ize / Connection: pe: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup | Material: : pply: nsumption: ize / Connection: pe: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| ONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup | Material: : pply: nsumption: ize / Connection: pe: pply: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | amps | |
| ONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup | Material: : pply: nsumption: ize / Connection: pe: pply: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | ımps | |
| IONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup | Material: : pply: nsumption: ize / Connection: pe: pply: | | PVC Normally Open 47mm PP | | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | amps | |
| OPTIONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup Compensa Local Indica | Material: : pply: pply: ize / Connection: pe: pply: ation Cable: cator: | T facing up NEMA 4 co | PVC Normally Open 47mm PP Normally open | |). See attache | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | umps | |
| OPTIONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup Compensa Local Indica | Material: :: pply: nsumption: ize / Connection: pe: pply: ation Cable: cator: | T facing up NEMA 4 co | PVC Normally Open 47mm PP Normally open | |). See attache | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | umps | |
| OPTIONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup Compensa Local Indica 1. Complete 2. Contract | Material: :: pply: nsumption: ize / Connection: pe: pply: ation Cable: cator: ete wtith a 1/2" NP' stor to drill and tap | | PVC Normally Open 47mm PP Normally open Normally open | terminal strip | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | imps | |
| OPTIONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup Compensa Local Indica 1. Complete 2. Contract | Material: :: pply: nsumption: ize / Connection: pe: pply: ation Cable: cator: ete wtith a 1/2" NP' stor to drill and tap | top of tank to mount 2 | PVC Normally Open 47mm PP Normally open Normally open | terminal strip | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | amps | |
| S OPTIONS REMOTE AMPLIFI | Material: Switch Stat Float: Location: Enclosure I Enclosure: Power Sup Power Con Conduit Siz Switch Typ Output: Power Sup Compensa Local Indica 1. Complete 2. Contract | Material: :: pply: nsumption: ize / Connection: pe: pply: ation Cable: cator: ete wtith a 1/2" NP' stor to drill and tap | top of tank to mount 2 | PVC Normally Open 47mm PP Normally open Normally open | terminal strip | | Switch Quantity Relay Form: Rating: Load Type: Contacts Open Manufacturer: Model: Enclosure: Range: | del: | SPS | SP Sereis (I | Plastic) | amps | |

| | 76 | | | | | | Le | vel S | | | | DST-LSH | A SHEET I-Y07903, | Y0707901 | |
|--------------------------------|-----------------------------|---|---------------------------------------|-------------------------|----------------|---------------|-------------|--------------------|------------|---------------|----------|--------------------------|----------------------|----------|-----------|
| | {G | | | | | | | Floa | | | | SHEET | 1 | OF | 1 |
| _ | GROU | | | | NO. | DAT | | | | ISION | | BY | CHK'D | PROC. | APPR |
| | GRO | 96 | | | 0 | 2022-0 | 7-13 | ls | ssued For | Addendum | | NP | AF | gnes | gns |
| | | I | | | | | | | | | | | | | |
| Pro | ject: | | | | | 1 | | | | | | | | | |
| | _ | I CH VO | 7002 CI | | L | | | | | | 1-0 | 101-AILD-\ | /203-001 / | ! | ٠. |
| ТА | G NO: | | 7903, LSL | Serial No | | | | | Loop Wir | ing Diagrams: | 1 | | 01-AILD-Y | | |
| | | Y0 | 7901 | Spec No: | | | | | Line / Ve | ssel Number: | | | TK-Y07 | | |
| Ass | et No: | | | P&ID: | 1-0101- | PPID-Y001 | 1-001 | | Line ID: | | Size |): | Sch | edule: | |
| Doc | cription: | | TW | O LEVEL FLOAT S' | WITCH | | | | Manufact | urer: | | Alme | g Controls | 3 | |
| Des | cription. | | 1 VV | O LLVLLT LOAT 3 | WITCH | | | | Model: | | | SP-Seri | es Multi-Le | evel | |
| | hase Orde | | | | | | Vend | dor: | | | | | | | |
| Req | uisition Nu | ımber: | | | | | Job I | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | F | erric Chloric | de | | | | | | |
| | Fluid State | | | | | | | Liquid | | | | | | | |
| S | | · 0 /FL) | | V | | | | (0 " | <u> </u> | | | (F. II. C | | | |
| S | Flow: | ata Case (Flow:) | | Minimum: | | | inorma | (Operating |): | | IVIAXI | mum (Full S | cale): | U | nits: |
| Ĕ | Pressure: | | | 0 | | | | 0 | | | | 0 | | | ocia |
| CONDITIONS | Temperatu | Ire. | | 5 | | | | 20 | | | | 35 | | | sig °C |
| Ö | remperatu | ile. | | 3 | | | | 20 | | | | 33 | | | C |
| SC | Design Pre | escure. | | 0 | | psig | Tank | Top Style: | | | | Flat | | | |
| Si | | mperature: | 5 to 35 | | °C | _ | Bottom Styl | le: | | | Flat | | - | | |
| $\ddot{\circ}$ | | essel Height: 1.5748 m | | | | | _ | / Diameter | | 0.8636 meters | | | | | |
| PROCESS | | gher SG / Density: N/A | | | | | - | er Viscosity: | | N/A | | | | | |
| а. | | gher SG / Density: N/A vel Empty: 0 meters | | | | | _ | ent Temper | | | | 20 | | | °C |
| | Level Full: | | 1.219 meters | | | | Area | Classification | on: | Non Hazardous | s, Corre | osive | | | |
| | Special Co | ondition: | N/A | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Probe Desi | ign: | Two | - Level probe (High ar | nd Low) | | Float | in dry positi | ion (High) | | · | 1 meter (4") | (Note 3) | | |
| | Application | 1: | | High and Low level sw | ritch | | _ | in dry positi | | | | 7 meters (4 | | | |
| ш | Function: | | | Alarm | | | _ | Ovelall Len | ngth: | | 119 | 94 meters (4 | | | |
| BE | Process Co | | | 2" NPT Screw (Note | 2) | | Fail S | | | | | Open on | fail | | |
| PROBE | Orientation | 1: | | Vertical | | | Iviaxii | num Tempe | | | | 125 | atuala. | | °C |
| Ф | Style: Material: | | | Note 1 PVC | | | | Manufactu Model | | | | Almeg Co SP Sereis (I | | | |
| | Switch Stat | te: | | Normally Open | | | | Model | • | | | or oereis (i | iastic) | | _ |
| | Float: | | | 47mm PP | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| $\dot{\Omega}$ | Location: | | | | | | Switc | h Quantity: | | | | 2 | | | |
| | Enclosure | Material: | | | | | Relay | Form: | | | | | | | |
| AMPLIFIER/SWITCH | Enclosure: | | | | | | Ratin | g: | | SF | PST 15 | 0VAC/200V | DC @ 0.5 a | ımps | |
| H | Power Sup | | | | | | Load | Type: | | | | | | | |
| 區 | Power Con | | | | | | | acts Open o | n Level: | | | | | | |
| Ч | | ze / Connection: | | | | | _ | facturer: | | | | Almeg Co | ntrols | | |
| AM | Switch Typ | oe: | | Normally open | | | Mode | l: | | | | | | | |
| | | | | | | | | | | | | | | | |
| 빝 | 0 | | ı | | | | le . | | | 1 | | | | | _ |
| 9 | Output: | b | | | Enclo | | | | | 4 | | | | | |
| REMOT | Power Sup | opiy: | | | Rang | e. | | | | to | | | _ | | |
| | | | | | | | _ | _ | _ | | _ | | _ | _ | _ |
| $\stackrel{\sim}{\rightarrow}$ | | | ı | | | | Stain | ess Steel T | ag: | | | | | | |
| \leq | Compensa | tion Cable: | Compensation Cable: Local Indicator: | | | | | COO CICCI I | ug. | | | | | | |
| TION | <u> </u> | | | | | | | | | | | | | | |
| NOITAC | <u> </u> | | | | | | | | | | | | | | |
| OPTIONS | <u> </u> | | | | | | | | | | | | | | |
| OPTION | Local Indic | ator: | T facing up NEMA 4 o | connection head with te | erminal strip | . See attache | ed | | | | | | | | |
| | Local Indicators 1. Complet | ator: te wtith a 1/2" NP | T facing up NEMA 4 c | | erminal strip. | . See attache | ed | | | | | | | | |
| | 1. Complet 2. Contract | ator: te wtith a 1/2" NP tor to drill and tap | top of tank to mount | | | | ed | | | | | | | | |
| | 1. Complet 2. Contract | ator: te wtith a 1/2" NP tor to drill and tap | top of tank to mount | 2" NPT size fitting. | | | ed | | | | | | | | |
| NOTES OPTION | 1. Complet 2. Contract | ator: te wtith a 1/2" NP tor to drill and tap | top of tank to mount | 2" NPT size fitting. | | | ed | | | | | | | | |





| | | | | | | An | م را د | -ar la | O4 W 1 1 1 10 | a a m t | | [| DATA SHEET | ΓNO. | REV. |
|--------------------|--------------------------|---|---------------------|--------------------------|----------------|--------------|--------------|----------------------------|---------------|--------------|-----------|------------|---------------|----------|----------|
| | 76 | | | | | An | | zer In | | | | | DST-AIT-F8 | 800 | 0 |
| | KG | | | | | | Cai | rbon Mo | noxide | : | | SHEI | ET 1 | OF | 1 |
| - | GRO | | | | NO. | DAT | Έ | | REV | ISION | | BY | CHK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 4 07 | ı | ssued for | Addendum | | DG | j JP | gas | gas |
| | | | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107 | -015 | | | | | | | | | | | |
| | • | | | | | | | | | | _ | | | | |
| TΑ | G NO: | AIT | -F8800 | Serial No. | | | | | | ring Diagram | _ | | 1-0101-AILD- | F266-001 | |
| ٨٥٥ | et No: | | | Spec No: P&ID: | 1 0101 [| PPID-F005 | 001 | | Line / ve | ssel Numbe | Size | . | Coh | iedule: | |
| A55 | et No. | | | FaiD. | 1-0101-1 | |)-UU I | | Manufac | turer: | SIZE | 3. | MSA | ledule. | |
| Des | cription: | Transmitter for | r Carbon Monoxid | de (Room 101B) | | | | | Model: | turor. | | Ultima | x X5000 (Not | e 1.2) | |
| Puro | chase Orde | er: | | | | | Vend | dor: | | | Tun | | cess Solution | |) |
| | uisition Nu | | | | | | _ | Number: | | | | | | | <u>'</u> |
| | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | | | | | | | | |
| | Fluid State | : | | | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | |
| ON | Process Da | ata Case (Flow:) | | Minimum: | | - 1 | Norma | l (Operating | j): | | Max | imum (F | ull Scale): | Uı | nits: |
| E | Pressure: | | | | | | | | | | | | | | |
| PROCESS CONDITIONS | Temperatu | re: | | | | | | | | | | | | | |
| Ö | D : D | | ı | 450 | | D : | | | | | | 11/4 | | - 1 | |
| ËŠ | Design Pre Design Ter | | | 150 10 to 50 | | Psig °C | Vapo | or Pressure | PV: | | | N/A N/A | | | P. |
| 00 | SG / Densi | | N/A | | - | _ | pressibility | (7): | | | N/A | | , | iP . | |
| PR | | | | | | ing/Abradin | | N/A | | IN/A | | l l | - | | |
| | | ipe Material mbient Temperature: 20°C 6 Solids: N/A | | | | | _ | Classificati | | Non Hazard | ous. Cori | osive | | | |
| | % Solids: | · | | | | | | ial Conditio | | N/A | , | | | | |
| | | . In the second | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | AIT-F8800 | | | | Resp | onse Time: | | 11 sec | | | | | |
| | Application | pplication: Gas Monitoring type: LCD Display | | | | | Tem | p Compens | ation: | | | | | | |
| | Type: | Application: Gas Monitoring Type: LCD Display | | | | | Max | Distance to | Element: | | | | | | |
| ËR | | Application: Gas Monitoring Type: LCD Display | | | | | | ovals: | | CSA, ATEX | IECEx, | CE Mark | | | |
| F | | Material: | | | | | _ | ument Rang | | 0 | | to | 95 | % | RH |
| TRANSMITTER | Mounting: | | Integral | | | | _ | ration Rang | | | | to | | | |
| RA | Signal / Pro | | 4-20 mA 24VDC | | | | | roller Displa | | | | to | | | |
| _ | | oply Voltage: Connection: | 3/4" NPT | | | | Allov | vable Press rating Temp | | -40 | | to | +60 | | ·C |
| | Output @ | | 3/4 141 1 | | | | Make | | Jerature. | MSA | | io | +00 | | 0 |
| | Accuracy: | | | +/- 3% | | | Mode | | | | Ult | ima X5 | 000 (Note 2) | | |
| | | | | | | | | | | | | | , , | | |
| | | | | | | | | | | | | | | | |
| | Sensor Typ | oe: | Carbon Monoxide | | | | O-Ri | ng Material: | | | | | | | |
| | Body Mate | rial | | | | | Elect | rical Appro | val: | | | | | | |
| _ | Electrode N | Material: | | | | | Cell | Constant: | | | | | | | |
| | Insulation I | | | | | | Max | Flow Rate: | | | | | | | |
| ELEMENT | Process Co | | | | | | _ | dard: | , | | | | | | |
| ᆸ | | r Connection: | | | | | _ | p. Compens | | _ | | 1,1 | 4000 | - I - | DM |
| | Mounting A | | | | | | _ | suring Rang | je: | MSA 0 | | to | 1000 | l P | PM |
| | Insertion D | re Sensor: | | | | | Mode | ufacturer: | | XCell Toxic | | | | | = |
| | · oporatu | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Line No: | | | | | | Outle | et Pressure: | | | | | | | |
| Σ | Tap Size: | | | | | | Filter | (s): | | | | | | ı | |
| STE | Loop Flow | / Indicator: | | | | | Tubir | ng: | | | | | | | |
| SY | Loop Flow | Controller: | | | | | Cool | er Required | lt | | | | | | |
| SAMPLE SYSTEM | Loop Flow: | .oop Flow: | | | | | Mate | rial: | | | | | | | |
| AMP | | oop Temperature: | | | | | | d Valve(s) | | | | | | | |
| Ŝ | | oop Pressure: | | | | | _ | Time: | | | | | | | |
| | Low Flow 0 | Jell: | | | Analy | ysis Time: | | | | | | | [| | |
| | | | | | | | | | | | | | | | |
| | 1 Manufa | turor and mad-1 | e wore standard: | d by the City via BED 1 | 10-2014 | alternates - | roube | titutes will b | e accepte | 4 | | | | | |
| | | | ith two output rela | d by the City via RFP 44 | -J-2014, 110 8 | ancinates 0 | . auDS1 | iiiuido WIII D | о ассеріе | J. | | | | | |
| ES | | | 2 00.001 1010 | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| | | | | | | An | alv <i>a</i> | ror In | 044110 | oont. | | [| DATA SI | HEET | NO. | REV. |
|--------------------|----------------|--|---------------------|---------------------------|---------------|------------|--------------|----------------------------|-------------|--------------|------------|------------|-----------|--------|------------|-------|
| | 76 | | | | | An | | zer In | | | | | DST-A | IT-F8 | 301 | 0 |
| | KG | | | | | | Cai | bon Mc | noxide | : | | SHE | ET | 1 | OF | 1 |
| _ | GRO | | | | NO. | DAT | Ε | | REV | ISION | | BY | ′ CH | HK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 4 07 | ı | ssued for | Addendum | | DG | } , | JP | gns | gns |
| | | | | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| | • | | | | | | | | l | | | | | | | |
| TΑ | G NO: | AIT | -F8801 | Serial No. | | | | | | ring Diagran | _ | | 1-0101- | AILD-I | F265-001 | |
| ٨٥٥ | et No: | | | Spec No: P&ID: | 1 0101 [| PPID-F005 | : 001 | | Line / ve | ssel Numbe | r: Size | | 80mm | Sob | edule: | 80 |
| A55 | et No. | | | FaiD. | 1-0101-1 | |)-UU I | | Manufac | turer: | SIZE | 3 . | MSA | | edule. | 60 |
| Des | cription: | Transmitter for | r Carbon Monoxi | de (Room 101C) | | | | | Model: | turor. | | Ultima | a X5000 | | 1.2) | |
| Puro | chase Orde | er: | | | | | Vend | dor: | | | Tun | | | | s (Note 1) | |
| | uisition Nu | | | | | | - | Number: | | | | | | | , | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | | | | | | | | | |
| | Fluid State | : | | | | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | | |
| ON | Process D | ata Case (Flow:) | | Minimum: | | - 1 | Norma | l (Operating | g): | | Max | imum (F | ull Scale |): | Ur | nits: |
| E | Pressure: | | | | | | | | | | | | | | | |
| NO | Temperatu | re: | | | | | | | | | | | | | | |
| PROCESS CONDITIONS | Dacing D | | | 450 | | D-: | 1/- | . De | Du | | | NIZ | | | | |
| ËŠ | Design Pre | | | 150 | | Psig °C | Visco | r Pressure | PV: | | | N/A N/A | | | | :P |
| 00 | | Pipe Material subject Temperature: 20°C | | | | - | - | pressibility | (Z)· | | | N/A | | | | |
| PR | | GG / Density: N/A Pipe Material Ambient Temperature: 20°C ASolids: N/A Stainless Steel Tag: AIT-F8800 | | | | | _ | ing/Abradin | | N/A | | IN/A | | | J | |
| | | Pipe Material Ambient Temperature: 20°C 6 Solids: N/A Stainless Steel Tag: AIT-F8800 Application: Gas Monitoring | | | | | | Classificati | | Non Hazard | ous. Cor | osive | | | | |
| | % Solids: | | | | | | | ial Conditio | | N/A | , | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | | | | Resp | onse Time: | | 11 sec | | | | | | | |
| | Application | pplication: Gas Monitoring type: LCD Display | | | | | Tem | o Compens | ation: | | | | | | | |
| | Type: | Application: Gas Monitoring Type: LCD Display | | | | | Max | Distance to | Element: | | | | | | | |
| TRANSMITTER | | pplication: Gas Monitoring type: LCD Display | | | | | | ovals: | | CSA, ATEX | IECEx, | CE Mark | | | | |
| F | | Material: | | | | | + | ument Rang | | 0 | | to | | 95 | % | RH |
| S | Mounting: | | Integral | | | | _ | ration Rang | | | | to | | | | _ |
| RA | Signal / Pro | | 4-20 mA 24VDC | | | | | roller Displa | | | | to | | | | |
| _ | | oply Voltage: Connection: | 3/4" NPT | | | | Allov | vable Press rating Temp | | -40 | | to | | -60 | | С |
| | Output @ | | 3/4 141 1 | | | | Make | | perature. | MSA | | io | | -00 | | |
| | Accuracy: | | | +/- 3% | | | Mode | | | | Ult | ima X5 | 000 (No | te 2) | | |
| | | | | | | | | | | | | | , | | | |
| | | | | | | | | | | | | | | | | |
| | Sensor Typ | oe: | Carbon Monoxide | | | | O-Ri | ng Material: | | | | | | | | |
| | Body Mate | rial | | | | | Elect | rical Appro | val: | | | | | | | |
| _ | Electrode I | Material: | | | | | Cell | Constant: | | | | | | | | |
| | Insulation I | | | | | | Max | Flow Rate: | | | | | | | | |
| ELEMENT | Process C | | | | | | | dard: | | | | | | | | |
| ᆸ | | r Connection: | | | | | + | p. Compens | | - | | | | 000 | | |
| | Mounting A | | | | | | + | suring Rang | je: | MSA 0 | | to | 1 | 000 | PI | PM |
| | Insertion D | re Sensor: | | | | | Mode | ufacturer: | | XCell Toxic | | | | | | |
| | - oporatu | | | | | | 000 | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Line No: | | | | | | Outle | et Pressure: | | | | | | | | |
| Σ | Tap Size: | | | | | | Filter | (s): | | | | | | | | |
| STE | Loop Flow | / Indicator: | | | | | Tubir | ng: | | | | | | | | |
| SY | Loop Flow | Controller: | | | | | Cool | er Required | l: | | | | | | | |
| SAMPLE SYSTEM | Loop Flow: | | | | | - | Mate | | | | | | | | | |
| AMF | | oop Temperature: | | | | | | l Valve(s) | | | | | | | | |
| တ် | | oop Pressure: | | | | | _ | Time: | | | | | | | | |
| | Low Flow Cell: | | | | | | Analy | ysis Time: | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1 Manufac | turer and model | s were standarding | ed by the City via RFP 44 | 9-2014 50 | alternatos | reuha | titutee will b | e accento | 4 | | | | | | |
| | | | ith two output rela | | C 2017, 110 8 | omates 0 | . Juij5 | u.co WIII D | .o aooepie(| | | | | | | |
| ES | | | J Galput IGIA | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | A | - I | I | - 1 | 1 | | D | ATA SHEET | NO. | REV. |
|--------------------|----------------------------|------------------|---|------------------|--------------|------------|--------------|---------------------|-----------|---------------|---------|------------|---------------|------------------|-------|
| | 176 | | | | | An | aıy: | zer In: | strun | nent | | | DST-AIT-F8 | 802 | 0 |
| | KC | | | | | | Ca | rbon Mo | noxide | | | SHEE | T 1 | OF | 1 |
| | GRO | | | | NO. | DAT | E | | REV | ISION | | BY | CHK'D | PROC. | APPR. |
| | GRO | UP | | | 0 | 2022 1 | 4 07 | ı | ssued for | Addendum | | DG | JP | gnes | gas |
| | | | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107- | .015 | | | | | | | | | | | |
| - 10 | ojeci. | | Z1-010 <i>1</i> - | 013 | | | | | | | | | | | |
| ТА | G NO: | ΔΙΤ | -F8802 | Serial No. | | | | | Loop Wir | ing Diagrams: | : | 1 | -0101-AILD- | F264-001 | |
| | | AH | 1 0002 | Spec No: | | | | | | ssel Number: | | | | | |
| Ass | et No: | | | P&ID: | 1-0101 | I-PPID-F00 | 8-001 | | Line ID: | | Size |) : | | edule: | |
| Des | scription: | Transmitter for | r Carbon Monoxid | e (Building 102) | | | | | Manufac | turer: | | 1.00 | MSA | 4.0\ | |
| Dur | ahaaa Ord | | l | | | | Van | alo.e. | Model: | | Tun | | X5000 (Note | | |
| _ | chase Orde | | | | | | Ven | Number: | | | run | ura Proc | cess Solution | s (Note 1) | 1 |
| Nec | uisition Nu | imber. | | | | | JOD | Number. | | | | | | | |
| | Fluid: | | l | | | | | | | | | | | | |
| | Fluid State | : | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| SNS | Process Da | ata Case (Flow:) | | Minimum: | | | Norma | l (Operating |): | | Maxi | mum (Fu | ıll Scale): | Ur | nits: |
| E | Pressure: | | | | | | | | | | | | | | |
| PROCESS CONDITIONS | Temperatu | ire: | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | |
| SS | Design Pre | essure: | | 150 | | Psig | Vapo | or Pressure | Pv: | | | N/A | | | |
| SCE | Design Ter | mperature: | | 10 to 50 | | °C | Visc | osity: | | | | N/A | | C | P. |
|)RC | SG / Densi | ity: | | N/A | | | Com | pressibility (| Z): | | | N/A | | | |
| щ | Pipe Mater | rial | | | | | Coat | ing/Abradin | g: | N/A | | | | | |
| | | emperature: | 20°C | | | | Area | Classificati | on: | Non Hazardou | s, Corr | osive | | | |
| | % Solids: | | N/A | | | | Spec | cial Conditio | n: | N/A | | | | | |
| | | | | | | | | | | | | | | | |
| | Ctainless | Steel Ton | | | | Deer | once Times | | 11 sec | | | | | | |
| | Stainless S Application | | | | | | p Compens | | 11 Sec | | | | | | |
| | Type: | i. | Gas Monitoring LCD Display | | | | + | Distance to | | | | | | | |
| ~ | Enclosure | Class: | NEMA 4X | | | | + | ovals: | Liement. | CSA, ATEX, IE | CEx (| CF Marki | na | | |
| TRANSMITTER | Enclosure | | TALIND CAR | | | | + * * | ument Rang | e: | 0 | JOEX, C | to | 95 | % | RH |
| IM: | Mounting: | | Integral | | | | | ration Rang | | - | | to | | - ^ | |
| NS NS | Signal / Pro | otocol: | 4-20 mA | | | | _ | roller Displa | | | | to | | _ | |
| TR/ | Power Sup | ply Voltage: | 24VDC | | | | Allov | wable Press | sure: | | | to | | | |
| · | Electrical C | Connection: | 3/4" NPT | | | | Ope | rating Temp | erature: | -40 | | to | +60 | | C |
| | Output @ | Tx Failure: | | | | | Make | э: | | MSA | | | | | |
| | Accuracy: | | | +/- 3% | | | Mod | el: | | | Ult | ima X50 | 000 (Note 2) | | |
| | | | | | | | | | | | | | | | |
| | | | ı | | | | | | | | | | | | |
| | Sensor Typ | | Carbon Monoxide | | | | + | ng Material: | | | | | | | |
| | Body Mate | | | | | | | trical Approv | /al: | | | | | | |
| ⊨ | Electrode I | | | | | | | Constant: | | | | | | | |
| | Insulation I | | | | | | | Flow Rate: | | | | | | | |
| ELEMENT | Process Co | r Connection: | | | | | _ | dard: p. Compens | ation: | | | | | | |
| ш | Mounting A | | | | | | | suring Rang | | 0 | | to | 1000 | P | PM |
| | Insertion D | | | | | | | ufacturer: | | <u> </u> | | .0 | | | |
| | | re Sensor: | | | | | Mod | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Line No: | | | | | | Outle | et Pressure: | | | | | | | |
| Σ | Tap Size: | | | | | | Filter | r(s): | | | | | | | |
| STE | Loop Flow | / Indicator: | | | | | Tubi | ng: | | | | | | | |
| Sγ | Loop Flow | Controller: | | | | | Cool | er Required | : | | | | | | |
| J. | Loop Flow: | | | | | | Mate | erial: | | | | | | | |
| SAMPLE SYSTEM | Loop Temp | | | | | | + | d Valve(s) | | | | | | | |
| Ś | Loop Press | | | | | | _ | e Time: | | | | | | | |
| | Low Flow (| Low Flow Cell: | | | | | Anal | ysis Time: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1 Marie | aturor and a 1 | o woro ctond!- | 1440 2011 | altomat | rout | titutes | 0.0000-1 | 4 | | | | | | |
| | | | s were standardized ith two output relays | 449-2014, NO | allernates 0 | u subs | uuues WIII b | e accepted | ı. | | | | | | |
| SE | Z. Hansini | we to moduce w | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| | | | | | | Flov | vm | eter l | nstru | ment | | | ΓΑ SHEET | | REV. |
|--------------------|-------------|--|------------------------|---------------------------|--------------|--------------|---------|----------------|-------------|--------------|----------|----------------|-----------|---------|-------|
| | KI | is | | | | | | | | | | | T-FIT-F07 | | 0 |
| | JEL | | | | | | | Magn | | | | SHEET | 1 | OF | 1 |
| | GRC | UP | | | NO. | DAT | | | | /ISION | | BY | CHK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 8 05 | | ssued for | Constructio | n | DG | JP | | |
| | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| | , | | 21 0107 | | | | | | | | | | | | |
| TA | G NO: | FIT- | F07703 | Serial No. | | | | | | ring Diagran | _ | | 101-AILD- | | |
| | | | . 07700 | Spec No: | | | | | | ssel Numbe | | | 5-FC-PVC | | 1 |
| Ass | et No: | | | P&ID: | 1-0101- | PPID-F00 | 7-001 | | Line ID: | | Si | | | edule: | |
| Des | cription: | MAGNETIC F | LOWMETER TRA | ANSMITTER WITH LO | OCAL INDI | CATION | | | Manufac | turer: | | | iemens | | |
| | | | | | | | | | Model: | | Sitra | ıns FM Mag | | M Mag 1 | 100 |
| Purc | chase Orde | er: | | | | | Ven | ndor: | | | | Tra | ins-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| | Fluid State | : : | Liquid | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| <u>Ó</u> | Process D | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | M | aximum (Full S | Scale): | Uı | nits: |
| \vdash | Flow: | | | 8 | | | | 167 | | | | 792 | | L | /hr |
| Ž | Pressure: | | | 60 | | | | 60 | | | | 60 | | р | sig |
| \mathcal{S} | Temperatu | ıre: | | 0 | | | | 20 | | | | 30 | | , | °C |
| SS | | | | | | | | | | | | | | | |
| Ä | Design Pre | essure: | | 150 | | psig | Vap | or Pressure | Pv: | | | N/A | | | |
| PROCESS CONDITIONS | Design Te | mperature: | | -10 to 50 | | °C | Visc | osity: | | | | N/A | | | |
| R R | Lower SG | / Density: | | 1.39 | | | Com | npressibility | (Z): | | | N/A | | | |
| | Higher SG | gher SG / Density: 1.46 De Material PVC | | | | | Spe | cial Condition | on: | | | N/A | | • | |
| | Pipe Mater | rial | | PVC | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | inting Orien | tation: | | | | | | |
| | End Conne | ection: | | | | | Mou | ınting Kit: | | | | | | | |
| | End Conne | ection Material: | | | | | Flan | nge / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | Flan | ige Type: | | | | | | | |
| Ш | Lining Prof | tector: | Note 2 | | | | Flan | nge Material | : | | | | | | |
| 2 | Electrode ' | Туре: | Note 2 | | | | Allov | w. Operating | g Velocity: | | | to | | | |
| | Electrode I | Material: | Note 2 | | | | Encl | losure Class | s: | NEMA 4X | | | | ı | |
| | Grounding | Rings: | | | | | Elen | ment Model | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-F07703 | | | | Wet | ted O-Ring | Material: | | | | | | |
| | Application | n: | | | | | Fill F | Fluid: | | | | | | | |
| | Type: | | | | | | Elev | ation: | | | | | | | |
| | Enclosure | Class: | NEMA 4X | | | | Sup | pression: | | | | | | | |
| K | Housing: | | Fiberglass-Reinfor | ced Polymide | | | Instr | rument Ran | ge: | | | to | | | |
| E | Mounting: | | Local | • | | | _ | bration Ran | | | | to | | | |
| \geq | Signal / Pr | rotocol: | Profibus PA (Note: | 3) | | | | troller Displa | | | | to | | | |
| TRANSMITTER | Power Sup | | 24 VDC | | | | _ | ic Pressure | | | | to | | | |
| RA | | Connection: | 4x1/2" NPT | | | | | w. Oper Pre | | | | to | | | |
| F | Accuracy: | | 0.25% | | | | | w. Oper Ter | | | | to | | | |
| | Response | Time: | | | | | _ | imum Statio | - | | | | | | |
| | Element M | | | | | | _ | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mod | | | Sitran F M I | /lag Sei | ries 6000 | | | |
| | | | · | | | | | | | | | , | | | |
| | | | | | | | | | | | | | | | |
| N | Integral Me | otor: | I | | | | H. d | rostatic Tes | ting: | | | | | | |
| OPTION | | UIUI. | | | | inting Brack | | | | | | | | | |
| О | Scale: | | | | | | IVIOU | many black | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1 Marris | oturor and | wore stand! | I by the City via DED 440 | 2014 ' | tornete - | ouh-r. | tutos will L | 000001 | | | | | | |
| | | tion to be provide | | by the City via RFP 449 | 2014, 110 dl | comates of | งนมร์(i | iuico WIII DE | accepted. | | | | | | |
| S | | | rd Profibus PA Mod | ule | | | | | | | | | | | |
| NOTES | J. Comple | with option Ca | IG I TOTIDUS PA IVIOUI | uio | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | |

| | | | | | | Flov | νm | eter l | nstru | ment | | | A SHEET | | REV. |
|--------------------|------------------------|---|--------------------|-------------------------|-------------|--------------|--------|----------------|-------------|----------------|----------|-------------|-----------|----------|-------------|
| | KI | is | | | | | | | | | | | T-FIT-F07 | | 0 |
| | PE | | | | | | | Magn | | | | SHEET | 1 | OF | 1 |
| | GRC | UP | | | NO. | DAT | | | | ISION | | BY | CHK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 8 05 | | ssued for | Construction | | DG | JP | | |
| | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| | , | | 21 0107 | | | | | | | | | | | | |
| TA | G NO: | FIT- | F07713 | Serial No. | | | | | | ring Diagrams: | | | | F224-001 | |
| | | | . 077.10 | Spec No: | | | | | | ssel Number: | | 1 | 5-FC-PV0 | | |
| Asse | et No: | | | P&ID: | 1-0101- | PPID-F00 | 7-001 | | Line ID: | | Size: | 15r | mm Sch | edule: | |
| Des | cription: | MAGNETIC F | LOWMETER TRA | ANSMITTER WITH LO | OCAL INDI | CATION | | | Manufac | | | | iemens | | |
| | | | | | | | | | Model: | S | itrans | | | M Mag 11 | 100 |
| Purc | hase Ord | er: | | | | | Ven | ndor: | | | | Trai | ns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| | Fluid State | : : | Liquid | | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | |
| ō | Process D | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | Maxim | num (Full S | cale): | Ur | nits: |
| PROCESS CONDITIONS | Flow: | | | 8 | | | | 167 | | | | 792 | | L | /hr |
| Ν̈́ | Pressure: | | | 60 | | | | 60 | | | | 60 | | р | sig |
| \mathcal{C} | Temperatu | ıre: | | 0 | | | | 20 | | | | 30 | | | °C |
| SS | | | | | | | | | | | | | | | |
| ĕ | Design Pre | essure: | | 150 | | psig | Vap | or Pressure | Pv: | | | N/A | | | |
| õ | Design Te | mperature: | | -10 to 50 | | °C | Visc | osity: | | | | N/A | | | |
| P. | Lower SG | / Density: | | 1.39 | | | Com | pressibility | (Z): | | | N/A | | | |
| | Higher SG | pher SG / Density: 1.46 pe Material PVC | | | | | Spe | cial Condition | on: | | | N/A | | | |
| | Pipe Mater | rial | | PVC | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | inting Orien | tation: | | | | | | |
| | End Conne | ection: | | | | | Mou | nting Kit: | | | | | | | |
| | End Conne | ection Material: | | | | | Flan | ige / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | Flan | ge Type: | | | | | | | |
| Ш | Lining Prof | tector: | Note 2 | | | | Flan | ge Material | : | | | | | | |
| 2 | Electrode ¹ | Туре: | Note 2 | | | | Allov | w. Operating | g Velocity: | | | to | | | |
| | Electrode l | Material: | Note 2 | | | | Encl | losure Class | s: | NEMA 4X | | | | | |
| | Grounding | Rings: | | | | | Elen | nent Model | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | _ | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-F07713 | | | | Wet | ted O-Ring | Material: | | | | | | |
| | Application | n: | | | | | Fill F | Fluid: | | | | | | | |
| | Type: | | | | | | Elev | ration: | | | | | | | |
| | Enclosure | Class: | NEMA 4X | | | | Sup | pression: | | | | | | | |
| 2 | Housing: | | Fiberglass-Reinfor | ced Polymide | | | | rument Ran | ge: | | | to | | | |
| Ë | Mounting: | | Local | - | | | _ | bration Ran | | | | to | | | |
| TRANSMITTER | Signal / Pr | rotocol: | Profibus PA (Note: | 3) | | | _ | troller Displa | | | | to | | _ | |
| NS | Power Sup | | 24 VDC | | | | _ | ic Pressure | | | | to | | | |
| RA | | Connection: | 4x1/2" NPT | | | | _ | w. Oper Pre | | | | to | | -+ | |
| H | Accuracy: | | 0.25% | | | | _ | w. Oper Ter | | | | to | | _ | |
| | Response | Time: | | | | | | imum Statio | - | | | | | | |
| | Element M | | | | | | _ | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mod | | | Sitran F M Mag | Series 6 | 6000 | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| S | Integral Me | eter: | | | | | Hyd | rostatic Tes | ting: | | | | | | |
| OPTION | Scale: | | | | | inting Brack | | | | | | | | | |
| Q | Jouro. | | | | | | | g Drack | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1 Manufa | cturer and models | were standardizad | by the City via RFP 449 | -2014 no ch | ternates of | suboti | tutos will bo | accented | | | | | | |
| | | tion to be provide | | , Ony via Ni 1 449 | , no an | | JUDGE | .3.00 **** | accepted. | | | | | | |
| S | | | rd Profibus PA Mod | ule | | | | | | | | | | | — [] |
| NOTES | J. Jonnpie | opaon oa | | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | Flov | νm | eter l | nstru | ment | | | A SHEET | | REV. |
|--------------------|-------------|--------------------|---------------------|-------------------------|----------------|-------------|--------|----------------|-----------|---------------|--------|---------------|-----------|----------|-------|
| | KI | is | | | | | | | | | | | T-FIT-F07 | | 0 |
| | M | | | | | | | Magn | | | | SHEET | 1 | OF | 1 |
| | GRO | DUP | | | NO. | DAT | Έ | | REV | /ISION | | BY | CHK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 8 05 | I | ssued for | Construction | | DG | JP | | |
| | | | | | | | | | | | | | | | |
| Dro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| - 10 | Ject. | | 21-0107 | -013 | | | | | | | | | | | |
| Τ. | G NO: | EIT | F07723 | Serial No. | | | | | Loop Wi | ring Diagrams | s: | 1-01 | 101-AILD- | F225-001 | |
| IA | G NO. | | FU//23 | Spec No: | | | | | Line / Ve | ssel Number: | | 1: | 5-FC-PV0 | 4-0724 | |
| Asse | et No: | | | P&ID: | 1-0101-l | PPID-F00 | 7-001 | | Line ID: | | Siz | ze: 15r | mm Sch | edule: | |
| Doc | cription: | MACNETIC E | I OWMETER TR | ANSMITTER WITH L | OCAL INDI | CATION | | | Manufac | turer: | | S | iemens | | |
| Des | cription. | MAGNETICT | LOWINETER TIO | ANSWITTER WITTE | OCAL INDI | CATION | | | Model: | | Sitra | ns FM Mag | 6000 & F | M Mag 1 | 100 |
| Purc | hase Ord | er: | | | | | Ven | ndor: | | | | Tra | ns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| | Fluid State |): | Liquid | | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | |
| O | Process D | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | Ма | ximum (Full S | cale): | Uı | nits: |
| Ε | Flow: | | | 8 | | | | 167 | | | | 792 | | L | /hr |
| g | Pressure: | | | 60 | | | | 60 | | | | 60 | | р | sig |
| Ö | Temperatu | ıre: | | 0 | | | | 20 | | | | 30 | | | °C |
| PROCESS CONDITIONS | | | | | | | | | | | | | | | |
| ES | Design Pre | essure: | | 150 | | psig | Vap | or Pressure | Pv: | | | N/A | | | |
| $^{\circ}$ | | mperature: | | -10 to 50 | | °C | + - | osity: | | | | N/A | | | |
|) | Lower SG | | | 1.39 | | _ | | pressibility | (Z): | | | N/A | | | |
| _ | Higher SG | | | 1.46 | | | - | cial Condition | | | | N/A | | <u> </u> | |
| | Pipe Mater | | | PVC | | 1 | | | | | | .,,,, | | | |
| | 1 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | inting Orien | tation: | | | | | | |
| | End Conne | | | | | | | inting Kit: | | | | | | | |
| | | ection Material: | | | | | | ige / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | | Note 2 | | | | | ige Type: | J | | | | | | |
| Ш | Lining Prof | | Note 2 | | | | - | ge Material | : | | | | | | |
| Σ | Electrode | | Note 2 | | | | _ | w. Operating | | | | to | | | |
| | Electrode | ** | Note 2 | | | | + | losure Class | • | NEMA 4X | | .0 | | <u> </u> | |
| | Grounding | | | | | | + | nent Model | | Note 2 | | | | | |
| | 3 | <u> </u> | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-F07723 | | | | Wet | ted O-Ring | Material: | | | | | | |
| | Application | <u> </u> | | | | | Fill F | Fluid: | | | | | | | |
| | Type: | | | | | | + | ration: | | | | | | | |
| | Enclosure | Class: | NEMA 4X | | | | | pression: | | | | | | | |
| 2 | Housing: | | Fiberglass-Reinfor | ced Polymide | | | _ | rument Ran | ge: | | | to | | | |
| Ë | Mounting: | | Local | • • • | | | - | bration Ran | | | | to | | | |
| Σ | Signal / Pr | rotocol: | Profibus PA (Note: | 3) | | | | troller Displa | | | | to | | | |
| TRANSMITTER | Power Sup | | 24 VDC | * | | | - | ic Pressure | | | | to | | | |
| RA | | Connection: | 4x1/2" NPT | | | | | w. Oper Pre | | | | to | | _ | |
| H | Accuracy: | | 0.25% | | | | | w. Oper Ter | | | | to | | | |
| | Response | Time: | | | | | + | imum Statio | • | | | | | | |
| | Element M | | | | | | - | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mod | | | Sitran F M Ma | a Seri | ies 6000 | | | |
| | | | | | | | | | | | J | | | | |
| | | | | | | | | | | | | | | | |
| 8 | Integral Me | eter: | l | | | | Hvdi | rostatic Tes | ting: | | | | | | |
| OPTION | Scale: | | | | | | | inting Brack | | | | | | | |
| Ō | | | | | | | | J | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1. Manufad | cturer and models | s were standardized | by the City via RFP 449 | 9-2014, no ali | ternates or | substi | tutes will be | accepted. | | | | | | |
| | | tion to be provide | | <u> </u> | | | | | - | | | | | | |
| ES | | | rd Profibus PA Mod | ule | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| Г | | | | | | Flov | vm | eter I | nstru | ment | | | TA SHEET | | REV. |
|---------------|---------------|--------------------|-----------------------|--------------------------|-------------|-------------|---------|----------------|-------------|--------------|----------|--------------|------------|----------|--------|
| Ш | K(| is | | | | | | Magn | etic | | | SHEET | _ | OF | 1 |
| | | | | | NO. | DAT | F | Magn | | /ISION | | BY | CHK'D | PROC. | |
| | GRC | UP | | | | | | | | | | | | FROC. | . AFFR |
| | | | | | 0 | 2022 1 | 8 05 | | issued for | Construction | 1 | DG | JP | | |
| | | 1 | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107 | -015 | | | | | | | | | | | |
| | ., | | 21 0101 | 010 | | | | | | | | | | | |
| т. | G NO: | CIT | F08303 | Serial No. | | | | | Loop Wi | ring Diagran | ns: | 1-(| 0101-AIFS- | F202-001 | 1 |
| l'A | G NO. | | F00303 | Spec No: | | | | | Line / Ve | essel Numbe | r: | 1 | 5-SHD-PV | 04-0817 | |
| Ass | et No: | | | P&ID: | 1-0101- | PPID-F00 | 8-001 | | Line ID: | | Si | ze: 1 | 5mm Sch | edule: | |
| (| | MACNETICE | OWNETED TO | ANOMITTED MUTILLIC | OAL INDI | OATION | | | Manufac | turer: | | | Siemens | | • |
| Des | cription: | MAGNETICF | LOWMETER IRA | ANSMITTER WITH LC | CAL INDI | CATION | | | Model: | | Sitra | ns FM Ma | g 6000 & F | M Mag 1 | 100 |
| Puro | chase Orde | er: | | | | | Ven | dor: | | | | | ans-West | | |
| Red | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Sodium Hydroxide | | | | | | | | | | | | |
| | Fluid State | | | | | | | | | | | | | | |
| ٠, | Fluid State | | Liquid | | | | | | | | | | | | |
| Š | | | | | | | | | | | | | | | |
| 9 | | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | Ma | aximum (Full | Scale): | | Jnits: |
| CONDITIONS | Flow: | | | 8 | | | | 67 | | | | 792 | | ļ | L/hr |
| Z | Pressure: | | | 60 | | | | 60 | | | | 60 | | | psig |
| \mathcal{C} | Temperatu | ire: | | 15 | | | | 20 | | | | 30 | | | °C |
| PROCESS (| | | | | | | | | | | | | | | |
| 贸 | Design Pre | essure: | | 150 | | psig | Vapo | or Pressure | Pv: | | | N/A | | | |
| 00 | | mperature: | | 10 to 50 | | °C | | osity: | | | | 36 | | | сР |
| 2 | Lower SG | | | N/A | | | _ | pressibility | (Z): | | | N/A | | | |
| _ | Higher SG | | | 1.53 | | | | cial Condition | | | | N/A | \ | l l | |
| | Pipe Mater | | | PVC | | | Орос | olai Corialii | JII. | | | 14// | • | | |
| | i ipe iviatei | itai | | 1 10 | | | | | | | | | | | |
| | | | | | | | _ | | | | | | | | |
| | 0 " | 0: | ı | | | | | | : | | | | | | |
| | Connection | | | | | | | nting Orien | tation: | | | | | | |
| | End Conne | | | | | | _ | nting Kit: | | | | | | | |
| ~ | | ection Material: | | | | | | ge / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | Flan | ge Type: | | Note 2 | | | | | |
| Æ. | Lining Prof | tector: | Note 2 | | | | Flan | ge Material | : | Note 2 | | | | | |
| _ | Electrode ' | Туре: | Note 2 | | | | Allov | w. Operatin | g Velocity: | | | to | | | |
| | Electrode I | Material: | Note 2 | | | | Encl | osure Clas | s: | NEMA 4X | | | | | |
| | Grounding | Rings: | | | | | Elen | nent Model | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-F08303 | | | | Wett | ted O-Ring | Material: | | | | | | |
| | Application | - | | | | | Fill F | Fluid: | | | | | | | |
| | Туре: | | | | | | | ation: | | | | | | | |
| | Enclosure | Class | NEMA 4X | | | | | | | | | | | | |
| œ | | Class. | | and Delimeter | | | | pression: | | | | 1.1 | | 1 | _ |
| TRANSMITTER | Housing: | | Fiberglass-Reinford | bed Polyiniae | | | | ument Ran | | | | to | | | |
| Ħ | Mounting: | | Local | N | | | _ | bration Ran | - | - | | to | | | |
| S | Signal / Pr | | Profibus PA (Notes | 3) | | | | troller Displ | | | | to | | | |
| A | Power Sup | | 24 VDC | | | | | ic Pressure | | | | to | | _ | |
| TR | Electrical (| Connection: | 4x1/2" NPT | | | | _ | w. Oper Pre | | | | to | | | |
| | Accuracy: | | 0.25% | | | | Allov | w. Oper Tei | mperature: | | | to | | | |
| | Response | Time: | | | | | Maxi | imum Statio | Pressure | | | | | | |
| | Element M | laterial: | | | | | Man | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mod | el: | | Sitran F M N | lag Seri | ies 6000 | | | |
| | | | • | | | | | | | | | | | | |
| _ | | | | | | | | | | | | | | | |
| 6 | Integral Me | eter: | | | | | Hydr | rostatic Tes | ting: | | | | | | |
| OPTION | Scale: | | | | | | | nting Brack | | | | | | | |
| Ō | | | | | | | | 3 = . = . | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1. Manufa | cturer and models | were standardized | by the City via RFP 449- | 2014 no ali | ternates or | suhetit | tutes will he | accepted | | | | | | |
| | | tion to be provide | | _, o., na m 1 440- | | | | | . accopiou. | | | | | | |
| က္သ | | | d Profibus PA Modu | ıle | | | | | | | | | | | |
| NOTES | o. Comple | o with option cal | a i folibus FA IVIOUI | aic . | | | | | | | | | | | |
| S | <u> </u> | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| Г | | | | | | Flov | vm | eter I | nstru | ment | | | TA SHEET | | REV. |
|---------------|--------------|--------------------|---------------------|--------------------------|-------------|--|---------|----------------|-------------|----------------|---------|-----------|-----------|---------|--------|
| | K(| is | | | | | | Magn | etic | | | SHEET | 1 1 | OF | 1 |
| | | | | | NO. | DAT | F | Magn | | /ISION | | BY | CHK'D | PROC | |
| | GRC | UP | | | | | | | | | | 1 | | FROC | . AFFR |
| | | | | | 0 | 2022 1 | 8 05 | ' | ssued for | Construction | | DG | JP | | |
| | | 1 | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| ` | ,, | | 21 0107 | 010 | | | | | | | | | | | |
| ΤΛ. | G NO: | CIT | F08313 | Serial No. | | | | | Loop Wi | ring Diagrams: | | 1-0 | 101-AIFS- | F202-00 | 1 |
| 10 | G NO. | | 1 00313 | Spec No: | | | | | Line / Ve | essel Number: | | 1 | 5-SHD-PV | 04-0818 | |
| Ass | et No: | | | P&ID: | 1-0101- | PPID-F00 | 8-001 | | Line ID: | | Size | e: 15 | mm Sch | edule: | |
| | | | | | | | | | Manufac | turer: | - | | Siemens | | • |
| Des | cription: | MAGNETICF | LOWMETER IRA | ANSMITTER WITH LC | CAL INDI | CATION | | | Model: | | Sitrans | F M Mad | 6000 & F | M Mag 1 | 1100 |
| Puro | hase Orde | er: | | | | | Ven | dor: | | | | | ans-West | | |
| | uisition Nu | | | | | | | Number: | | | | | | | |
| rtoq | aloition 140 | imber. | | | | | OOD | rambor. | | | | | | | |
| | Fluid: | | Carlings Unideanida | | | | | | | | | | | | |
| | | | Sodium Hydroxide | | | | | | | | | | | | _ |
| | Fluid State | : | Liquid | | | | | | | | | | | | |
| SZ | | | | | | | | | | | | | | | |
| CONDITIONS | | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | Maxi | mum (Full | Scale): | | Jnits: |
| \exists | Flow: | | | 8 | | | | 67 | | | | 792 | | | L/hr |
| Ž | Pressure: | | | 60 | | | | 60 | | | | 60 | | | psig |
| \mathcal{C} | Temperatu | ire: | | 15 | | | | 20 | | | | 30 | | | °C |
| SS | | | | | | | | | | | | | | | |
| Ë | Design Pre | essure: | | 150 | | psig | Vapo | or Pressure | Pv: | | | N/A | | | |
| $^{\circ}$ | | mperature: | | 10 to 50 | | °C | | osity: | | | | 36 | | | cР |
| PROCESS | Lower SG | | | N/A | | | | pressibility | (7): | | | N/A | | | - |
| - | Higher SG | | | 1.53 | | | _ | cial Condition | | | | N/A | | l l | |
| | | | | PVC | | | Spec | ciai Coriulli | JII. | | | IN/A | | | |
| | Pipe Mater | ıaı | | FVC | | | | | | | | | | | |
| | | | | | | | _ | | | | _ | _ | | _ | |
| | | | 1 | | | | | | | | | | | | |
| | Connection | | | | | | | nting Orien | tation: | | | | | | |
| | End Conne | | | | | | _ | nting Kit: | | | | | | | |
| œ | End Conne | ection Material: | | | | | Flan | ge / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | Flan | ge Type: | | Note 2 | | | | | |
| Ψ. | Lining Prof | tector: | Note 2 | | | | Flan | ge Material | : | Note 2 | | | | | |
| 2 | Electrode ' | Туре: | Note 2 | | | | Allov | w. Operatin | g Velocity: | | | to | | | |
| | Electrode | Material: | Note 2 | | | | Encl | osure Class | S: | NEMA 4X | | | | | |
| | Grounding | Rings: | | | | | Elem | nent Model | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tan: | FIT-F08313 | | | | Wett | ted O-Ring | Material: | | | | | | _ |
| | Application | - | 111 1 00010 | | | | Fill F | | wateriai. | | | | | | |
| | | | | | | | | ation: | | | | | | | |
| | Type: | 01 | NEMA AV | | | | | | | | | | | | _ |
| ~ | Enclosure | Class: | NEMA 4X | | | | | pression: | | - | | | | | |
| TRANSMITTER | Housing: | | Fiberglass-Reinford | cea Polymide | | | | ument Ran | | | | to | | | |
| ŧ. | Mounting: | | Local | | | | _ | oration Ran | | | | to | | | |
| SIN | Signal / Pr | | Profibus PA (Note: | 3) | | | | troller Displ | | | | to | | | |
| Z | Power Sup | oply: | 24 VDC | | | | Stati | ic Pressure | Range: | | | to | | | |
| T. | Electrical (| Connection: | 4x1/2" NPT | | | | Allov | v. Oper Pre | ssure: | | | to | | | |
| | Accuracy: | | 0.25% | | | | Allov | v. Oper Ter | mperature: | | | to | | | |
| | Response | Time: | | | | | Maxi | imum Statio | Pressure | | | | | | |
| | Element M | laterial: | | | | | Man | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mod | el: | | Sitran F M Mag | Series | s 6000 | | | |
| | | | | | | | | | | · | | | | | |
| | | | | | | | | | | | | | | | |
| N | Intogral Me | ton | | | | | Llude | roototio Too | tings | | | | | | |
| Ĭ | Integral Me | oldi. | - | | | | | rostatic Tes | | | | | | | |
| OPTION | Scale: | | | | | | Wou | nting Brack | ets: | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | by the City via RFP 449- | 2014, no al | ternates or | substit | tutes will be | accepted. | | | | | | |
| S | | tion to be provide | | | | | | | | | | | | | |
| NOTES | 3. Complet | te with option Car | rd Profibus PA Modu | ule | | | | | | | | | | | |
| Ō | | | · | | | | | - | - | | | | | | |
| 2 | | | | | | | | | | | | | | | |
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|--------------------|--------------|---|---------------------|------------------------|---------------|-------------|--------|----------------|-------------|---------|-----------|------------|--------|-----------|---------|-------|
| | KI | is | | | | | | | | | | 01.11 | | T-FIT-F08 | | 0 |
| | A | | | | | | | Magn | | | | SHI | | 1 | OF | 1 |
| | GRC | UP | | | NO. | DAT | | | | /ISION | | В | | CHK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 8 05 | I | Issued for | Constr | uction | D | G | JP | | |
| | | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | | |
| | , | | 21 0107 | | | | | | | | | | | | | |
| TA | G NO: | FIT- | F08323 | Serial No. | | | | | Loop Wi | | _ | | | 101-AIFS- | | |
| | | | . 00020 | Spec No: | | | | | Line / Ve | essel N | | | 15 | -SHD-PV | | |
| Asse | et No: | | | P&ID: | 1-0101- | PPID-F00 | 8-001 | | Line ID: | | | Size: | 15r | | edule: | |
| Des | cription: | MAGNETIC F | LOWMETER TRA | ANSMITTER WITH L | OCAL INDI | CATION | | | Manufac | turer: | | | | emens | | |
| | | | | | | | | | Model: | | Siti | rans FM | | | M Mag 1 | 100 |
| Purc | hase Ord | er: | | | | | Ven | ndor: | | | | | Tra | ns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | Sodium Hydroxide | | | | | | | | | | | | | |
| | Fluid State |): | Liquid | | | | | | | | | | | | | |
| SZ | | | | | | | | | | | | | | | | |
| Ö | Process D | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | | Maximum (| Full S | cale): | U | nits: |
| E | Flow: | | | 8 | | | | 67 | | | | 79 | 92 | | L | /hr |
| PROCESS CONDITIONS | Pressure: | | | 60 | | | | 60 | | | | 6 | 0 | | | sig |
| \mathcal{C} | Temperatu | ıre: | | 15 | | | | 20 | | | | 3 | 0 | | | °C |
| SS | | | | | | | | | | | | | | | | |
| Ä | Design Pre | essure: | | 150 | | psig | Vap | or Pressure | Pv: | | | N/A | | | | |
| õ | Design Te | mperature: | | 10 to 50 | | °C | Visc | osity: | | | | 36 | | | | cР |
| Ч | Lower SG | / Density: | | N/A | | | Com | npressibility | (Z): | | | N/A | | | | |
| | Higher SG | igher SG / Density: 1.53 ipe Material PVC | | | | | Spe | cial Condition | on: | | | | N/A | | | |
| | Pipe Mater | rial | | PVC | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | inting Orien | tation: | | | | | | | |
| | End Conne | ection: | | | | | Mou | inting Kit: | | | | | | | | |
| ~ | End Conne | ection Material: | | | | | Flan | ige / Wafer | Rating: | Note 2 | 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | Flan | ige Type: | | Note 2 | 2 | | | | | |
| ΙĐ | Lining Prof | tector: | Note 2 | | | | Flan | ige Material | : | Note 2 | 2 | | | | | |
| 2 | Electrode ' | Type: | Note 2 | | | | Allov | w. Operating | g Velocity: | | | to | | | | |
| | Electrode l | Material: | Note 2 | | | | Encl | losure Class | s: | NEMA | 4X | | | | | |
| | Grounding | Rings: | | | | | Elen | nent Model | Number: | Note 2 | 2 | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-F08323 | | | | Wet | ted O-Ring | Material: | | | | | | | |
| | Application | n: | | | | | Fill F | Fluid: | | | | | | | | |
| | Туре: | | | | | | Elev | ation: | | | | | | | | |
| | Enclosure | Class: | NEMA 4X | | | | Supp | pression: | | | | | | | | |
| ER | Housing: | | Fiberglass-Reinford | ced Polymide | | | Instr | rument Ran | ge: | | | to | | | | |
| TRANSMITTER | Mounting: | | Local | | | | Calil | bration Ran | ge: | | | to | | | | |
| NS | Signal / Pr | otocol: | Profibus PA (Note: | 3) | | | Con | troller Displa | ay Range: | | | to | | | | |
| N | Power Sup | oply: | 24 VDC | | | | Stati | ic Pressure | Range: | | | to | | | | |
| LR/ | Electrical C | Connection: | 4x1/2" NPT | | | | Allov | w. Oper Pre | essure: | | | to | | | | |
| | Accuracy: | | 0.25% | | | | Allov | w. Oper Ter | mperature: | | | to | | | | |
| | Response | Time: | | | | | Max | imum Statio | Pressure | | | <u> </u> | | | | |
| | Element M | laterial: | | | | | Man | ufacturer: | | Sieme | ns | | | | ı | |
| | | | | | | | Mod | lel: | | Sitran | F M Mag S | eries 6000 | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| OPTION | Integral Me | eter: | | | | | Hvdi | rostatic Tes | ting: | | | | | | | |
| Ы | Scale: | | | | | | | inting Brack | | | | | | | | |
| Ō | | | | | | | | J | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1. Manufac | cturer and models | were standardized | by the City via RFP 44 | 9-2014, no al | ternates or | substi | tutes will be | accepted | | | | | | | |
| | | tion to be provide | | | , | | | | 1 | | | | | | | |
| SE | | | d Profibus PA Modu | ule | | | | | | | | | | | | |
| NOTES | <u> </u> | | | | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | | |
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| | | | | | | Flov | νm | eter I | nstru | ment | | ATA SHEET | | REV. |
|--------------------|--------------|--|---------------------|-------------------------|--------------|---------------|--------|----------------|------------|------------------|--------------|-----------|------------|-------|
| | KI | S | | | | | | | | | SHEE | ST-FIT-F8 | 7021 OF | 0 |
| | A | | | | NO | DAT | | Magn | | ICION | | | PROC. | 1 |
| | GRC | DUP | | | NO. | DAT | | | | ISION | BY | CHK'D | PROC. | APPR. |
| | | | | | 0 | 2022 1 | 8 05 | | ssued for | Construction | DG | JP | | |
| | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | |
| | Joot. | | 21-0101 | -013 | | | | | | | | | | |
| ΤΛ. | G NO: | EIT | F87021 | Serial No. | | | | | Loop Wir | ring Diagrams: | 1 | 0101-AIFS | -F202-001 | |
| IA | G NO. | | F0/UZI | Spec No: | | | | | Line / Ve | ssel Number: | | 80-FC-PV | 04-0748 | |
| Asse | et No: | | | P&ID: | 1-0101- | PPID-F00 | 4-001 | | Line ID: | | Size: 8 | 30mm Sch | nedule: | |
| | | | | ************ | | 0 1 T 1 0 1 1 | | | Manufact | turer: | • | Siemens | | • |
| Des | cription: | MAGNETICE | LOWMETER IRA | ANSMITTER WITH LO | OCAL INDI | CATION | | | Model: | | Sitrans | F M Mag | 6000 | |
| Purc | hase Orde | er: | | | | | Ven | ndor: | | | | rans-West | | |
| | uisition Nu | | | | | | | Number: | | | | | | |
| | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | |
| | Fluid State | | | | | | | | | | | | | |
| رم | Fluid State | | Liquid | | | | | | | | | | | |
| SZ | Dana C | | | Minimum | | | NI- | -1.(0 :: | -)- | | Maurice (5 | L Carda' | | |
| 2 | | ata Case (Flow:) | | Minimum: | | | INOrma | al (Operating | 3): | | Maximum (Ful | i ocale): | | nits: |
| 듬 | Flow: | | | 3.0 | | | | 5.4 | | | 7.0 | | | L/s |
| S | Pressure: | | | 60 | | | | 60 | | | 60 | | | sig |
| PROCESS CONDITIONS | Temperatu | ıre: | | 0 | | | | 20 | | | 30 | | | °C |
| SS | | | | | | | | | | | | | | |
| Ë | Design Pre | essure: | | 150 | | psig | Vap | or Pressure | Pv: | | N/A | | | |
| õ | Design Te | mperature: | | -10 to 50 | | °C | Visc | osity: | | | N/A | | | |
| PF | Lower SG | / Density: | | 1.39 | | | Com | pressibility | (Z): | | N/A | | | |
| | Higher SG | gher SG / Density: 1.46 De Material PVC | | | | | Spe | cial Condition | n: | | N/ | Ά | • | |
| | Pipe Mater | rial | | PVC | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | inting Orient | ation: | | | | | |
| | End Conne | ection: | | | | | Mou | inting Kit: | | | | | | |
| | End Conne | ection Material: | | | | | _ | ige / Wafer | Rating: | Note 2 | | | | |
| METER | Lining Mat | | Note 2 | | | | _ | ige Type: | | Note 2 | | | | |
| E | Lining Prof | | Note 2 | | | | _ | ge Material | | Note 2 | | | | |
| ≅ | Electrode | | Note 2 | | | | | w. Operating | | Note 2 | to | | | |
| | Electrode | ** | Note 2 | | | | _ | losure Class | | NEMA 4X | to | | | |
| | | | Note 2 | | | | _ | nent Model | | Note 2 | | | | |
| | Grounding | rkings. | | | | | Lieii | nent woder | Number. | Note 2 | | | | _ |
| | | | | | | | _ | | | | | | | |
| | Ctainless | Ctool Too | FIT-F87021 | | | | Mot | ted O-Ring | Matarial | | | | | _ |
| | Stainless S | <u> </u> | FII-F87021 | | | | | | wateriai: | | | | | |
| | Application | 1: | | | | | | Fluid: | | | | | | _ |
| | Type: | | | | | | | ration: | | | | | | |
| ~ | Enclosure | Class: | NEMA 4X | | | | | pression: | | | | | | |
| 핕 | Housing: | | Fiberglass-Reinfor | ced Polymide | | | _ | rument Rang | | | to | | | |
| ╘ | Mounting: | | Local | | | | _ | bration Ran | - | | to | | | |
| SIN | Signal / Pr | rotocol: | Profibus PA (Note: | 3) | | | Con | troller Displa | ay Range: | | to | | | |
| TRANSMITTER | Power Sup | oply: | 24 VDC | | | | Stati | ic Pressure | Range: | | to | | | |
| T. | Electrical C | Connection: | 4x1/2" NPT | | | | Allov | w. Oper Pre | ssure: | | to | | | |
| | Accuracy: | | 0.25% | | | | Allov | w. Oper Ter | nperature: | | to | | | |
| | Response | Time: | | | | | Max | imum Static | Pressure | | | | | |
| | Element M | laterial: | | | | | Man | ufacturer: | | Siemens | | | • | |
| | | | | | | | Mod | lel: | | Sitran F M Mag S | Series 6000 | | | |
| | | | • | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| OPTION | Integral Me | eter: | | | | | Hydi | rostatic Tes | ting: | | | | | |
| Ы | Scale: | | | | | | | inting Brack | | | | | | |
| 0 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | 1. Manufac | cturer and models | s were standardized | by the City via RFP 449 | -2014, no al | ternates or | substi | tutes will be | accepted. | | | | | |
| | | tion to be provide | | | | | | | | | | | | |
| ES | | | rd Profibus PA Mod | ule | | | | | | | | | | |
| NOTES | | • | | | | | | | | | | | | |
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| | | | | | | Flov | vm | eter l | nstru | ment | | | A SHEET | | REV. |
|----------------------------|--------------|--|--------------------|----------------------------|---------------|-------------|---------|----------------|-------------|----------------|--------------|---------|------------|-----------------|-------|
| | K | iS | | | | | | Magn | otic | | SH | HEET | 1 | OF | 1 |
| | 186 | | | | NO | DAT | - | Magn | | (ICION | | | | | |
| | GRC | UP | | | NO. | DAT | | | | /ISION | | BY | CHK'D | PROC. | APPR |
| | | | | | 0 | 2022 1 | 8 05 | I | ssued for | Construction | | DG | JP | | |
| | | | | | | | | | | | | | | | |
| | _ | | 04 040= | 045 | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| | | | | Carial Na | 1 | | | | 1 \A/: | -i Di | _ | 4.0 | 104 AIFC | F000 004 | |
| TA | G NO: | FIT- | F87031 | Serial No. | | | | | | ring Diagrams: | | | 101-AIFS- | | |
| | | | | Spec No: | | | | | Line / Ve | essel Number: | | 8 | 0-FC-PV0 | 4-0747 | _ |
| Ass | et No: | | | P&ID: | 1-0101- | PPID-F00 | 4-001 | | Line ID: | | Size: | 80 | mm Sch | edule: | |
| | | | | | | | | | Manufac | turer: | • | S | iemens | | |
| Des | cription: | MAGNETIC F | LOWMETER TRA | ANSMITTER WITH LO | CAL INDI | CATION | | | Model: | | Sit | rans F | F M Mag 6 | :000 | |
| Dur | hase Orde | L | | | | | Ven | dor | Wodol. | | | | | | |
| | | | | | | | | | | | | па | ns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| | Fluid State |): | Liquid | | | | | | | | | | | | |
| 'n | | | | | | | | | | | | | | | |
| ž | | . 0 (FL) | | N.C. 1 | | | | 1.0 " | ` | _ | | /F !! 0 | | | |
| $\stackrel{\square}{\sim}$ | | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | Maximum | | scale): | | nits: |
| CONDITIONS | Flow: | | | 3.0 | | | | 5.4 | | | | 7.0 | | ١ | _/s |
| Ä | Pressure: | | 1 | 60 | | | | 60 | | | | 60 | | р | sig |
| 8 | Temperatu | ıre: | | 0 | | | | 20 | | | | 30 | | | °C |
| S | | | | | | | | | | _ | | | | | |
| Š | D : D | | | 150 | | | \ / | | D. | | N 1/4 | | | | |
| $\ddot{\mathbb{S}}$ | Design Pre | | | 150 | | psig | | or Pressure | PV: | | N/A | | | | |
| PROCESS | Design Te | mperature: | | -10 to 50 | | °C | Visc | osity: | | | N/A | 4 | | | |
| 立 | Lower SG | .ower SG / Density: 1.39 digher SG / Density: 1.46 | | | | | Com | pressibility | (Z): | | N/A | A | | | |
| | Higher SG | 9 , | | | | | Spec | cial Conditio | on: | | | N/A | | | |
| | Pipe Mater | rial | | PVC | | l | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | nting Orient | tation: | | | | | | |
| | End Conne | ection: | | | | | Mou | nting Kit: | | | | | | | |
| | End Conne | ection Material: | | | | | Flan | ge / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | | ge Type: | | Note 2 | | | | | |
| Ħ | | | | | | | _ | | | | | | | | |
| ≝ | Lining Prof | | Note 2 | | | | _ | ge Material | | Note 2 | | | | | |
| | Electrode 7 | Type: | Note 2 | | | | Allov | v. Operating | g Velocity: | | to | | | | |
| | Electrode l | Material: | Note 2 | | | | Encl | osure Class | 3: | NEMA 4X | | | | | |
| | Grounding | Rings: | | | | | Elen | nent Model | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Ctoinless 9 | Stool Toru | FIT-F87031 | | | | Mot | and O Dina | Motorial | | | | | | |
| | Stainless S | | FII-F0/U31 | | | | | ted O-Ring | iviateriai. | | | | | | |
| | Application | n: | | | | | Fill F | | | | | | | | |
| | Type: | | <u> </u> | | | | Elev | ation: | | | | | | | |
| | Enclosure | Class: | NEMA 4X | | | | Supp | pression: | | | | | | | |
| K. | Housing: | | Fiberglass-Reinfor | rced Polymide | | | Instr | ument Rang | ge: | | to | | | | |
| E | Mounting: | | Local | | | | | oration Ran | | | to | _ | | -+ | |
| \equiv | | otocol: | | 3) | | | _ | | - | | | _ | | -+ | |
| TRANSMITTER | Signal / Pr | | Profibus PA (Note | (J) | | | | troller Displa | | | to | _ | | $-\!\!+\!\!\!-$ | |
| A | Power Sup | | 24 VDC | | | | | ic Pressure | | | to | | | | |
| 꼰 | Electrical C | Connection: | 4x1/2" NPT | · | _ | | Allov | v. Oper Pre | ssure: | | to | | · <u>-</u> | | |
| ' | Accuracy: | | 0.25% | | | | Allov | v. Oper Ter | mperature: | | to | | | | |
| | Response | Time: | | | | | Maxi | imum Static | Pressure | | | - | | - | |
| | Element M | | | | | | | ufacturer: | | Siemens | | | | | |
| | Liementiv | iateriai. | | | | | + | | | | 0 : 000 | | | | _ |
| | | | | | | | Mod | el: | | Sitran F M Mag | Series 600 | 10 | | | |
| | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | |
| OPTION | Integral Me | eter: | | | | | Hydr | rostatic Tes | ting: | | | | | | |
| Н | Scale: | | | | | | Mou | nting Brack | ets: | | | | | | |
| Ō | | | | | | | | J | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | d by the City via RFP 449- | -2014, no alt | ternates or | substit | tutes will be | accepted. | | | | | | |
| | 2. Informat | tion to be provide | d by Vendor. | | | | | | | | | | | | |
| NOTES | 3. Complet | te with option Ca | rd Profibus PA Mod | ule | | | | | | | | | | | |
| DT | | | | | | | | | | | | | | | |
| ž | - | | | | | | | | | | | | | | |
| | — | | | | | | | | | | | | | | |
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| П | | 10 | | | | Flov | ٧m | eter I | nstrui | ment | | | A SHEET | | REV. |
|-------------|-----------------------|---------------------|----------------------|-------------------------|-----------------|---------------|--------------|----------------|---------------|-------------------|--------|--------------|----------|----------|--------|
| | ĸa | is | | | | | | Magne | etic | | | SHEET | 1 | OF | 1 |
| - | GRO | | | | NO. | DAT | Έ | | | ISION | | BY | CHK'D | PROC. | APPR. |
| | GRC | JOP | | | 0 | 2022-0 | 7-13 | | Issued for | Addendum | | NP | AF | gas | gas |
| | | | | | | | | | | | | | | | |
| Duc | oject: | | 21-0107 | 015 | | | | | | | | | | | |
| ΡÏ | oject. | | 21-0107 | -015 | | | | | | | | | | | |
| ТΛ | G NO: | EIT. | G07513 | Serial No. | | | | | Loop Wir | ing Diagrams: | | 1-01 | 01-AILD- | G211-001 | ı |
| Ĭ | G NO. | | G07513 | Spec No: | | | | | Line / Ve | ssel Number: | | 15 | FC-PV0 | 1-00753 | |
| Ass | et No: | | | P&ID: | 1-0101- | -PPID-G01 | 2-001 | | Line ID: | | Size | e: 15r | nm Sch | edule: | |
| Das | cription: | MAGNETIC E | I OWMETER TRA | ANSMITTER WITH L | OCAL INDIC | CATION | | | Manufact | | | | emens | | |
| Des | cription. | WAGNETIOT | LOWINE TER TITA | WOWITTER WITTE | LOOAL INDIC | OATION | | | Model: | S | itrans | F M Mag | 6000 & F | M Mag 1 | 100 |
| Purc | chase Orde | er: | | | | | Ven | dor: | | | | Trai | ns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| m | Fluid State |): | Liquid | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | |
| \cong | | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatino | g): | | Max | imum (Full S | cale): | | Jnits: |
| | Flow: | | | - | | | | 200 | | | | 271 | | | L/hr |
| CONDITIONS | Pressure: | | - | - | | | | 80 | | | | 80 | | | psig |
| C | Temperatu | ire: | | 15 | | | | 20 | | | | 30 | | | °C |
| SS | Daving Du | | | | | | V | D | D | | | NI/A | | | |
| S | Design Pre | | | 80 | | psig | | or Pressure | PV: | | | N/A | | | -D |
| PROCESS | | mperature: | | 15 to 30 N/A | | °C | Visco | pressibility (| (7). | | | N/A N/A | | | сР |
| d | Lower SG Higher SG | | | 1.53 | | | _ | cial Conditio | . , | | | N/A N/A | | | _ |
| | Pipe Mater | | PVC | | | Spec | iai Conditio | 111. | | | IN/A | | | - | |
| | i ipe iviatei | nai | | 1 10 | | | | | | | | | | | |
| | | | | | | | _ | | | | _ | | | | |
| | Connection | n Size: | | | | | Mour | nting Orienta | ation: | | | | | | |
| | End Conne | | | | | | _ | nting Kit: | | | | | | | _ |
| ~- | | ection Material: | | | | | _ | ge / Wafer F | Rating: | Note 2 | | | | | |
| METER | Lining Mate | erial: | Note 2 | | | | | ge Type: | | Note 2 | | | | | |
| Ш | Lining Prot | tector: | Note 2 | | | | Flang | ge Material: | | Note 2 | | | | | |
| Σ | Electrode | Type: | Note 2 | | | | Allow | v. Operating | Velocity: | | | to | | | |
| | Electrode N | Material: | Note 2 | | | | Enclo | osure Class | : | NEMA 4X | | | | | |
| | Grounding | Rings: | | | | | Elem | ent Model N | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | | FIT-Y07913 | | | | _ | ed O-Ring I | Material: | | | | | | |
| | Application | 1: | | | | | Fill F | luid: | | | | | | | |
| | Type: | | | | | | Eleva | | | | | | | | |
| Œ | Enclosure | Class: | NEMA 4X | | | | | oression: | | | | | | | |
| H. | Housing: | | Fiberglass-Reinford | ced Polymide | | | _ | ument Rang | | | | to | | | |
| ₩ | Mounting: | | Local | | | | _ | oration Rang | | | | to | | | |
| TRANSMITTER | Signal / Pro | | 4-20 mA / HART | | | | _ | roller Displa | | | | to | | - | |
| A | Power Sup | | 24 VDC 4x1/2" NPT | | | | _ | C Pressure | | | | to | | | |
| ᄩ | | Connection: | 0.25% | | | | _ | v. Oper Pres | | | | to | | | _ |
| | Accuracy: Response | Timo: | 0.25% | | | | | mum Static | • | | | to | | | _ |
| | Element M | | | | | | _ | ufacturer: | riessule | Siemens | | | | | - |
| | Liement w | iateriai. | | | | | Mode | | | Sitran F M Mag S | Sorios | 6000 | | | - |
| | | | - | | | | Wood | 51. | | Citrari i wiwag (| ocrico | 0000 | | | |
| | | | | | | | | | | | | | | | |
| 0 | Integral Me | eter: | | | | | Hydr | ostatic Test | ing: | | | | | | |
| OPTION | Scale: | | | | | | _ | nting Bracke | | | | | | | |
| Ö | | | · | | | | | J 3374 | | | | | | | الأدي |
| | | | | | | | | | | | | | | | |
| | 1. Manufac | cturer and models | were standardized l | by the City via RFP 449 | 9-2014, no alte | ernates or su | bstitute | es will be ac | cepted. | | | | | | |
| (0 | 2. Informat | tion to be provided | d by Vendor. | - | | | | | | | | | | | |
| 岜 | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | |
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| | | | | | | Flov | vm | eter I | netru | ment | | DAT | ΓΑ SHEET | NO. | REV. |
|-------------|-------------|--------------------------|---------------------|--|-------------|--|---------------|----------------|-----------|----------------|------------|---------|-----------|----------|-------|
| | V | is | | | | 1 101 | | | | ····Ciit | | DS | T-FIT-W08 | J801 | 0 |
| Ш | Rα | | | | | | | Magn | etic | | SI | HEET | 1 | OF | 1 |
| | GRO | | | | NO. | DAT | Έ | | REV | /ISION | | BY | CHK'D | PROC. | APPR |
| | ORC | 701 | | | 0 | 2022 1 | 8 05 | | ssued for | Construction | | DG | JP | | |
| | | | | | | | | | | | | | | | 1 |
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| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| | | | | Carial Na | | | | | 1 \A/: | ring Diagrams: | | 4.0 | 101-AIFS- | F000 004 | |
| TA | G NO: | FIT- | W08801 | Serial No. | | | | | | | | | | | |
| | | | | Spec No: | | | | | | essel Number: | | _ |)-SHD-PV | | |
| Ass | et No: | | | P&ID: | 1-0101- | PPID-F00 | 5-001 | | Line ID: | | Size: | | | edule: | |
| Des | cription: | MAGNETIC F | OWMETER TRA | ANSMITTER WITH LO | CAL INDI | CATION | | | Manufac | turer: | | S | iemens | | |
| 200 | onpuon. | WW.CHETTOTT | LOWINETER | , , , , , , , , , , , , , , | ONE III | 0,111011 | | | Model: | | Sit | trans I | F M Mag 6 | 000 | |
| Purc | hase Orde | er: | | | | | Ven | dor: | | | | Tra | ıns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Sodium Hydroxide | <u>, </u> | | | | | | | | | | | |
| | Fluid State | · · | Liquid | | | | | | | | | | | | |
| ر٥ | Tiuld State | •• | Liquid | | | | | | | | | | | | |
| ž | | · 0 (FL) | | A 41 - 1 | | | | 1.00 | ` | | | /E !! C | | | ., |
| 은 | | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatin | g): | | Maximum | | scale): | | nits: |
| | Flow: | | | 3.0 | | | | 5.4 | | | | 7.0 | | | L/s |
| CONDITIONS | Pressure: | | | 60 | | | | 60 | | | | 60 | | p | sig |
| S | Temperatu | ire: | | 15 | | | | 20 | | | | 30 | | | °C |
| PROCESS (| | | | | | | | | | <u> </u> | | | | | |
| E S | Design Pre | essure: | | 150 | | psig | Vapo | or Pressure | Pv: | | N/A | A | | | |
| oc | | mperature: | | 10 to 50 | | °C | Visc | osity: | | | 36 | 3 | | - | cР |
| ЪК(| Lower SG | | | N/A | | | | pressibility | (7): | | N// | | | | - |
| _ | | igher SG / Density: 1.53 | | | | | _ | cial Condition | | | | N/A | | | _ |
| | | | | | | Spec | ciai Coriulli | JII. | | | IN/A | | | _ | |
| | Pipe Mater | ııaı | | PVC | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mou | nting Orien | tation: | | | | | | |
| | End Conne | ection: | | | | | Mou | nting Kit: | | | | | | | |
| ~ | End Conne | ection Material: | | | | | Flan | ge / Wafer | Rating: | Note 2 | | | | | |
| METER | Lining Mat | erial: | Note 2 | | | | Flan | ge Type: | | Note 2 | | | | | |
| ᇤ | Lining Prof | tector: | Note 2 | | | | Flan | ge Material | : | Note 2 | | | | | |
| M | Electrode ' | | Note 2 | | | | _ | v. Operating | | | to | | | | |
| | Electrode | •• | Note 2 | | | | | osure Class | | NEMA 4X | 10 | | | | _ |
| | Grounding | | 11010 2 | | | | + | nent Model | | Note 2 | | | | | |
| | Crounding | rkings. | | | | | Lien | ient woder | ivamber. | Note 2 | | | | | |
| _ | | | | | | | _ | | | | _ | _ | | | _ |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-W08801 | | | | | ted O-Ring | Material: | | | | | | |
| | Application | ո։ | | | | | Fill F | luid: | | | | | | | |
| | Type: | | | | | | Elev | ation: | | | | | | | |
| | Enclosure | Class: | NEMA 4X | | | | Supp | pression: | | | | | | | |
| TRANSMITTER | Housing: | | Fiberglass-Reinfor | rced Polymide | | | Instr | ument Ran | ge: | | to | | | | |
| E | Mounting: | | Local | | | | Calib | oration Ran | ge: | | to | | | | |
| Ξ | Signal / Pr | otocol: | Profibus PA (Note: | 3) | | | _ | troller Displa | - | | to | _ | | | |
| SS | Power Sup | | 24 VDC | • | | | | ic Pressure | | | to | _ | | | |
| ξ | | Connection: | 4x1/2" NPT | | | | | v. Oper Pre | | | | _ | | -+ | + |
| F | | Jointe olion. | | | | | _ | | | - | to | _ | | | |
| | Accuracy: | | 0.25% | | | | | v. Oper Ter | • | | to | 1 | | | |
| | Response | | | | | | | imum Statio | Pressure | | | | | | |
| | Element M | laterial: | | | | | Man | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mod | el: | | Sitran F M Mag | Series 600 | 00 | | | |
| | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | |
| Ó | Integral Me | eter: | | | | | Hydr | rostatic Tes | ting: | | | | | | |
| OPTION | Scale: | | | | | | | nting Brack | | | | | | | |
| O | | | | | | | | | | | | | | | |
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| | 1. Manufa | cturer and models | s were standardized | d by the City via RFP 449- | 2014 no ali | ternates or | suhetit | tutes will be | accented | | | | | | |
| | | tion to be provide | | | , .io all | | | | opiou. | | | | | | |
| S | | | rd Profibus PA Mod | ule | | | | | | | | | | | [|
| NOTES | o. Compie | to with option Cal | ia Fiolipus PA MOO | uic | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | |
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| | | | | | | Flov | νm | eter li | nstrui | ment | | ATA SHEET | | REV. |
|---------------|----------------------------|--------------------|---------------------|-------------------------|---------------|---------------|----------|--------------------------|---------------|------------------|-------------|--------------------------|----------|-------|
| | KŒ | is | | | | | | Magne | etic | | SHEE | | OF | 1 |
| | | | | | NO. | DAT | Έ | ag.ii | | ISION | BY | CHK'D | PROC. | APPR. |
| | GRC | , o P | | | 0 | 2022-0 | 7-13 | ı | ssued for | Addendum | NP | AF | gas | gas |
| | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | |
| | , | | 21 0107 | | | | | | I \\(\alpha\) | D: | | 0101 All D | V040 004 | |
| TA | G NO: | FIT- | Y07913 | Serial No. | | | | | <u> </u> | ing Diagrams: | 1 | -0101-AILD- 15-FC-PV0 | | |
| Δος | et No: | | | Spec No: P&ID: | 1-0101 | 1-PPID-Y00 | 1-001 | | Line ID: | ssel Number: | Size: | | edule: | |
| | | | | | | | 1 001 | | Manufact | turer: | OIZO. | Siemens | caalo. | |
| Des | cription: | MAGNETIC FI | OWMETER TRA | NSMITTER WITH L | OCAL IND | ICATION | | | Model: | | trans FMM | ag 6000 & F | M Mag 11 | 00 |
| Purc | hase Orde | er: | | | | | Vend | dor: | • | | 7 | rans-West | | |
| Req | uisition Nu | mber: | | | | | Job | Number: | | | | | | |
| | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | |
| <u>S</u> | Fluid State | | Liquid | | | | | | | | | | | |
| CONDITIONS | Process Da | ata Case (Flow:) | | Minimum: | | | Norma | I (Operating | a): | | Maximum (Fu | l Scale): | Uı | nits: |
| E | Flow: | . , | | - | | | | 30 | , | | 30 | , | | /hr |
| Ν̈́ | Pressure: | | | - | | | | 80 | | | 80 | | р | sig |
| \mathcal{S} | Temperatu | re: | | 15 | | | | 20 | | | 30 | | | °C |
| PROCESS | | | T. | | | | | | | | | | | |
| CE | Design Pre | | | 80 | | psig | | r Pressure | Pv: | | N/A | | | _ |
| 30 | Design Ter Lower SG | | | 15 to 30 N/A | | °C | Visco | osity: pressibility (| 7\. | | N/A N/A | | (| cP |
| ᆸ | Higher SG | | | 1.53 | | | | ial Conditio | | | N/A | 'A | | |
| | Pipe Mater | | | PVC | | | Орос | iai coriaitio | | | | ,, | | |
| | | | | | | | | | | <u>'</u> | | | | |
| | | | | | | | | | | | | | | |
| | Connection | | | | | | Mour | nting Orienta | ation: | | | | | |
| | End Conne | | | | | | _ | nting Kit: | | | | | | |
| H. | | ection Material: | Nete O | | | | | je / Wafer F | Rating: | Note 2 | | | | |
| METER | Lining Mate Lining Prot | | Note 2 Note 2 | | | | _ | je Type: je Material: | | Note 2 Note 2 | | | | |
| Σ | Electrode 7 | | Note 2 | | | | _ | . Operating | Velocity: | TTOTO Z | to | | | |
| | Electrode N | | Note 2 | | | | | sure Class | | NEMA 4X | | | | |
| | Grounding | Rings: | | | | | Elem | ent Model N | Number: | Note 2 | | | | |
| | | | | | | | | | | | | | | |
| | 0 | | EIT \(0.70 \tau 0. | | | | | 100 | | | | | | |
| | Stainless S Application | | FIT-Y07913 | | | | Fill FI | ed O-Ring N | viateriai: | | | | | |
| | Type: | · | | | | | Eleva | | | | | | | |
| ~- | Enclosure | Class: | NEMA 4X | | | | | ression: | | | | | | |
| TRANSMITTER | Housing: | | Fiberglass-Reinford | ced Polymide | | | | ıment Rang | e: | | to | | | |
| E | Mounting: | | Local | | | | Calib | ration Rang | je: | | to | | | |
| SM | Signal / Pro | otocol: | 4-20 mA / HART | | | | _ | roller Displa | | | to | | | |
| AN | Power Sup | | 24 VDC | | | | _ | Pressure I | | | to | | | |
| TR | | connection: | 4x1/2" NPT | | | | _ | Oper Pres | | | to | | | |
| | Accuracy: Response | Time: | 0.25% | | | | _ | num Static | | | to | | | |
| | Element M | | | | | | _ | ıfacturer: | | Siemens | | | | |
| | | | | | | | Mode | | | Sitran F M Mag S | eries 6000 | | | |
| | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | |
| \cong | Integral Me | ter: | | | | | _ | ostatic Testi | | | | | | |
| OPTION | Scale: | | | | | | Mour | nting Bracke | ets: | | | | | |
| | | | | | | | | | | | | | | |
| | 1. Manufac | turer and models | were standardized l | by the City via RFP 449 | -2014, no alt | ernates or su | bstitute | s will be ac | cepted. | | | | | |
| (0 | 2. Informat | ion to be provided | by Vendor. | | | | | | | | | | | |
| 置 | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | [|
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| | | is | | | | Flov | ۷M | | nstrun | nent | | DS | A SHEET | 923 | REV. |
|---------------|--------------|--------------------|---------------------|-------------------------|------------------|--------------|-----------|----------------|-------------|------------------|----------|-------------|----------|----------|-----------|
| | 77 | 12 | | | | | | Magne | | | 5 | SHEET | 1 | OF | 1 |
| | GRC | UP | | | NO. | DAT | Έ | | REVI | SION | | BY | CHK'D | PROC. | APPR. |
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| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | |
| | ,,,,,, | | 21 0107 | | | | | | | 5. | | | | (| |
| TA | G NO: | FIT- | Y07923 | Serial No. | | | | | - · | ng Diagrams: | | | 01-AILD- | | |
| | | | | Spec No: | 1 0101 | DDID Year | | | | sel Number: | 0: | | 5-FC-PV0 | | |
| Asse | et No: | | | P&ID: | 1-0101- | PPID-Y001 | 1-001 | | Line ID: | | Size: | | nm Sche | edule: | |
| Des | cription: | MAGNETIC FI | LOWMETER TRA | ANSMITTER WITH L | OCAL INDIC | CATION | | | Manufactu | | | | emens | M M 44 | 00 |
| ρ | | <u> </u> | 1 | | | | \/ - ·- | -l | Model: | Si | trans F | | 6000 & F | M Mag 11 | 00 |
| _ | hase Orde | | | | | | Vend | | | | | Tran | ns-West | | |
| Req | uisition Nu | imber: | | | | | Job | Number: | | | | | | | |
| | Electric . | | E Oblacia | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| S | Fluid State | : | Liquid | | | | | | | | | | | | |
| $\frac{8}{2}$ | Dunnan D | ata Case (Flow:) | | Minimum | | | Marrana | l (On a vation | w\. | | Maurine | um (Full Co | -\- | 11. | -11-1 |
| Ĕ | | ala Case (Flow:) | | Minimum: | | | ivorma | I (Operating | 3): | | Maximu | ım (Full So | cale): | | nits: |
| ᆿ | Flow: | | | - | | | | 30 | | | | 30 | | | /hr |
| CONDITIONS | Pressure: | iro: | | - 15 | | | | 80 | | | | 80 | | | sig °C |
| | Temperatu | ile. | | 15 | | | | 20 | | | | 30 | | ` | |
| PROCESS | Design Pre | occuro. | | 80 | | neia | \/222 | r Pressure | Pv. | | | N/A | | | |
| S | Design Ter | | | 15 to 30 | | psig °C | Visco | | rv. | | | N/A | | | cР |
| 2 | Lower SG | | | N/A | | - | _ | pressibility (| 7\. | | | V/A | | | JI. |
| ₫ | Higher SG | | | 1.53 | | | | ial Condition | | | - 11 | N/A | | | _ |
| | Pipe Mater | | | PVC | | | Spec | iai Coriditioi | 11. | | | IN/A | | | |
| | r ipe mater | iai | | 1 10 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Connection | n Size: | | | | | Mour | nting Orienta | ation: | | | | | | |
| | End Conne | | | | | | | nting Kit: | | | | | | | |
| ~- | | ection Material: | | | | | | je / Wafer F | Rating: | Note 2 | | | | | |
| EB | Lining Mate | erial: | Note 2 | | | | | je Type: | | Note 2 | | | | | |
| MET | Lining Prot | | Note 2 | | | | _ | ge Material: | | Note 2 | | | | | |
| Σ | Electrode | Гуре: | Note 2 | | | | Allow | . Operating | Velocity: | | t | to | | | |
| | Electrode I | Material: | Note 2 | | | | Enclo | sure Class | : | NEMA 4X | | | | 1 | |
| | Grounding | Rings: | | | | | Elem | ent Model N | Number: | Note 2 | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-Y07923 | | | | Wette | ed O-Ring N | Material: | | | | | | |
| | Application | 1: | | | | | Fill Fl | uid: | | | | | | | |
| | Type: | | | | | | Eleva | ation: | | | | | | | |
| ш | Enclosure | Class: | NEMA 4X | | | | | ression: | | | | | | | |
| TRANSMITTER | Housing: | | Fiberglass-Reinford | ced Polymide | | | _ | ıment Rang | | | | to | | | |
| ΤI | Mounting: | | Local | | | | _ | ration Rang | | | | to | | | |
| S | Signal / Pro | | 4-20 mA / HART | | | | _ | roller Displa | | | | to | | | |
| A | Power Sup | | 24 VDC | | | | | Pressure F | | | | to | | | |
| H. | | Connection: | 4x1/2" NPT | | | | | . Oper Pres | | | | to | | | |
| | Accuracy: | _ | 0.25% | | | | | . Oper Tem | | | t | to | | | [] |
| | Response | | | | | | _ | num Static | Pressure | . | | | | | [|
| | Element M | aterial: | | | | | | ıfacturer: | | Siemens | | | | | |
| | | | | | | | Mode | el: | | Sitran F M Mag S | eries 60 | 000 | | | |
| | | | | | | | | | | | | | | | |
| N | Integral M | otor: | | | | | - المراجع | notatio Testi | ing | | | | | | |
| OPTION | Integral Me | oto: . | | | | | _ | ostatic Testi | | | | | | | |
| ОР | Scale: | | | | | | iviour | nting Bracke | 115. | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1. Manufac | cturer and models | were standardized I | by the City via RFP 449 |)-2014. no alter | nates or sul | bstitute | s will be acc | cepted. | | | | | | |
| | | ion to be provided | | -,, ++0 | 2, 110 aito | | | | | | | | | | |
| ES | | | , | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | |
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| П | | 10 | | | | Flov | wm | eter I | nstru | ment | | | A SHEET | | REV. |
|-------------|--------------|-----------------------------|---------------------|---------------------------|-------------------|---------------|---------------|-------------------------|------------|----------------|----------|-------------|----------|-------------|--------------|
| | ĸa | is | | | | | | Magne | etic | | | SHEET | 1 | OF | 1 |
| _ | GRO | | | | NO. | DAT | Ε | | | ISION | | BY | CHK'D | PROC. | APPR. |
| | GRC | JUP | | | 0 | 2022-0 | 7-13 | | Issued for | Addendum | | NP | AF | ya3 | gas |
| | | | | | | | | | | | | | | | |
| Duc | sio et : | | 21 0107 | 015 | | | | | | | | | | | |
| PIC | oject: | | 21-0107 | -015 | | | | | | | | | | | |
| TΛ | G NO: | CIT | Y07933 | Serial No. | | | | | Loop Wir | ing Diagrams: | | 1-01 | 01-AILD- | Y214-001 | |
| י י | a 110. | | 107933 | Spec No: | | | | | Line / Ve | ssel Number: | | 15 | 5-FC-PV0 | 4-0779 | |
| Ass | et No: | | | P&ID: | 1-0101- | -PPID-Y00 | 1-001 | | Line ID: | | Size: | 15r | nm Sch | edule: | |
| Des | cription: | MAGNETIC F | I OWMETER TRA | ANSMITTER WITH L | OCAL INDIC | CATION | | | Manufac | | | | emens | | |
| | | | - COMMETER TO | | LOOKE II IDI | 0/11/011 | | | Model: | S | itrans | | | M Mag 11 | 100 |
| Purc | chase Orde | er: | | | | | Vend | dor: | | | | Trai | ns-West | | |
| Req | uisition Nu | ımber: | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | <u> </u> |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| co | Fluid State |): | Liquid | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | |
| \cong | | ata Case (Flow:) | | Minimum: | | | Norma | al (Operatino | g): | | Maxim | num (Full S | cale): | | Inits: |
| .IO | Flow: | | | | | | | 30 | | | | 30 | | | _/hr |
| CONDITIONS | Pressure: | | | - | | | | 80 | | | | 80 | | | osig |
| Ö | Temperatu | ire: | | 15 | | | | 20 | | | | 30 | | | °C |
| SS | | | | | | | 4 | | | | | | | | |
| PROCESS | Design Pre | | | 80 | | psig | | or Pressure | Pv: | | | N/A | | | |
| õ | | mperature: | | 15 to 30 | | °C | Visco | | (T) | | | N/A | | | сР |
| ᆸ | Lower SG | | | N/A | | | | pressibility (| | | | N/A | | | _ |
| | Higher SG | | 1.53 | | | Spec | cial Conditio | in: | | | N/A | | | | |
| | Pipe Mater | riai | | PVC | | | | | | | | | | | |
| | | | | | | | _ | | | | | | | | |
| | Connection | n Cizo: | 1 | | | | Mou | oting Oriont | otion | | | | | | |
| | End Conne | | | | | | _ | nting Orientanting Kit: | alion. | | | | | | |
| | | ection. ection Material: | | | | | _ | ge / Wafer F | Pating: | Note 2 | | | | | |
| METER | Lining Mate | | Note 2 | | | | | ge Type: | nating. | Note 2 | | | | | |
| Ε | Lining Prot | | Note 2 | | | | | ge Material: | | Note 2 | | | | | |
| ≥ | Electrode | | Note 2 | | | | | v. Operating | | 11010 2 | | to | | | |
| | Electrode N | | Note 2 | | | | _ | osure Class | | NEMA 4X | | 10 | | | |
| | Grounding | | | | | | | ent Model N | | Note 2 | | | | | |
| | | | <u>'</u> | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | FIT-Y07933 | | | | Wett | ed O-Ring N | Material: | | | | | | |
| | Application | 1: | | | | | Fill Fl | luid: | | | | | | | |
| | Type: | | | | | | Eleva | ation: | | | | | | | |
| ~ | Enclosure | Class: | NEMA 4X | | | | Supp | oression: | | | | | | | |
| TRANSMITTER | Housing: | | Fiberglass-Reinford | ced Polymide | | | Instru | ument Rang | ge: | | | to | | | |
| E | Mounting: | | Local | | | | Calib | ration Ranç | ge: | | | to | | | |
| SM | Signal / Pro | otocol: | 4-20 mA / HART | | | | Cont | roller Displa | ay Range: | | | to | | | |
| Ź | Power Sup | oply: | 24 VDC | | | | | c Pressure I | | | | to | | | |
| E. | Electrical C | Connection: | 4x1/2" NPT | | | | | v. Oper Pres | | | | to | | | |
| _ | Accuracy: | | 0.25% | | | | | v. Oper Tem | | | | to | | | |
| | Response | Time: | | | | | Maxi | mum Static | Pressure | | | | | | |
| | Element M | laterial: | | | | | Manı | ufacturer: | | Siemens | | | | | |
| | | | | | | | Mode | el: | | Sitran F M Mag | Series 6 | 000 | | | |
| | | | | | | | | | | | | | | | |
| N | later 111 | | | | | | 12. | | | | | | | | |
| \exists | Integral Me | eter: | - | | | | _ | ostatic Test | | | | | | | |
| OPTION | Scale: | | | | | | Mour | nting Bracke | ets: | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1 Manufac | cturer and models | were standardized | by the City via RFP 449 | 9-2014 no alto | rnates or cui | hetitute | s will be so | cented | | | | | | |
| | | tion to be provided | | 5, 510 Oily VIQ 111 1 443 | , _01-+, 110 dite | | Soutate | , | ооргои. | | | | | | |
| SI | omat | | ., | | | | | | | | | | | | — [] |
| NOTES | | | | | | | | | | | | | | | — |
| ž | | | | | | | | | | | | | | | |
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| | | | | | | | l ev | el Fl | ement | | | | A SHEET | | REV. |
|-------------|------------------------------------|-------------------------|--------------------------|------------|---------|---------------|------------------|----------------|-------------|----------------------------|----------|-----------------|---------------|-----------|-------|
| | 100 | ı | | | | | | | | | | | T-LIT-F07 | | 0 |
| | (GS | | | | | | _ | onic Le | evel Mete | | | SHEET | 1 | OF | 1 |
| _ | GROUP | | | | 10. | DATE | | | REVIS | | | BY | CHK'D | PROC. | APPR. |
| | OROUF | | | | 0 | 2022 18 | 3 05 | ls | ssued for C | onstruction | | DG | JP | | |
| | | | | _ | | | | | | | | | | | |
| Pro | ject: | 21-0107 | 7-015 | | | | | | | | | | | | |
| | | | Carial Na | | | | | | Loop Wirir | a Diagrama | | 1.0 | 101-AIFS- | F202 001 | |
| TA | G NO: | LIT-F07301 | Serial No Spec No: | | | | | | | ng Diagrams sel Number: | | 1-0 | TK-F07 | | |
| Δος | et No: | | P&ID: | 1-0 | 101-F | PPID-F004- | -001 | | Line ID: | sei Nuilibei. | Siz | ۵. | | edule: | |
| 7,330 | 21140. | | i dib. | 10 | 1011 | 1101004 | 001 | | Manufactu | ırer | Oiz | | iemens | sudio. | |
| Des | cription: | ULT | TRASONIC LEVEL T | RANSMIT | ITER | | | | Model: | | | | n Probe LI | 1 | |
| Puro | hase Order: | | | | | | Vend | or: | | | | | ns-West | | |
| _ | uisition Number: | | | | | | | lumber: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | Fe | rric Chlori | de | | | | | | |
| | Fluid State: | | | | | | | Liquid | | | | | | - | |
| | | | | | | | | | | | | | | | |
| S | | Min: | | | Norn | nal (Operatin | ng): | | | Max (Fu | II Scale | e): | | Ui | nits |
| O | Flow: | | | | | | | | | | | | | | |
| Ē | Pressure: | | 60 | | | | | 60 | | | | 60 | | р | sig |
| CONDITIONS | Temperature | | 0 | | | | | 20 | | | | 30 | | c | С |
| 00 | | | | | | | | | | • | | | | | |
| | Design Pressure: | | 150 | | | psig | Tank 1 | Top Style: | | | | Flat | | | |
| ЭÜ | Design Temperature | : | -10 to 50 | | | °C | Tank E | 3ottom Sty | le: | | | Flat | | | |
| PROCESS | Vessel Height: | 10.6 meters | | | | | Width | / Diameter | T 4 | 4.3 meters | | | | | |
| 풉 | Fluid Dielectric Cons | stant: N/A | | | | | Higher | Viscosity: | | N/A | | | | | |
| | Level Empty: | 0 meters | | | | | Ambie | nt Temper | ature: | | | 20 | | ۰ | С |
| | Level Full: | 10.6 meters | | | | | Area C | Classification | on: | Non Hazardo | ıs, Cor | rosive | | | |
| | Special Condition: | N/A | | | | | | | | | | | | | _ |
| | | | | | | | | | | | | | | | |
| | T T | | 1.00 | | | | D. J. J | T | | | | | | | _ |
| | Transducer Type: | | Ultrasonic | | | | | Temperati | ure: | | | | | | - |
| | Measurement Type: Body Material | | Note 2 | | | | | Pressure: | | | | | | | |
| ER | Flange Material: | | Note 2 | | | | Signal Freque | | | | | | | | |
| RANSDUCER | Element Material: | | Note 2 | | | | _ | Length: | | | | | | | |
| SD | Vessel I.D. | | 14010 2 | | | | | it Connect | tion: | | | | | | |
| A | Measurement Range | 9: | 0 - 10.5 mete | rs | | | | est Categ | | | | | | | |
| TR | Mounting Position: | | Vertical | | | | | nt Temper | | | | | | - | |
| | Processs Connection | n: | 50MM (2") NF | т | | | | acturer: | | | | Siemer | ns | | |
| | Connection Material: | : | Fibre Glass | | | | Model | : | | | | Sitrans Pro | be LU | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Function: | | Transmitter | | | | Appro | val(s): | | | | CSA | | | |
| <u>~</u> | Mounting: | | Local (Note 2 | ?) | | | Mount | ing Kit: | | Flan | ge adap | oter for mating | g 80mm AN | Si flange | |
| TRANSMITTER | Enclosure Class: | | NEMA 4X | | | | Cable | Entries: | | | | 2 x 1/2" ľ | NPT | | |
| | Display: | | LCD Display | , | | | Power | Wiring: | | | | Profibus | PA | | |
| S | Case Material: | | To be filled-out by | Vendor | | | Volum | e Calculati | ion: | | | Yes | | | |
| ΑA | Output: ProfibusPA | | | | | | SS Ta | g: | | | | | | | |
| F | Communication Protocol: ProfibusPA | | | | | | Accura | acy: | | | | 0.15% | ó | | |
| | Range: | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | models were standardize | ed by the City via RFP 4 | 49-2014, n | o altei | rnates or sub | bstitute | s will be a | ccepted. | | | | | | |
| S | 2. Information to be p | provided by Vendor. | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | |
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| | | | | | | | L | _evel El | emen | t | | | ΓΑ SHEET | | REV. |
|------------------------|--|--|---------------------|---|-----------------------------|----------|---------------|---|------------------|--------------|-----------|---|---------------------|-----------|------|
| | 7 | | | | | | | | | | | | T-LIT-F07 | | 0 |
| | (G | 3 | | | | 10 | | trasonic L | | | | SHEET | 1 | OF | 1 |
| _ | GROUP | | | | | IO. | DATE | | | ISION | | BY | CHK'D | PROC. | APPR |
| | OKOOI | | | | | 0 | 2022 18 | 05 I | ssued for | Constructi | on | DG | JP | | |
| | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107- | 015 | | | | | | | | | | | |
| | | | | Serial No | | | | | Loop Wii | ring Diagra | ame: | 1.0 | 101-AIFS- | E202 001 | |
| TAC | 3 NO: | LIT- | F07401 | Spec No: | | | | | | ssel Numl | | 1-0 | TK-F07 | | |
| Asse | et No: | | | P&ID: | 1-0 | 101-PI | PID-F004- | 001 | Line ID: | 33Ci IVaiiii | | Size: | | edule: | |
| 71000 | 7.110. | | | i aib. | - 10 | 10111 | 1 10 1 00 1 | | Manufact | turer: | | | iemens | oddio. | |
| Desc | cription: | | ULTR | ASONIC LEVEL | TRANSMIT | TTER | | | Model: | | | | n Probe Ll | J | |
| Purc | hase Order: | | | | | | , | Vendor: | | | | | ins-West | | |
| | uisition Numl | | | | | | | Job Number: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric Chlor | ide | | | | | | |
| | Fluid State: | | | | | | | Liquid | | | | | | | |
| | | | ' | | | | | | | | | | | | |
| S | | | Min: | | | Norma | al (Operating | g): | | Max | (Full Sca | ale): | | Ui | nits |
| ON | Flow: | | | | | | | | | | | | | | |
| CONDITIONS | Pressure: | | | 60 | | 1 | | 60 | | | | 60 | | р | sig |
| Ŋ | Temperature | | | 0 | | | | 20 | | | | 30 | | c | C |
| 00 | | | | | | | | | | | | | | | |
| | Design Pressure: 150 Design Temperature: -10 to 50 | | | | | | psig | Tank Top Style: | | | | Flat | | | |
| PROCESS | | | | | | | °C - | Tank Bottom Sty | yle: | | | Flat | | | |
| SOC | Vessel Height: 10.6 meters | | | | | • | 1 | Width / Diamete | r: | 4.3 meters | 3 | | | • | |
| Н | Vessel Height: 10.6 meters Fluid Dielectric Constant: N/A | | | | | | ı | Higher Viscosity | <i>r</i> : | N/A | | | | | |
| | Level Empty: | | 0 meters | | | | , | Ambient Tempe | rature: | | | 20 | | c | C |
| | Level Full: | | 10.6 meters | | | | , | Area Classificat | ion: | Non Haza | rdous, Co | orrosive | | | |
| | Special Condi | ition: | N/A | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | |
| | Transducer Ty | | | Ultrasoni | | | | Rated Temperat | | | | | | | |
| | Measurement | t Type: | | | | | | Rated Pressure | : | | | | | | |
| | | | | | | | | | | | | | | | |
| ER | Body Material | | | Note 2 | | | | Signal Type: | | | | | | | |
| JCER | Flange Materi | ial: | | Note 2 | | | ı | Signal Type: Frequency: | | | | | | | |
| SDUCER | Flange Materi Element Mate | ial: | | | | | 1 | Signal Type: Frequency: Cable Length: | dia | | | | | | |
| ANSDUCER | Flange Materi Element Mate Vessel I.D. | ial: erial: | | Note 2 Note 2 | | | (| Signal Type: Frequency: Cable Length: Conduit Connec | | | | | | | |
| TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement | ial: erial: t Range: | | Note 2 Note 2 0 - 10.5 met | ers | | (| Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ | gory: | | | | | | |
| TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos | ial: prial: t Range: | | Note 2 Note 2 0 - 10.5 met | | | (| Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Cates Ambient Tempe | gory: | | | Sieme | ne | | |
| TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Con | ial: rial: t Range: sition: nnection: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N | PT | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ Ambient Tempe Manufacturer: | gory: | | | Sieme Sitrans Pro | | | |
| TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos | ial: rial: t Range: sition: nnection: | | Note 2 Note 2 0 - 10.5 met | PT | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Cates Ambient Tempe | gory: | | | Sieme Sitrans Pro | | | |
| TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Con | ial: rial: t Range: sition: nnection: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N | PT | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ Ambient Tempe Manufacturer: | gory: | | | | | | |
| TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Con | ial: rial: t Range: sition: nnection: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N | PT s | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ Ambient Tempe Manufacturer: Model: | gory: | | | | be LU | | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M | ial: rial: t Range: sition: nnection: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas | PT S | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): | gory: | F | ilange ad | Sitrans Pro | bbe LU | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M | ial: prial: t Range: sition: nnection: daterial: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas | PT s | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ Ambient Tempe Manufacturer: Model: | gory: | F | flange ad | Sitrans Pro | bbe LU g 80mm AN | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: | ial: prial: t Range: sition: nnection: daterial: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas Transmittt Local (Note | PT s | | 1 | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: | gory: | F | flange ad | Sitrans Pro CSA lapter for matin | g 80mm AN | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla | ial: prial: t Range: sition: nnection: daterial: | | Note 2 Note 2 0 - 10.5 mel Vertical 50MM (2") N Fibre Glas Transmittt Local (Note NEMA 42) | PT s | | | Signal Type: Frequency: Cable Length: Conduit Connect NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: | gory: rature: | F | flange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" | g 80mm AN NPT | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: | ial: prial: t Range: sition: nnection: daterial: | | Note 2 Note 2 0 - 10.5 mel Vertical 50MM (2") N Fibre Glas Transmittt Local (Note NEMA 4) | PT ss er 2) (aay / Vendor | | | Signal Type: Frequency: Cable Length: Conduit Connect NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: | gory: rature: | F | ilange ad | CSA lapter for matin 2 x 1/2" Profibus | g 80mm AN NPT | Si flange | |
| TRANSMITTER TRANSDUCER | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material | ial: t Range: sitton: nnection: daterial: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas Transmitte Local (Note NEMA 4) LCD Displ. To be filled-out by | PT s s | | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Cate Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculat | gory: rature: | F | ilange ad | CSA lapter for matin 2 x 1/2" Profibus | g 80mm AN NPT | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material Output: | ial: t Range: sitton: nnection: daterial: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas Transmittt Local (Note NEMA 4) LCD Displ To be filled-out by Profibus P. | PT s s | | | Signal Type: Frequency: Cable Length: Conduit Connect NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculat SS Tag: | gory: rature: | F | flange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" Profibus Yes | g 80mm AN NPT | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material Output: Communicatic | ial: t Range: sitton: nnection: daterial: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas Transmittt Local (Note NEMA 4) LCD Displ To be filled-out by Profibus P. | PT s s | | | Signal Type: Frequency: Cable Length: Conduit Connect NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculat SS Tag: | gory: rature: | F | flange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" Profibus Yes | g 80mm AN NPT | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material Output: Communicatic | ial: t Range: sitton: nnection: daterial: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glas Transmittt Local (Note NEMA 4) LCD Displ To be filled-out by Profibus P. | PT s s | | | Signal Type: Frequency: Cable Length: Conduit Connect NDE Test Categ Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculat SS Tag: | gory: rature: | F | lange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" Profibus Yes | g 80mm AN NPT | Si flange | |
| | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material Output: Communicatic Range: | ial: ial: irial: t Range: sition: nnection: taterial: isss: | s were standardized | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glass Transmittt Local (Note NEMA 4) LCD Displ. To be filled-out by ProfibusP. | PT s s er 2) (aay Vendor A | o altern | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Cate Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculal SS Tag: Accuracy: | gory: rature: | F | ilange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" Profibus Yes | g 80mm AN NPT | Si flange | |
| TRANSMITTER . | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material Output: Communication Range: | ial: ial: irial: t Range: sition: nnection: taterial: isss: | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glass Transmittt Local (Note NEMA 4) LCD Displ. To be filled-out by ProfibusP. | PT s s er 2) (aay Vendor A | o altern | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Cate Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculal SS Tag: Accuracy: | gory: rature: | F | flange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" Profibus Yes | g 80mm AN NPT | Si flange | |
| TRANSMITTER . | Flange Materi Element Mate Vessel I.D. Measurement Mounting Pos Processs Cor Connection M Function: Mounting: Enclosure Cla Display: Case Material Output: Communication Range: | ial: ial: irial: t Range: sition: nnection: daterial: irial: iri | | Note 2 Note 2 0 - 10.5 met Vertical 50MM (2") N Fibre Glass Transmittt Local (Note NEMA 4) LCD Displ. To be filled-out by ProfibusP. | PT s s er 2) (aay Vendor A | o altern | | Signal Type: Frequency: Cable Length: Conduit Connec NDE Test Cate Ambient Tempe Manufacturer: Model: Approval(s): Mounting Kit: Cable Entries: Power Wiring: Volume Calculal SS Tag: Accuracy: | gory: rature: | F | flange ad | Sitrans Pro CSA lapter for matin 2 x 1/2" Profibus Yes | g 80mm AN NPT | Si flange | |
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| Ultrasonic Level Meter SHEET 1 OF 1 NO. DATE REVISION BY CHK'D PROC. APP | | | | | | | | | Lev | el El | emen | t | | | | A SHEET | | REV. |
|--|-----------|--|------------------|---------------|-------------------|--------------|---------|--------------|--------|---------------|------------|--------|-------------|-------|--------------|-----------|------------|-------|
| RO UP | | | | | | | | UI | Itras | onic Le | evel Met | ter | | | | | | |
| Project: 21-0107-015 | | ZU | | | | 1 | NO. | | | | | | | | BY | | | APPR. |
| TAG NO: LIT-G07502 Serial No! Loop Wring Diagrams: 1-0101.AILD-G206-001 | | GROU |) P | | | | 0 | 2022-07 | 7-13 | | Issued for | Adde | ndum | | NP | AF | | gns3 |
| TAG NO: LIT-G07502 Serial No! Loop Wring Diagrams: 1-0101.AILD-G206-001 | | | | | | | | | | | | | | | | | | * |
| Light Log Wring Diagrams 1-0101.AILD-G206-001 | Pro | niect: | | 21-0107- | 015 | | | | | | | | | | | | | |
| Life | | Jeet. | | 21-0107- | | | | | | | | | | | | | | |
| Asset Not PRID: 1-0101-PPID-G012-001 Line D: Size: Schedule: | TA | G NO: | LIT- | G07502 | | | | | | | | | - | | 1-01 | | | |
| Description: ULTRASONIC LEVEL TRANSMITTER Model: Stram Probe LU Purchase Order: Vendor: Trans West Sammers Model: Stram Probe LU Purchase Order: Vendor: Trans West For Chloride Fuld: Fend Chloride Liquid Trans West Fuld: Fend: Liquid Trans West Fuld: State: Liquid Town Normal (Operating): Max (Full Scale): Units town of the probability of the probability of the properties of the probability of t | Λ.ο.ο. | at Na | | | | 1.0 | 101 [| DID CO10 | 0.001 | | | ssel N | lumber: | Cino | | | | |
| Design Pressure: 0 psig Tank Top Style: Flat | ASS | et ivo: | | | P&ID: | 1-0 | 101-6 | PPID-G012 | 2-001 | | | uror: | | Size | | | edule: | |
| Purchase Order: Vendor: Trans-West | Des | cription: | | ULTR. | ASONIC LEVE | L TRANSMI | TTEF | ? | | | | urci. | | | | | J | |
| Found Foun | Purc | hase Orde | er: | | | | | | Vend | lor: | | | | | | | | |
| Fluid State: Units | | | | | | | | | | | | | | | | | | |
| Four Min: Normal (Operating): Max (Full Scale): Units | | | | | | | | | | | | | | | | | | |
| Min: Normal (Operating): Max (Full Scale): Units | | Fluid: | | | | | | | Fe | erric Chlori | de | | | | | | | |
| Design Fressure: 0 page Tank Top Style: Flat | | Fluid State | | | | | | | | Liquid | | | | | | | | |
| Design Fressure: 0 page Tank Top Style: Flat | ſΩ | | | | | | | | | | | | | | | | | |
| Design Fressure: 0 page Tank Top Style: Flat | ž | | | Min: | | | Norr | mal (Operati | ing): | | | | Max (Full S | Scale |): | | Uı | nits |
| Design Fressure: 0 page Tank Top Style: Flat | \exists | | | | - | | 1 | | | - | | | | | - | | | |
| Design Fressure: 0 page Tank Top Style: Flat | | | | | | | | | | | | | | | | | | |
| Design Fressure: 0 page Tank Top Style: Flat | Ó | Temperatu | re | | 5 | | | | | 20 | | | | | 35 | | | C |
| Level Empty: | | | | | | | | peig | Tank | Ton Style: | | 1 | | | Elet | | | |
| Level Empty: 0 meters | Š | | | | | | | | | | | | | | | | | |
| Level Empty: | S | | • | 1.5748 m | 0 10 00 | | | | | | | 0.863 | 6 m | | i iat | | | |
| Level Empty: | S | | ~ | | | | | | | | | _ | | | | | | |
| Special Condition: N/A Transducer Type: Ultrasonic Rated Temperature: Measurement Type: Rated Pressure: Body Material Note 2 Signal Type: Flange Material: Note 2 Frequency: Element Material: Note 2 Cable Length: Vessel LD. Conduit Connection: Measurement Range: 0 · 1.2 meters NDE Test Category: Mounting Position: Vertical Ambient Temperature: Processe Connection: 50MM (2") NPT Manufacturer: Slemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. 2. Internation to the acceptance. In Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | Ф | | | 0 meters | | | | | | | | | | | 20 | | 0 | °C |
| Transducer Type: Ultrasonic Rated Temperature: Measurement Type: Body Material Note 2 Signal Type: Body Material Note 2 Frequency: Element Material: Note 2 Frequency: Element Material: Note 2 Cable Length: Vessel LD. Conduit Connection: Measurement Range: 0 - 1.2 meters NDE Test Category: Mounting Position: Vertical Ambient Temperature: Processe Connection: 50MM (2") NPT Manufacturer: Siemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 12" NPT Display: LCD Display Power Wiring: Ioop Powered Case Material: Vessel Process Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | | Level Full: | | 1.024 meters | | | | | Area | Classificat | ion: | Non F | lazardous, | Corr | osive | | | |
| Measurement Type: Body Material Note 2 Signal Type: Flange Material: Note 2 Frequency: Element Material: Note 2 Cable Length: Vessel LD. Conduit Connection: Measurement Range: Mounting Position: Processs Connection: Connection Material: Fibre Glass Function: Functi | | Special Co | ndition: | N/A | | | | | | | | | | | | | | |
| Measurement Type: Body Material Note 2 Signal Type: Flange Material: Note 2 Frequency: Element Material: Note 2 Cable Length: Vessel LD. Conduit Connection: Measurement Range: Mounting Position: Processs Connection: Connection Material: Fibre Glass Function: Functi | | | | | | | | | | | | | | | | | | |
| Measurement Type: Body Material Note 2 Signal Type: Flange Material: Note 2 Frequency: Element Material: Note 2 Cable Length: Vessel LD. Conduit Connection: Measurement Range: Mounting Position: Processs Connection: Connection Material: Fibre Glass Function: Functi | | | | | | | | | | | | | | | | | | |
| Body Material Note 2 Signal Type: Flange Material: Note 2 Frequency: Element Material: Note 2 Cable Length: Vessel I.D. Conduit Connection: Measurement Range: 0 - 1.2 meters NDE Test Category: Mounting Position: Vertical Ambient Temperature: Processa Connection: 50MM (2") NPT Manufacturer: Siemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Unput: 4-20mA SS Tag: Communication Protocol: Range: 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | | | | | Ultraso | onic | | | - | | | | | | | | | |
| Flange Material: Flange Material: | ~ | | | | Nata | 0 | | | 1 | | : | | | | | | | _ |
| Processs Connection: 50MM (2") NPT Manufacturer: Siemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | 岜 | | | | | | | | | | | | | | | | | - |
| Processs Connection: 50MM (2") NPT Manufacturer: Siemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | \supset | | | | | | | | | | | | | | | | | _ |
| Processs Connection: 50MM (2") NPT Manufacturer: Siemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | SE | | | | | | | | - | | ction: | | | | | | | |
| Processs Connection: 50MM (2") NPT Manufacturer: Siemens Connection Material: Fibre Glass Model: Sitrans Probe LU Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | \forall | Measureme | ent Range: | | 0 - 1.2 m | neters | | | | | | | | | | | | |
| Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | 出 | | | | Vertic | cal | | | Ambie | ent Tempe | rature: | | | | | | | |
| Function: Transmitter Approval(s): CSA Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: loop Powered Case Material: Volume Calculation: Yes Output: 4-20mA SS Tag: Communication Protocol: Accuracy: 0.15% 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | | Processs C | Connection: | | 50MM (2" | ') NPT | | | Manu | facturer: | | | | | Siemer | IS | | |
| Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange | | Connection | Material: | | Fibre G | ilass | | | Mode | l: | | | | | Sitrans Prol | be LU | | |
| Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange Enclosure Class: NEMA 4X Cable Entries: 2 x 1/2" NPT Display: LCD Display Power Wiring: Output: 4-20mA SS Tag: Communication Protocol: Range: 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | | | | | | | | | | | | | | | | | | |
| Mounting: Local (Note 2) Mounting Kit: Flange adapter for mating 80mm ANSi flange | | le | | | | | | | | -1(-) | | | | | | | | |
| 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | m_ | | | | | | | | _ | | | | Elonge | ndon. | | . 00mm AN | Ci flanca | |
| 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | 岜 | | Class: | | | | | | + | | | | riange a | auapt | | | ioi iiange | |
| 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | Ę | | Oidoo. | | | | | | 1 | | | | | | | | | |
| 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | SN | | rial: | | 200 0.0 | opidy | | | + | | tion: | | | | | 5. Gu | | |
| 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | AN | | | | mA | | | 1 | | | | | | | | | | |
| 1. Manufacturer and models were standardized by the City via RFP 449-2014, no alternates or substitutes will be accepted. | T. | | | | | | | 1 | | | | | | 0.15% | , | | | |
| 2. Information to be provided by Vendor | | | | | | | | | | | | | | | | | | |
| 2. Information to be provided by Vendor | | | | | | | | | | | | | | | | | | |
| 2. Information to be provided by Vendor | | | | | | | | | | | | | | | | | | |
| 2. Information to be provided by Vendor. | | | | | d by the City via | RFP 449-2014 | 4, no a | lternates or | substi | itutes will b | e accepted | l | | | | | | |
| | S | 2. Informati | on to be provide | ed by Vendor. | | | | | | | | | | | | | | |
| 2 | E | | | | | | | | | | | | | | | | | |
| | S | | | | | | | | | | | | | | | | | |
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| | V | | | | N | 10 | | | onic Le | evel Met | | 1 | | SHEET | 1 | OF | 1 |
| | GROU | | | | | 10. | DATE | - | | | ISION | | | BY | CHK'D JP | PROC. | APPR. |
| | | | | | _ | 0 | 2022 18 | 3 05 | - 15 | ssued for (| Jonsti | ruction | | DG | JP | | |
| | | | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107-0 |)15 | _ | | | | | | | | | | | | |
| | | | | Serial No | | | | | | Loop Wiri | ina Di | agrams. | | 1-01 | 01-AIFS- | F204-001 | |
| TA | G NO: | LIT- | W08101 | Spec No: | | | | | | Line / Ves | | _ | | 101 | TK-F08 | | |
| Ass | et No: | | | P&ID: | 1-0 | 101-F | PPID-F005 | 5-001 | | Line ID: | | | Size |): | | edule: | |
| | | | | | | | | | | Manufact | urer: | | | | iemens | | l |
| Des | cription: | | ULTRA | ASONIC LEVEL 1 | TRANSMIT | ITER | 1 | | | Model: | | | | Sitrar | Probe Ll | J | |
| Puro | chase Orde | er: | | | | | | Vend | or: | I | | | | | ns-West | | |
| Req | uisition Nu | mber: | | | | | | Job N | lumber: | | | | | | | | |
| | | | | | | | | | | | , | | | | | | |
| | Fluid: | | | | | | | Sod | um Hydro | xide | | | | | | | |
| | Fluid State: | : | | | | | | | Liquid | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| တ | | | Min: | | | Norn | nal (Operatir | ng): | | | | Max (Full S | cale) | : | | Uı | nits |
| 6 | Flow: | | | | | | | | | | | | | | | | |
| PROCESS CONDITIONS | Pressure: | | | 60 | | | | | 60 | | | | | 60 | | p | sig |
| Ä | Temperatu | re | | 15 | | | | | 20 | | | | | 30 | | ۰ | С |
| \mathcal{C} | Design Pressure: 150 | | | | | | | | | | | | | | | | |
| SS | Design Pressure: 150 Design Temperature: 10 to 50 | | | | | | psig | Tank 1 | op Style: | | | | | Flat | | | |
| Ë | Design Temperature: 10 to 50 | | | | | | °C | Tank E | Bottom Sty | le: | | | | Flat | | | |
| Š | Vessel Height: 4.8 meters | | | | | | | Width | / Diameter | r: | 3.7 m | eters | | | | | |
| ᆸ | | | | | | | | Higher | Viscosity | : | | | | 1.53 | | c | :P |
| | Level Empt | ty: | 0 meters | | | | | Ambie | nt Temper | ature: | | | | 20 | | ۰ | С |
| | Level Full: | | 4.8 meters | | | | | Area C | Classificati | on: | Non F | Hazardous, | Corro | osive | | | |
| | Special Co | ndition: | N/A | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | _ | | | | | | | | | | | | | | | |
| | Transduce | | | Ultrasonio | : | | | | Temperat | ure: | | | | | | | |
| | Measureme | | | Notes | | | | | Pressure: | | | | | | | | |
| ER | Body Mater Flange Mat | | | Note 2 | | | | Signal | | | | | | | | | |
| TRANSDUCER | Element Ma | | | Note 2 | | | | Freque | Length: | | | | | | | | |
| SDI | Vessel I.D. | aterial. | | Note 2 | | | | | it Connec | tion: | | | | | | | |
| Ž | Measureme | ent Pange: | | 0 - 4.8 mete | ire | | | | est Categ | | | | | | | | |
| TR | Mounting P | | 1 | Vertical | | | | | nt Temper | | | | | | | - | |
| | | Connection: | | 50MM (2") N | PT | | | - | acturer: | | | | | Siemer | ns | | |
| | Connection | | | Fibre Glas | | | | Model | | | | | | Sitrans Pro | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Function: | | | Transmitte | r | | | Appro | /al(s): | | | | | CSA | | | |
| œ | Mounting: | | | Local (Note | 2) | | | | ing Kit: | | | Flange a | adapt | er for mating | 80mm AN | Si flange | |
| TRANSMITTER | Enclosure (| Class: | | NEMA 4X | | | | 1 | Entries: | | | | | 2 x 1/2" N | NPT | | |
| ⊥ | Display: | | | LCD Displa | ny | | | Power | Wiring: | | | | | Profibus | PA | | |
| NS. | Case Mate | rial: | | To be filled-out by | Vendor | | | Volum | e Calculat | ion: | | | | Yes | | | |
| \X | Output: ProfibusPA | | | | ١ | | | SS Ta | g: | | | | | | | | |
| ۴ | Communication Protocol: ProfibusPA | | | | | | | Accura | асу: | | | | | 0.15% |) | | |
| | Range: | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | 1. Manufac | turer and models | s were standardized t | by the City via RFP | 449-2014, n | o alte | rnates or su | bstitute | s will be a | ccepted. | | | | | | | |
| (0 | 2. Informati | ion to be provide | d by Vendor. | | | | | | | | | | | | | | |
| 邕 | | | | | | | | | | | | | | | | | |
| NOTES | | | | | - | | - | | | - | | | | - | | | |
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| | | | | | | | 2022 10 | 3 00 | 1, | 33464 101 | COMO | iraction | | | - 01 | | |
| | | | | | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107- | 015 | | | | | | | | | | | | | |
| | 0 N/O | | 14/00004 | Serial No | <u> </u> | | ı | | | Loop Wii | ring D | iagrams: | | 1-01 | 101-AIFS- | F204-001 | |
| IA | G NO: | LII- | W08201 | Spec No: | | | | | | Line / Ve | ssel N | Number: | | | TK-F08 | 320 | |
| Ass | et No: | | | P&ID: | 1-0 | 101-F | PPID-F005 | 5-001 | | Line ID: | | | Size |) : | Sch | edule: | |
| Des | cription: | | III TR | ASONIC LEVEL | TRANSMIT | TTFR | 1 | | | Manufac | turer: | | | Si | iemens | | |
| | op | | | | | | • | | | Model: | | | | | n Probe Ll | J | |
| | chase Orde | | | | | | | Vend | | | | | | Tra | ns-West | | |
| Req | uisition Nu | mber: | | | | | | Job I | Number: | | | | | | | | |
| | E | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Soc | dium Hydro | xide | | | | | | | |
| | Fluid State: | | | | | | | | Liquid | | | | | | | | |
| m | | | | | | Norn | nal (Operati | ua). | | | | Max (Full S | Scale) | | | U | nits |
| Š | Flow: | | | 3.0 | | IVOII | nai (Operati | rig). | | | | IVIAX (I UII O | ocaic) | • | | O. | iito |
| Ĕ | Pressure: | | | 60 | | | | | 60 | | | | | 60 | | p | sig |
| \exists | Temperatur | re | | 15 | | | | | 20 | | | | | 30 | | | C |
| CONDITIONS | | | | | | | | | | | | | | | | | |
| | Design Pres | Design Pressure: 150 Design Temperature: 10 to 50 | | | | | psig | Tank | Top Style: | | | | | Flat | | | |
| PROCESS | Design Temperature: 10 to 50 | | | | | | °C | Tank | Bottom Sty | le: | | | | Flat | | | |
| S | Vessel Height: 4.8 meters | | | | | | | Width | n / Diameter | r: | 3.7 m | neters | | | | | |
| 쑵 | Vessel Height: 4.8 meters Fluid Dielectric Constant: N/A | | | | | | | Highe | er Viscosity | | | | | 1.53 | | C | P |
| | Level Empt | y: | 0 meters | | | | | Ambi | ent Temper | ature: | | | | 20 | | c | C |
| | Level Full: | | 4.8 meters | | | | | Area | Classificati | on: | Non | Hazardous, | Corro | osive | | | |
| | Special Cor | ndition: | N/A | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Townstown | Torres | | Lilteranai | | | | Data | d Tamas a sad | | | | | | | | |
| | Transducer | | | Ultrasoni | | | | | d Temperat | ure: | | | | | | | |
| | Measureme Body Mater | | | Note 2 | | | | | d Pressure: al Type: | | | | | | | | |
| Ë | Flange Mat | | | Note 2 | | | | _ | uency: | | | | | | | | |
| TRANSDUCER | Element Ma | | | Note 2 | | | | | e Length: | | | | | | | | |
| ISD | Vessel I.D. | | | | | | | | uit Connec | tion: | | | | | | | |
| \ X Y | Measureme | ent Range: | | 0 - 4.8 met | ers | | | NDE | Test Categ | ory: | | | | | | | |
| ۲ | Mounting P | osition: | | Vertical | | | | Ambi | ent Temper | ature: | | | | | | | |
| | Processs C | | | 50MM (2") N | IPT | | | Manu | facturer: | | | | | Siemer | ns | | |
| | Connection | Material: | | Fibre Glas | ss | | | Mode | el: | | | | | Sitrans Pro | be LU | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Function: | | | Transmitte | | | | _ | oval(s): | | | | | CSA | | | |
| ER | Mounting: | | | Local (Note | | | | _ | ting Kit: | | | Flange | adapt | er for mating | | Si flange | _ |
| RANSMITTER | Enclosure (| Class: | | NEMA 4) | | | | | Entries: | | | | | 2 x 1/2" N | | | |
| SMI | Display: | rial | | LCD Displ | | | | _ | er Wiring: | ioni | | | | Profibus | PA | | |
| ž | Case Material: To be filled-out by V | | | | | | | SS Ta | ne Calculat | 1011. | | | | Yes | | | |
| 몺 | Output: ProfibusPA Communication Protocol: ProfibusPA | | | | | | | Accu | | | | | | 0.15% | 1 | | |
| | Range: | | | | | | | . 1000 | ,. | | | | | 0.1070 | - | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | 1. Manufac | turer and models | s were standardized | by the City via RFP | 449-2014, n | o alte | rnates or su | bstitute | es will be a | ccepted. | | | | | | | |
| دم | | on to be provide | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | |
| Ö | | | | | | | | | | | | | | | | | |
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| | N.C. | | | | _ | 10 | | | onic Le | | | | | SHEET | 1 | OF | 1 |
| I [—] | GROU | | | | | 10. | DAT | | | | /ISION | | | BY | CHK'D | PROC. | APPR. |
| | | | | | | 0 | 2022-0 | 7-13 | | Issued fo | r Adde | endum | | NP | AF | gas | gnes |
| | | • | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107-0 | 015 | | | | | | | | | | | | | |
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| lτa | G NO: | I IT- | Y07902 | Serial No | | | | | | | | iagrams: | | 1-01 | 01-AILD- | | |
| | | | | Spec No: | | | | | | Line / Ve | essel N | | | | TK-Y07 | | |
| Ass | et No: | | | P&ID: | 1-0 | 101-F | PPID-Y00 | 1-001 | | Line ID: | | | Size | | | edule: | |
| Des | cription: | | ULTRA | ASONIC LEVEL TF | ANSMI | TTER | l | | | Manufac | cturer: | | | | emens | | |
| | • | | | | | | | l | | Model: | | | | | Probe Ll | J | |
| _ | hase Orde | | | | | | | Vend | | | | | | Tra | ns-West | | |
| Req | uisition Nu | mber: | | | | | | Job | Number: | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | F | erric Chlori | de | | | | | | | |
| | Fluid State | : | | | | | | | Liquid | | | | | | | | |
| S | | | le: | | | | 1.0 | | | | | | | | | | |
| N | | | Min: | | | Norn | nal (Operat | ting): | | | | Max (Full S | cale) | , | | U | nits |
| CONDITIONS | Flow: | | | - | | ╄ | | | - | | | | | - | | | |
| | Pressure: | | | 0 | | | | | 0 | | | | | 0 | | | sig |
| Ó | Temperatu | ire | | 5 | | | | | 20 | | | | | 35 | | , | C |
| | | | | | | | 1 . | _ | | | | | | | | | |
| PROCESS | Design Pre | | | 0 | | | psig | | Top Style: | | | | | Flat | | | |
| 믱 | Design Ter | • | 1.5748 | 5 to 35 | | | °C | | Bottom Sty | - | | | | Flat | | | |
| Õ | Vessel Hei | | | | | | n / Diamete | | 0.863 | 36 | | | | | | | |
| 풉 | | ctric Constant: | N/A | | | | | _ | er Viscosity | | N/A | | | | | | |
| | Level Emp | ty: | 0 meters | | | | | | ent Tempe | | | | 0 | 20 | | , | C |
| | Level Full: | | 1.024 meters | | | | | Area | Classificat | ion: | Non | Hazardous, | Corr | osive | | | |
| | Special Co | mailion: | N/A | | | | | | | | | | | | | | |
| | | | | | | _ | | _ | | | _ | | _ | | | | |
| | Tranaduaa | r Tuno: | | Ultrasonic | | | | Data | d Tomporo | tura | | | | | | | _ |
| | Transduce Measurem | | | Ultrasonic | | | | _ | d Temperated Pressure | | | | | | | | |
| ~ | Body Mate | • • | | Note 2 | | | | _ | al Type: | • | | | | | | | |
| TRANSDUCER | Flange Ma | | | Note 2 | | | | | | | | | | | | | |
| \leq | Element M | | | Note 2 | | | | | uency: E Length: | | | | | | | | |
| SD | Vessel I.D. | | | Note 2 | | | | _ | luit Connec | etion: | | | | | | | |
| Z | | ent Range: | | 0 - 1.2 meters | | | | _ | Test Cate | | | | | | | | |
| 克 | Mounting F | | | Vertical | ' | | | _ | ent Tempe | | | | | | | | |
| | | Connection: | | 50MM (2") NP | <u> </u> | | | _ | ıfacturer: | raturo. | | | | Siemer | ns | | |
| | Connection | | | Fibre Glass | | | | Mode | | | | | | Sitrans Pro | | | |
| | Comicodo | T Waterian | | 1 ibro diago | | | | mode | , | | | | | Oitrario 1 10 | 50 20 | | |
| | | | | | | | | | | | | | | | | | |
| | Function: | | | Transmitter | | | | Appr | oval(s): | | | | | CSA | | | |
| щ | Mounting: | | | Local (Note 2) | 1 | | | | nting Kit: | | | Flange a | dapt | er for mating | 80mm AN | ISi flange | |
| TRANSMITTER | Enclosure | Class: | | NEMA 4X | | | | _ | Entries: | | | | | 2 x 1/2" N | | | |
| I I | Display: | | | LCD Display | | | | _ | er Wiring: | | | | | loop Pow | | | |
| S | Case Material: | | | | | | | _ | ne Calcula | tion: | | | | Yes | | | |
| A | Output: 4-20mA | | | | | | | SS T | | | | | | | | | |
| 巴巴 | Communication Protocol: | | | | | | | _ | racy: | | | | | 0.15% | , | | |
| | Range: | | | | | | | | | | | | | | | | |
| | | | <u> </u> | | | | | 1 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | 1. Manufac | cturer and model | s were standardized | by the City via RFP | 449-2014 | , no a | Iternates o | r subst | itutes will b | e accepte | d. | | | | | | |
| (0 | | ion to be provide | | · · · · · · · · · · · · · · · · · · · | | | | | | | | | | | | | |
| 邑 | | | <u> </u> | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| | | | | | | Level I | Elemer | nt | | | A SHEET | | REV. | |
|----------------|---|---------------|--|--------------|-------------------------------------|---|---|--------------------------|---------------|---|---------------------|---|------|--|
| | (GS | | | | н | ydrostatio | : I evel M | leter | | SHEET | 1 | OF | 1 | |
| | | | | N | | | | VISION | | BY | CHK'D | PROC. | APPR | |
| | GROUP | | | 14 | | | Issued fo | | ndum | NP | AF | 943 | gas | |
| | | | | | ZOZZ | 57 10 | 100000010 | 1710001 | iddiii | | 7.0 | | | |
| Pro | oject: | 21-0107- | 015 | | | | | | | | | | | |
| | | | Serial No | | | | Loop Wiring Diagrams: | | | 1-01 | 01-AILD- | F227-001 | | |
| TA | G NO: LIT | F07302 | Spec No: | | | | Line / Vessel Number: | | | | TK-F07 | | | |
| Asse | et No: | | P&ID: | 1-01 | 01-PPID-F00 |)4-001 | Line ID: | Size: Schedule: | | | | | | |
| Des | cription: | HYDR | OSTATIC LEVEL T | RANSMI | ΓTER | | Manufad | cturer: | | | Endress+Hauser | | | |
| | · | | | | | Varadam | Model: | | | | pilot FMX2 | 21 | | |
| | chase Order: uisition Number: | | | | | Vendor: Job Numbe | or: | | | 5 | ynergy | | | |
| neq | uisition Number. | | | | | JOD NUMBE | ₹I. | | | | | | | |
| | Fluid: | | | | | Ferric Cl | nloride | | | | | | | |
| | Fluid State: | | | | | Liqu | id | | | | | | | |
| (0 | | | | | | | | | | | | | | |
| CONDITIONS | | Min: | | | Normal (Opera | ating): | | M | Max (Full Sca | e): | | Ur | nits | |
| 일 | Flow: | | - | | | - | | | | - | | $-\!$ | | |
| <u></u> | Pressure: | | 0 | | | 21 | | | | 21 | | | sig | |
| 6 | Temperature | | 0 | | | 20 | | | | 40 | | ° | С | |
| | Design Pressure: | | 21 | | noia | Tank Top St | vlo: | _ | | Flat | | | | |
| PROCESS | Design Temperature: | | 0 to 40 | | psig °C | Tank Botton | | | | Flat | | _ | | |
| Ö | Vessel Height: | 10.85 m | 0 10 40 | | | | | | | .267 m | | | | |
| 8 | Fluid Dielectric Constant: | N/A | | Higher Visco | | N/A | | | | | | | | |
| ட | Level Empty: | 0 meters | | | Ambient Temperature: | | | | 20 | | | | | |
| | Level Full: | 10.112 meters | | | Area Classification: | | | Non Hazardous, Corrosive | | | | | | |
| | Special Condition: | N/A | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Transducer Type: | | | | | Rated Temp | erature: | _ | | 50 °C | | | | |
| | Measurement Type: | | Hydrostatic | | Rated Temperature: Rated Pressure: | | | | | 30 0 | | | | |
| | | | | | | | | | | 4-20mA | | | | |
| Щ. | Body Material | Level probe | corrosion resistant w | ith heat-sh | rink sleeve | Signal Type | | | | | | | | |
| CER | Flange Material: | Level probe | corrosion resistant w | ith heat-sh | rink sleeve | Signal Type Frequency: | : | | | | | | | |
| DUCER | | | corrosion resistant w | | | | | | | 30 mete | ers | | | |
| NSDUCER | Flange Material: | | 4435 coated with PPS | S/Polyolefir | | Frequency: | h: | | | | | | | |
| RANSDUCER | Flange Material: Element Material: Vessel I.D. Measurement Range: | | 4435 coated with PPS 0 - 10.5 meter | S/Polyolefir | | Frequency: Cable Lengt Conduit Cor NDE Test C | h: inection: ategory: | | | 30 mete | | | | |
| TRANSDUCER | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: | | .4435 coated with PPS 0 - 10.5 meter Vertical | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter | h: inection: ategory: inperature: | | | 30 mete Note 1 | 1 | | | |
| TRANSDUCER | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: | | 4435 coated with PPS 0 - 10.5 meter | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture | h: inection: ategory: inperature: | | EMY2 | 30 meter Note 1 | lauser | 271 | | |
| TRANSDUCER | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: | | .4435 coated with PPS 0 - 10.5 meter Vertical | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter | h: inection: ategory: inperature: | | FMX2 | 30 mete Note 1 | lauser |)Z1 | | |
| TRANSDUCER | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: | | .4435 coated with PPS 0 - 10.5 meter Vertical | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture | h: inection: ategory: inperature: | | FMX2 | 30 meter Note 1 | lauser | SZ1 | | |
| _ | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: | | .4435 coated with PPS 0 - 10.5 meter Vertical | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture | h: inection: ategory: nperature: ir: | | FMX2 | 30 meter Note 1 | lauser D15A PRPS | 3Z1 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: | | .4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: | h: inection: ategory: inperature: ir: | | FMX2 | 30 meter Note 1 Endress+H 1-CD251KGE | lauser 015A PRPS | SZ1 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: | | .4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s) Mounting Ki Cable Entrie | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE | lauser 015A PRPS | 521 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: | | .4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 Transmitter | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE | lauser D15A PRPS | 521 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: | | 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cald | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | 321 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: | | 0 - 10.5 meter Vertical 3" Flange 150 Transmitter | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | 3Z1 | | |
| _ | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Protocol: | | 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cald | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | 3Z1 | | |
| _ | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: | | 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | SZ1 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Protocol: | | 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | SZ1 | | |
| _ | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Protocol: | 1. | 4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | SZ1 | | |
| TRANSMITTER - | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Protocol: Range: | 1. | 4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | 5Z1 | | |
| TRANSMITTER - | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Protocol: Range: | 1. | 4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | SZ1 | | |
| | Flange Material: Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection: Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Protocol: Range: | 1. | 4435 coated with PPS 0 - 10.5 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Lengt Conduit Cor NDE Test C Ambient Ter Manufacture Model: Approval(s): Mounting Ki Cable Entrie Power Wirin Volume Cale SS Tag: | h: inection: ategory: nperature: or: | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | lauser D15A PRPS | 5Z1 | | |

| | | | | | | | | Lev | el El | emei | nt | | | DATA SHEET NO. DST-LIT-F07402 | | | REV. |
|----------------|-------------|-----------------|----------------------|----------------------------|-------------------------------------|--------------------------------|--------------|--------------|--------------------------|----------------------------|-----------------|-------------|------|-------------------------------|-------------|----------|-----------|
| | ZC | | | | | | | | | | | | | | | | 0 |
| | (G | | | | N 1 | 0 | DATE | | static L | | leter VISION | | | SHEET | 1 CUIVID | OF | 1 APPF |
| l [—] | GROU | | | | | O. 0 | 2022-07 | | | Issued fo | | | | BY NP | CHK'D AF | PROC. | APPH |
| | | | | | - | U | 2022-07 | 7-13 | | issuea id | or Adde | endum | | NP | AF | 9,- | y y |
| | | | | | + | | | | | | | | | | | | |
| Pro | oject: | | 21-0107- | 015 | | | | | | | | | | | | | |
| | 0.110 | LIT | E07400 | Serial No | | | | | | Loop W | iring D | iagrams: | | 1-0101-AILD-F228 | | F228-001 | |
| IA | G NO: | LII- | F07402 | Spec No: | | | | | Line / Vessel Number: | | | TK-F0740 | | | | | |
| Ass | et No: | | | P&ID: | 1-01 | 101-F | PID-F004 | -001 | 001 Line ID: Size: | | | | | | | | |
| Des | cription: | | HYDR | OSTATIC LEVEL TI | RANSMI | TTEF | 3 | | | Manufa | cturer: | | | Endre | | | |
| | · | | | | | | | 1 | | Model: | | | | | pilot FMX2 | 21 | |
| | hase Orde | | | | | | | Vend | | | | | | S | ynergy | | |
| Req | uisition Nu | mber: | | | | | | Job I | Number: | | | | | | | | |
| | Fluid: | | | | | | | F. | erric Chlor | ide | | | | | | | _ |
| | Fluid State | | | | | | | - '' | Liquid | ide | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| NS | Min: | | | | | Norm | nal (Operati | ing): | | | | Max (Full S | cale | : | | U | nits |
| CONDITIONS | Flow: | | | | | | | | | | | | | | | | |
| 듬 | Pressure: | | | = | | 21 | | | | | | | | 21 | | р | sig |
| \mathbb{Z} | Temperatu | re | | 0 | | 20 | | | | | | | | 40 | | | .C |
| | | | | | | | | | | | | | | | | | |
| ROCESS | Design Pre | | | 21 | | | psig | | | | | | Flat | | | | |
| Ë | Design Ter | • | | 0 to 40 | | | °C | °C Tank Bott | | | | | | Flat | | | |
| õ | Vessel Hei | ~ | 10.85 m | | Width / Diameter: Higher Viscosity: | | | | 4.267 m | | | | | | | | |
| 뇹 | Level Empt | ctric Constant: | N/A 0 meters | | | | | | | iscosity: N/A Temperature: | | | 20 | | | ·C | |
| | Level Full: | ıy. | 10.112 meters | | Area Classification: | | | | Non Hazardous, Corrosive | | | | | | | | |
| | Special Co | ndition: | N/A | | | | | | 5011 | osive | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Transduce | r Type: | | | | | | Rated | d Tempera | ture: | | | | 50 °C | ; | | |
| | Measureme | ent Type: | | Hydrostatic | | | | Rated | d Pressure | c . | | | | | | | |
| 띪 | Body Mate | rial | Level probe | corrosion resistant wit | h heat-sh | neat-shrink sleeve Signal Type | | | ıl Type: | | | | | 4-20mA | | | |
| RANSDUCER | Flange Mat | | | | | Frequency: | | | | | | | | | | | |
| ŭ | Element Ma | | 1. | .4435 coated with PPS | /Polyolefir | | | | | | 30 meters | | | | | | |
| SZ | Vessel I.D. | | | | | Conduit Connection: | | | | | Note 1 | | | | | | |
| Ä | Measureme | | | 0 - 10.5 meters | 3 | NDE Test Category: | | | | | | | | | | _ | |
| Η. | Mounting F | Connection: | | Vertical 3" Flange 150# | 4 | Ambient Temper Manufacturer: | | | | rature: | | | | Endress+H | laucor | | |
| | Connection | | | 3 Hange 130 | † | | | Mode | | | | FM | X21- | CD251KGE | | 371 | _ |
| | Commodion | · matoriali | | | | | | Mode | | | | | | OBZOTKG | 7107111111 | | _ |
| | | | | | | | | | | | | | | | | | |
| | Function: | | | Transmitter | | | | Appro | oval(s): | | | | | CSA | | | |
| ER | Mounting: | | | | | | | | ting Kit: | | | | | Note : | 1 | | |
| Ë | Enclosure | Class: | | NEMA 4X | | | | Cable | Entries: | | | • | | | • | • | |
| M | Display: | | | None | | | | Powe | r Wiring: | | | | 2 | wire loop p | owered | | |
| NS | Case Mate | rial: | | | | | | | ne Calcula | tion: | | | | | | | |
| RANSMITT | Output: | | | 4-20mA | | | | SS T | | | | | | | , | | |
| Н | | ation Protocol: | | 0 000 kD- | | | | Accu | acy: | | | | | 0.20% | • | | |
| | Range: | | | 0 - 200 kPa | | | | | | | | | | | | | _[|
| | | | | | | | | | | | | | | | | | |
| | 1. Cable-m | ounting-Screw I | NPT!-1/2, IP66/67 te | erminal box. | | | | | | | | | | | | | |
| (0 | | J | , | ** | | | | | | | | | | | | | |
| 邑 | | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| | | | | | | Level | Elemer | nt | | | A SHEET | | REV. | | |
|-----------------------|---|--------------|---|--------------|--|--|--|--------------------------|----------------|---|--------------------|----------|------|--|--|
| | (GS | | | | H | ydrostati | c I aval M | leter | | SHEET | 1 | OF | 1 | | |
| | ZU 3 | | | N | | | | VISION | | BY | CHK'D | PROC. | APPR | | |
| | GROUP | | | 140 | | | Issued fo | | dum | NP | AF | JAB | (MB | | |
| | | | | | 2022- | 57-13 | issued id | or Adderic | Juin | INI | Л | <i></i> | 7,- | | |
| Pro | oject: | 21-0107- | .015 | | | | | | | | | | | | |
| | | | Serial No | | | | Loop W | lirina Dia | aramai | 1.01 | 01-AILD- | T050 001 | | | |
| TA | G NO: L | IT-F08102 | Spec No: | | | | Loop Wiring Diagrams: Line / Vessel Number: | | | 1-01 | TK-F08 | | | | |
| Ass | et No: | | P&ID: | 1-01 | 01-PPID-F00 | 05-001 | Line ID: | Size: Schedule: | | | | | | | |
| Doc | cription: | HVDB | OSTATIC LEVEL 1 | TRANGMIT | Manufacturer: | | | | | Endre | | | | | |
| | | 111011 | | TIZIVOIVII | | | Model: | | | | pilot FMX2 | 21 | | | |
| | chase Order: | | | | | Vendor: | | | | S | ynergy | | | | |
| Req | uisition Number: | | | | | Job Numb | er: | | | | | | | | |
| | Fluid: | | | | | Sodium H | vdroxide | | | | | | | | |
| | Fluid State: | | | | | Liqu | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| CONDITIONS | | Min: | | | Normal (Operation | ating): | | М | lax (Full Scal | e): | | Ur | nits | | |
| 9 | Flow: | | - | | | - | | | | - | | | | | |
| 둡 | Pressure: | | - | | | 9 | | | | 9 | | | sig | | |
| 8 | Temperature | | 0 | | | 20 | | | | 40 | | ° | С | | |
| | Danima Dunanawa | | | | i- | Tauly Tau C | tula. | | | Flat | | | _ | | |
| SS | Design Pressure: Design Temperature: | | 9 0 to 40 | | psig °C | Tank Top S | | | | Flat Flat | | | | | |
| 징 | Vessel Height: | 4.8 m | 0 10 40 | | °C Tank Bottom Style: Width / Diameter: 3.6 m | | | | ı ıaı | | | | | | |
| PROCESS | Fluid Dielectric Const | | | | Higher Visc | | N/A | | | | | | | | |
| <u> </u> | Level Empty: | 0 meters | | | Ambient Temp | | | | | 20 | | ۰ | C | | |
| | Level Full: | 4.063 meters | | | Area Classification: | | | Non Hazardous, Corrosive | | | | | | | |
| | Special Condition: | N/A | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Transducer Type: | _ | | | | Rated Tem | perature: | | | 50 °C | | | | | |
| | Measurement Type: | | Hydrostatic | | | Rated Pres | | | | - 00 0 | | | | | |
| Œ | Body Material | | | | | | sure: | | | | | | | | |
| | Flange Material: | Level probe | corrosion resistant w | ith heat-sh | ink sleeve | Signal Type | | | | 4-20m | | | | | |
| $\ddot{\sigma}$ | riange material. | Level probe | corrosion resistant w | ith heat-shi | ink sleeve | Signal Type Frequency: | : | | | 4-20m. | 30 meters | | | | |
| DUCE | Element Material: | | corrosion resistant w | | | | i. | | | | Note 1 | | | | |
| NSDUCE | | | | | | Frequency: | th: | | | 30 mete | | | | | |
| RANSDUCE | Element Material: Vessel I.D. Measurement Range: | 1. | .4435 coated with PP | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C | th: nnection: | | | 30 mete | | | | | |
| TRANSDUCER | Element Material: Vessel I.D. Measurement Range: Mounting Position: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te | th: nnection: category: mperature: | | | 30 mete Note 1 | | | | | |
| TRANSDUCE | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection | 1. | .4435 coated with PP | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur | th: nnection: category: mperature: | | EMY2 | 30 meter Note 1 | auser | :71 | | | |
| TRANSDUCE | Element Material: Vessel I.D. Measurement Range: Mounting Position: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te | th: nnection: category: mperature: | | FMX2 | 30 mete Note 1 | auser | ;Z1 | | | |
| TRANSDUCE | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur | th: nnection: category: mperature: | | FMX2 | 30 meter Note 1 | auser | ;Z1 | | | |
| TRANSDUCE | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur | th: nnection: category: mperature: er: | | FMX2 | 30 meter Note 1 | auser | ;Z1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 156 | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: | th: nnection: category: mperature: er: | | FMX2 | 30 meter Note 1 Endress+H 1-CD251KGE | auser 015A PRPS | ;Z1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 156 Transmitter | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | SZ1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE | auser 015A PRPS | 521 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter NEMA 4X None | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entri Power Wirin Volume Cal | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | 3Z1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 156 Transmitter | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | 3Z1 | | | |
| TRANSMITTER TRANSDUCE | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Proto | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 156 Transmitter NEMA 4X None 4-20mA | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entri Power Wirin Volume Cal | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | 3Z1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter NEMA 4X None | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | 3Z1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Proto | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 156 Transmitter NEMA 4X None 4-20mA | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | SZ1 | | | |
| | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Proto Range: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | SZ1 | | | |
| TRANSMITTER . | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Proto Range: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | SZ1 | | | |
| TRANSMITTER . | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Proto Range: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | SZ1 | | | |
| _ | Element Material: Vessel I.D. Measurement Range: Mounting Position: Processs Connection Connection Material: Function: Mounting: Enclosure Class: Display: Case Material: Output: Communication Proto Range: | 1. | .4435 coated with PP. 0 - 4.8 meter Vertical 3" Flange 150 Transmitter NEMA 4X None 4-20mA 0 - 200 kPa | S/Polyolefin | | Frequency: Cable Leng Conduit Co NDE Test C Ambient Te Manufactur Model: Approval(s) Mounting K Cable Entric Power Wirin Volume Cal SS Tag: | th: nnection: category: mperature: er: : : : : : : : : : : : : : : : : | | FMX2 | 30 mete Note 1 Endress+H 1-CD251KGE CSA Note 1 | auser 015A PRPS | SZ1 | | | |

| | | | | | | | | Leve | I El | emen | t | | | | A SHEET | | REV. |
|--------------------|---|-----------------|----------------------|------------------------|--------------------|--|--------------|----------------------|---------|-----------------------|-----------------|-------------|-------|----------------|-----------|---------------|------|
| | KG | | | | | | Hv | droets | atic I | evel Me | ater | | | SHEET | 1 | OF | 1 |
| | ZU | | | | N | Ю. | DATE | | ILIC L | | ISION | | | BY | CHK'D | PROC. | APPR |
| İ | GROU | JP . | | | | 0 | 2022-07 | | | Issued for | | | | NP | AF | JAB | gas |
| | | | | | | | LOLL OF | -10 | | 100000 101 | 71000 | naam | | 141 | 7.11 | | |
| Pro | ject: | | 21-0107- | 015 | | | | | | | | | | | | | |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | Serial No | | | | | | Loop Wiring Diagrams: | | | 1.01 | 01 All D | F251-001 | | |
| TA | G NO: | LIT- | F08202 | Spec No: | | | | Line / Vesse | | | | | | 1-01 | TK-F08 | | |
| Ass | et No: | | | P&ID: | 1-0 | 1-0101-PPID-F005-001 Line ID: | | | | | Size: Schedule: | | | | | | |
| Das | cription: | | HVDR | OSTATIC LEVEL T | BANSMI | TTE | R | | | Manufact | turer: | | | Endress+Hauser | | | |
| | · | | 111611 | OOTATIO EEVEE T | T I/AI VOIVII | 116 | | 1 | | Model: | | | | | oilot FMX | 21 | |
| | hase Orde | | | | | | | Vendor | | | | | | S | ynergy | | |
| Req | uisition Nui | mber: | | | | | | Job Nui | mber: | | | | | | | | |
| | Fluid: | | | | | | | Sodiun | n Hydro | xide | | | | | | | |
| | Fluid State: | : | | | | | | | _iquid | Alde | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| CONDITIONS | | | Min: | | | Norn | mal (Operati | ng): | | | | Max (Full S | cale) | : | | Uı | nits |
| 9 | Flow: | | | | | | | | | | | | | | | | |
| 듬 | Pressure: | | | - | | | | 9 | | | | | | 9 | | p: | sig |
| S | Temperatu | re | | 0 | | | | 20 |) | | | | | 40 | | ۰ | С |
| | | | | • | | | | | 0.1 | | | | | 5 1. | | | |
| SS | Design Pre | | | 9 0 to 40 | | | psig °C | Tank To | • | | | | | Flat | | $-\!\!+\!\!-$ | _ |
| PROCESS | Design Ten Vessel Hei | | 4.8 meters | 0 to 40 | | °C Tank Bottom Style: Width / Diameter: 3.6 m | | | | | | | | | | _ | |
| 2 | | ctric Constant: | N/A | | | Higher V | | | | N/A | | | | | - | | |
| 砬 | Level Empt | | 0 meters | | | Ambient Temperature | | | | 20 | | | | | c | С | |
| | Level Full: | ·,· | 4.063 meters | | | | | | • | | Non F | Hazardous, | Corr | | | | |
| | Special Co | ndition: | N/A | | | | | | | | | | | | | - | |
| | | | • | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Transducer | | | | | Rated Temperature: Rated Pressure: | | | | | | 50 °C | | | | | |
| ~ | Measureme | | l aval avala | Hydrostatic | | | | | | : | | | | 4.00 | ^ | | |
| 岜 | Body Mater Flange Mat | | Level probe | COTTOSION TESISLANI WI | ın neat-sı | eat-shrink sleeve Signal Type: Frequency: | | | | | 4-20mA | | | | | | |
| TRANSDUCER | Element Ma | | 1. | 4435 coated with PPS | S/Polvolefi | | | | | | 30 meters | | | | | | |
| S | Vessel I.D. | | | | Conduit Connection | | | | | ction: | Note 1 | | | | | | |
| A | Measureme | | | 0 - 4.8 meters | 3 | NDE Test Category: | | | | | TAGE 1 | | | | | | |
| 뜬 | Mounting P | Position: | | Vertical | | | | Ambient Temperature: | | | | | | - | | | |
| | Processs C | Connection: | | 3" Flange 150 | # | | | Manufac | turer: | | | | | Endress+H | auser | | |
| | Connection | Material: | | | | | | Model: | | | | FM | X21- | CD251KGD | 15A PRPS | 3Z1 | |
| | | | | | | | | | | | _ | | | | | | |
| | Function: | | | Transmitter | | | | Approva | l(e): | | | | | CSA | | | |
| œ | Mounting: | | | rransmitter | | | | Mounting | | | | | | Note 1 | | | |
| TRANSMITTER | Enclosure (| Class: | | NEMA 4X | | | | Cable Er | | | | | | 14016 | | | |
| \vdash | Display: | | | None | | | | Power W | | | | | 2 | wire loop p | owered | | |
| SI | Case Mate | rial: | | | | | | Volume | _ | tion: | | | | | | | |
| A | Output: | | | 4-20mA | | | | SS Tag: | | | | | | | | | |
| 뜯 | Communica | ation Protocol: | | | | | | Accurac | y: | | | | | 0.20% | • | | |
| | Range: | | | 0 - 200 kPa | | | | | | | | | | | | | [|
| | | | | | | | | | | | | | | | | | |
| | 1 Cable | ounting Care | JDTI 1/9 IDee/e7 +- | orminal box | | | | | | | | | | | | | |
| | i. Cable-m | ounting-Screw I | NPT!-1/2, IP66/67 te | erminal DUX. | | | | | | | | | | | | | - |
| ES | | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | | | |
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EQUIPMENT DATASHEET PUMP

DATA SHEET NO. REV. DST-P-F0770,P-F0771,P-F0772
SHEET 1 OF 1

| NO. | DATE | REVISION | BY | CHK'D | APPR. |
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| 0 | 2022-05-18 | ISSUED FOR CONSTRUCTION | JP | RC | JS |
| 1 | 2022-07-11 | REISSUED FOR CONSTRUCTION | JP | £ | K |
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NEWPCC PROJECT: INTERIM PHOSPHOROUS REMOVAL

Junction box shall be mounted directly on the skid.

| EQU | IPMENT NO. | P-F07 | 70, P-F0771, P | -F0772 | DESCRIPTION: | FERRIC CHLORIDE METERING PUN | MPS . | |
|----------|--------------------------------|------------|-----------------|--|---------------------------------------|---|--|---------------|
| 0 | Vendor to Verify/Spec | ify | | | | | | Rev. |
| GEN | ERAL | | | | | | | |
| | Number Required: | | | Three (3) | | | | |
| | Type: | | | Gear Type | e Pump | | | |
| | Duty: | | | Continuo | us, Duty/Standby | | | |
| PRO | CESS DATA | | | | | | | |
| | Fluid: | | | Ferric Chl | oride | | | |
| | Corrosive Compounds | : | рН | <1 | | | | |
| | Composition: | | % wt/wt | 37-42% | | | | |
| | Flowing Temperature: | | °C | 20 | | | | |
| | Specific Gravity at Flov | | | 1.39-1.46 | <u> </u> | | | |
| | Viscosity at Flow Temp | | ср | N/A | | | | |
| | Vapor Pressure at Flov | v Temp.: | psia | N/A | | | | \perp |
| HYD | RAULIC DATA | | | | | | | \perp |
| | Condition: | | | | Minimum Flow | <u>Normal Flow</u> | <u>Maximum Flow</u> | \perp |
| | Flow Capacity: | | l/hr | | 8 | 167 | 400 | 1 |
| <u> </u> | Suction Pressure: (Not | e 1) | psig | | 16.7 | 16.7 | 16.7 | \vdash |
| <u> </u> | NPSH Available: | | m | | 4.2 | 4.2 | 4.2 | $\perp \perp$ |
| | Design Cutoff Pressure | | psig | | 100 | 100 | 100 | \perp |
| _ | Design Total Head Red | juired: | m . | | 27 | 27 | 31 | |
| _ | Operating Pressure: | | psig | | 80 | 80 | 80 | |
| _ | NPSH Required: | | m | | 0.6 | 0.6 | 0.6 | |
| 0 | Pump Speed | | rpm | | 300 | 600 | 1750 | + |
| | % of Full Rated Speed | | % | | 17% | 34% | 100% | \perp |
| CON | STRUCTION | | | D) (D.F. | | | | + |
| _ | Casing: | | | PVDF | | | | _ |
| 0 | Connection, flange rat | ing: | | 150# | | | | _ |
| 0 | Packing or Seal: | | | Sealess | -t-fI DTEE | | | _ |
| 0 | Gears: | | | | einforced PTFE | | | \vdash |
| <u> </u> | Impeller Diameter: | Nie . | | N/A | Nasione Dellanta a dan Cali | F12KLEE V | non Continu DO | \vdash |
| 0 | Manufacturer, Model Pump Size: | NO.: | | | 4" (20mm x 20mm) | pse, E12KLEF-X or approved equal as | per Section B8. | +- |
| 0 | Drive Configuration: | | | 1 | | | | +- |
| 0 | Pump Full Speed | | rnm | 1750 | mag drive | | | \vdash |
| DRIV | | | rpm | 1730 | | | | \vdash |
| DKIV | Variable or Constant S | nood | | Variable (| Note 2) | | | +- |
| - | Type: | peeu | | | Outy electric motor | | | +- |
| 0 | Horsepower and RPM | Rating: | hp | 0.5 | July clectife motor | | | +- |
| 0 | Motor Rated Speed | nating. | rpm | 1800 | | | | \vdash |
| Ť | Electric Characteristics | · | , γιιι | | PH / 60 Hz | | | \vdash |
| 0 | Motor Enclosure: | | | TEFC (No | • | | | \vdash |
| Ě | Service Factor: | | | 1.25 | 1 | | | + |
| BASE | <u> </u> | | | | | | | \vdash |
| | | | | Dump cha | all he mounted and fact | tory assembled on triplex skid with all | associated nining and components | \vdash |
| | | | | | | | nemical resistant paint. All backboards | |
| | Base Type: | | | | ting of piping and comp | | iernical resistant paint. All backboards | |
| NOT | | | | lioi illouli | ting or piping and comp | porients shall be TIDI E. | | +- |
| _ | 1 | pendent on | height of fluid | l in the tan | k. Thus, suction pressu | re is subject to change. Noted pressu | re is based on full tank. | \vdash |
| _ | VFD to be provided an | | | | , p. 6554 | project and an extension of coord | | \vdash |
| _ | - ' | | | the Zone | Class, and/or Division a | areas in which the motors are certified | d. | \vdash |
| _ | <u> </u> | | | | | AD-F211-001, 1-0101-MGAD-F025-00 | | \vdash |
| | | | | | F007-001) for additiona | · · · · · · · · · · · · · · · · · · · | , | + |
| 5 | + ' | | | | · · · · · · · · · · · · · · · · · · · | lectrical junction box for connection t | to the process control system. | |
| | | | | | | , | | |



NEWPCC

EQUIPMENT DATASHEET PUMP

REV. DATA SHEET NO. DST-P-F0780,P-F0781 0 SHEET 1 ΩF

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| NO. | DATE | REVISION | BY | CHK'D | APPR. |
| 0 | 2022-05-18 | ISSUED FOR CONSTRUCTION | JP | | |
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PROJECT: INTERIM PHOSPHOROUS REMOVAL EQUIPMENT NO. P-F0780, P-F0781 DESCRIPTION: FERRIC CHLORIDE TRANSFER PUMPS Vendor to Verify/Specify Rev GENERAL Number Required: Gear Type Pump Type: Continuous, Duty/Standby Duty: PROCESS DATA Ferric Chloride Fluid: Corrosive Compounds: рΗ <1 37-42% Composition: % wt/wt Flowing Temperature: °C 20 Specific Gravity at Flow Temp.: 1.39-1.46 Viscosity at Flow Temp.: N/A ср Vapor Pressure at Flow Temp.: N/A psia HYDRAULIC DATA Condition: Minimum Flow **Normal Flow** Maximum Flow I/hr Flow Capacity: 90 1500 1700 Suction Pressure: (Note 1) psig 16.7 16.7 16.7 NPSH Available: 4.2 4.1 4.1 m Design Cutoff Pressure: psig 100 100 100 Design Total Head Required: m 0.2 32 40 Operating Pressure: 80 80 80 psig NPSH Required: 0.6 0.6 0.6 m o Pump Speed rpm 300 1600 1750 o % of Full Rated Speed 17% 91% 100% % CONSTRUCTION Casing: PVDF O Connection, flange rating: o Packing or Seal: Sealless Carbon-reinforced PTFE o Gears: Impeller Diameter: Manufacturer, Model No.: Basis of Design: Pulsafeeder Eclipse, E25NFVF-X or approved equal as per Section B8. O Pump Size: 1"x1" (25mm x 25mm) O Drive Configuration: Seal-less mag drive o Pump Full Speed 1750 rpm DRIVER Variable or Constant Speed Variable (Note 2)

Stand alone frame shall be HSS tubing. Frame shall be painted with chemical resistant paint. All backboards Base Type: for mounting of piping and components shall be HDPE.

575V / 3PH / 60 Hz

TEFC (Note 3)

hp

rpm

1.5

1800

1.25

Inverter duty electric motor

NOTES

BASE

- 1 Suction pressure is dependent on height of fluid in the tank. Thus, suction pressure is subject to change. Noted pressure is based on full tank.
- 2 VFD to be provided and mounted by others.

O Horsepower and RPM Rating:

Electric Characteristics: Motor Enclosure:

Motor Rated Speed

Service Factor:

- 3 Nameplate shall indicate the IP rating and state the Zone, Class, and/or Division areas in which the motors are certified.
- 4 Reference general arrangement drawings (1-0101-MGAD-A001-001, 1-0101-MGAD-F211-001, 1-0101-MGAD-F025-001) and process and instrumentation diagrams (1-0101-PPID-F009-001) for additional information.
- 5 All electrical factory installed components on the skid shall be terminated in an electrical junction box for connection to the process control system. Junction box shall be mounted directly on the skid.

Pump shall be mounted and factory assembled on duplex skid with all associated piping and components.



EQUIPMENT DATASHEET

 DATA SHEET NO.
 REV.

 DST-P-F0830,P-F0831,P-F0832
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| NO. | DATE | REVISION | BY | CHK'D | APPR. |
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| 1 | 2022-07-11 | REISSUED FOR CONSTRUCTION | JP | AF. | JS. |
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PROJECT: INTERIM PHOSPHOROUS REMOVAL

NEWPCC

EQUIPMENT NO. P-F0830, P-F0831, P-F0832 DESCRIPTION: SODIUM HYDROXIDE METERING PUMPS Vendor to Verify/Specify Rev GENERAL Number Required: Three (3) Type: Gear Type Pump Duty: Continuous, Duty/Standby PROCESS DATA Fluid: Sodium Hydroxide Corrosive Compounds: рΗ >14 Composition: % wt/wt 50% Flowing Temperature: °C 20 Specific Gravity at Flow Temp.: 1.53 Viscosity at Flow Temp.: 36.0 Vapor Pressure at Flow Temp.: N/A psia HYDRAULIC DATA Condition: Minimum Flow Normal Flow **Maximum Flow** Flow Capacity: I/hr 400 8 67 Suction Pressure: (Note 1) psig 7.01 7.01 7.01 NPSH Available: m 5.1 5.1 5.1 Design Cutoff Pressure: 100 100 100 psig Design Total Head Required: 27 31 27 m Operating Pressure psig 80 80 80 NPSH Required: m 0.6 0.6 0.6 Pump Speed rpm 300 300 1750 o % of Full Rated Speed % 17% 17% 100% CONSTRUCTION Casing: **PVDF** Connection, flange rating: 150# Sealless o Packing or Seal: 0 Gears: Carbon-reinforced PTFE Impeller Diameter: Basis of Design: Pulsafeeder Eclipse, E12KLEF-X or approved equal as per Section B8. Manufacturer, Model No.: o Pump Size: 3/4" x 3/4" (20mm x 20mm) o Drive Configuration: Seal-less mag drive o Pump Full Speed rpm 1750 DRIVER Variable (Note 2) Variable or Constant Speed Inverter Duty electric motor Horsepower and RPM Rating: hp 0.5 Motor Rated Speed rpm 1800 575V / 3PH / 60 Hz Electric Characteristics: O Motor Enclosure: TEFC (Note 3) Service Factor: 1.25 BASE Pump shall be mounted and factory assembled on triplex skid with all associated piping and components. Stand alone frame shall be HSS tubing. Frame shall be painted with chemical resistant paint. All backboards for mounting of piping and components shall be HDPE. NOTES 1 Suction pressure is dependent on height of fluid in the tank. Thus, suction pressure is subject to change. Noted pressure is based on full tank. 2 VFD to be provided and mounted by others. 3 Nameplate shall indicate the IP rating and state the Zone, Class, and/or Division areas in which the motors are certified. 4 Reference general arrangement drawings (1-0101-MGAD-A001-001, 1-0101-MGAD-F203-001, 1-0101-MGAD-F027-001) and process and instrumentation diagrams (1-0101-PPID-F008-001) for additional information. All electrical factory installed components on the skid shall be terminated in an electrical junction box for connection to the process control system. Junction box shall be mounted directly on the skid.



EQUIPMENT DATASHEET PUMP

 DATA SHEET NO.
 REV.

 DST-P-G0751
 0

 SHEET
 1
 OF
 1

| NO | Э. | DATE | REVISION | BY | CHK'D | APPR. |
|----|----|------------|-------------------------|----|-------|-------|
| C |) | 2022-05-18 | ISSUED FOR CONSTRUCTION | JP | | |
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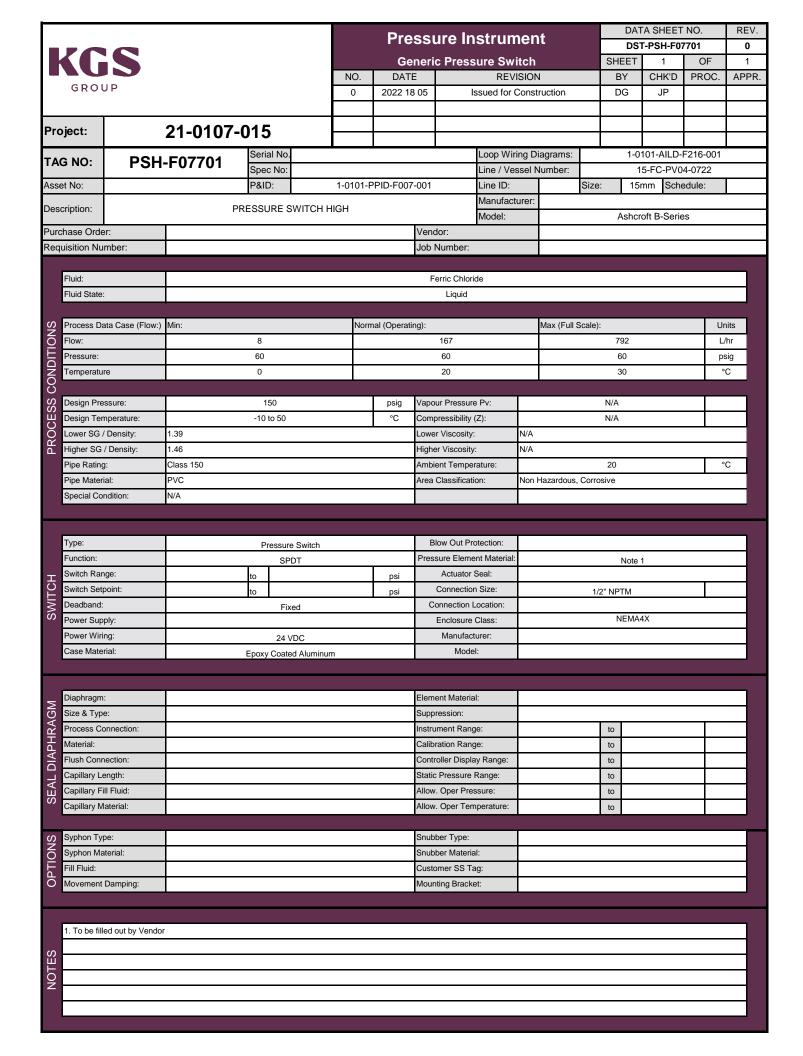
PROJECT: NEWPCC
INTERIM PHOSPHOROUS REMOVAL

| | INTERIM PHOSE | PHOROUS REM | OVAL | | | | | | |
|----------|--|-----------------|--------------|---------------|-----------------|-----------------------------------|--------------------------|--------------------|------|
| EQUI | IPMENT NO. | P-G0751 | | DESCRIPTI | ION: | FERRIC CHLORIDE METERING PU | JMP FOR DP-2.1A/B | | |
| 0 | Vendor to Verify/Specify | | | | | | | | Rev. |
| GENE | ERAL | | | | | | | | |
| | Number Required: | | One (1) | | | | | | |
| | Туре: | | Diaphragn | n | | | | | |
| | Duty: | | Continuo | ıs | | | | | |
| PROC | CESS DATA | | | | | | | | |
| | Fluid: | | Ferric Chlo | oride | | | | | |
| | Corrosive Compounds: | pH | <1 | | | | | | |
| | Composition: | % wt/wt | 37-42% | | | | | | |
| | Flowing Temperature: | °C | 20 | | | | | | |
| | Specific Gravity at Flow Temp.: | | 1.39-1.46 | | | | | | |
| | Viscosity at Flow Temp.: | ср | N/A | | | | | | _ |
| | Vapor Pressure at Flow Temp.: | psia | N/A | | | | | | _ |
| HYDE | RAULIC DATA | | | | -1 | | | | _ |
| | Condition: | 1.0 | | Minimum I | <u>Flow</u> | Normal Flow | Maximum F | <u>-low</u> | _ |
| | Flow Capacity: | l/hr | | - | | 200 | 271 | | |
| | Suction Pressure: (Note 1) | psig | | - | | 1 | 1 20 | | - |
| <u> </u> | NPSH Available: | m | | - | | 21 | 20 | | _ |
| I | Design Cutoff Pressure: Design Total Head Required: | psig | - | - | | 100 25 | 100 25 | | - |
| | | m | | | | | 80 | | + |
| 0 | Operating Pressure: NPSH Required: | psig | | | | 80 | 80 | | _ |
| 0 | Pump Speed | m | | | | | | | + |
| | % of Full Rated Speed | rpm % | | | | - | | | - |
| CONS | STRUCTION | 70 | | | | _ | | | - |
| CON | Casing: | | PVDF | | | | | | - |
| 0 | Connection, flange rating: | | PVDF, DN2 | 25 | | | | | _ |
| 0 | Packing or Seal: | | EPDM/PT | | | | | | _ |
| | Impeller: | | N/A | _ | | | | | _ |
| | Impeller Diameter: | | N/A | | | | | | _ |
| 0 | Manufacturer, Model No.: | | | esign: ProM | linent Sigma 2. | S2CBH07220PVTS070UD81001E | N or approved equal a | s per Section B8. | - |
| Ť | Pump Size: | | N/A | 23.6 | | 323307220. 1.307003310012 | To approved equal a | 5 per 50000011 201 | |
| 0 | Drive Configuration: | | + | ven diaphra | agm | | | | |
| | Pump Full Speed | Strokes/min | 160 | | | | | | |
| DRIV | <u> </u> | | | | | | | | |
| | Variable or Constant Speed | | Variable (I | Note 2) | | | | | |
| | Туре: | | <u> </u> | uty electric | motor | | | | |
| 0 | Power Rating: | W | 220 | | | | | | |
| 0 | Motor Rated Speed | rpm | | | | | | | |
| | Electric Characteristics: | | 120V / 1PI | H / 60 Hz | | | | | |
| 0 | Motor Enclosure: | | TEFC (Not | e 3) | | | | | |
| | Service Factor: | | 1.25 | · · | | | | | |
| BASE | | | | | | | | | |
| | | | Pump sha | ll be mount | ed and factory | assembled on triplex skid with a | all associated piping ar | nd components. | |
| 1 | | | Stand alor | ne frame sh | all be HSS tubi | ng. Frame shall be painted with o | chemical resistant pair | nt. All backboards | for |
| | Base Type: | | mounting | of piping a | nd components | s shall be HDPE. | | | |
| NOT | ES | | | | | | | | |
| | Suction pressure is dependent o | | d in the tar | nk. Thus, su | ction pressure | is subject to change. Noted pres | sure is based on full to | ank. | |
| | VFD to be provided and mounte | | | | | | | | |
| | Nameplate shall indicate the IP I | | | | | | | | |
| 4 | Reference general arrangement | | • | | | | 015-001) | | |
| | and process and instrumentation | <u> </u> | | | | | | | |
| 5 | All electrical factory installed co | | | ll be termin | ated in an elec | trical junction box for connectio | n to the process contr | ol system. | |
| L | Junction box shall be mounted of | | | | | | | | |
| 6 | Pump skid shall be installed on t | | | | | ition Section 40 06 01). | | | |
| L | and connected to remote dosing | g tank, TK-G075 | 50 (Specific | ation Section | on 40 05 01). | | | | |

| | {G | 28 | | | | | | | | strum | | | | ATA SHEET | 801 | REV. |
|----------------|---------------|---|-------------------------|---------------|---------------|-----------|---------------|--------------|------------|--------------|--------------|-------|----------|---------------|--------|---------------|
| | LU | | | | | NO | | | e Ira | nsmitte | | | SHEET | | OF | 1 |
| | GRO | JP | | | | NO. | DATE | | 1- | REVIS | | | BY | CHK'D | PROC. | APPR. |
| | | | | | | 0 | 2022 18 | 105 | IS | sued for C | onstruction | | DG | JP | | 1 |
| | | 1 | | | | | | | | | | | | + | | |
| Pro | oject: | | 21-0107-01 | 5 | H | | | | | | | | | | - | |
| | | | | Serial No: | | | | | 1 | Loop Wiring | Diagrame: | | | 1 | | |
| TA | G NO: | PIT | -F07801 | Spec No: | | | | | | Line / Vesse | | | | 25-FC-PV0 | 4-0732 | |
| Asse | t No: | | | P&ID: | | 1-0101- | PPID-F009- | 001 | | Line ID: | i Number. | Size: | | 15mm Sche | | _ |
| ASSE | t INO. | | | FAID. | | 1-0101-1 | FFID-F009- | JO 1 | | Manufacture | Ar. | Size. | | Siemens | uule. | 1 |
| Desc | ription: | PRESSURE IND | ICATING TRANSMITTI | ER | | | | | - | | 91. | | | | | |
| D | hase Order: | | l | | | | | Vendor: | J | Model: | | | | Sitran P420 | | |
| | | | | | | | | | | | | | | Transwest | | |
| Requ | isition Num | oer: | | | | | | Job Numbe | er: | | | | | | | |
| | | | I= | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | | |
| | Fluid State | | Liquid | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| SN | | | N | /linimum: | | | 1 | Normal (Ope | erating) | : | | Maxir | num (Ful | l Scale): | Ur | nits: |
| 9 | Flow: | | | 90 | | | | 1500 |) | | | | 1700 | | L | /hr |
| | Pressure: | | | 60 | | | | 60 | | | | | 60 | | р | sig |
| CONDITIONS | Temperatu | re: | | 0 | | | | 20 | | | | | 30 | | | °C |
| S | | | | | | | | | | | | | | | | |
| PROCESS | Design Pre | ssure: | | | | psig | Vapor Pres | ssure P | v: | | | N/A | | | | |
| S | Design Ter | sign Pressure: 150 sign Temperature: -10 to 50 ver SG / Density: 1.39 | | | | | °C | Viscosity: | | | | | N/A | | | |
| PR | | | | | | | | Compressi | ibility (Z | <u>'</u>): | | | N/A | | - | |
| | Higher SG | | | 1.46 | | | | Area Class | | | | Non | | us, Corrosive | | |
| | Pipe Rating | | | Class | 150 | | l | Ambient Te | | | | | 20 | ., | - | °C |
| | Pipe Mater | | | PV | | | | Special Co | | | | | N/ | Ά. | | |
| | 1 | | | | | | | | | | | | | | | |
| | | | | | | _ | | | _ | | | _ | _ | | | |
| | Stainless S | teel Tag: | l | | | | | Wetted O-F | Ring Ma | aterial: | N/A | | | | | |
| | Application | | Pressure | | | | | Fill Fluid: | rung m | | Note 2 | | | | | - |
| | Туре: | • | Indincating Transmitte | r | | | | Elevation: | | | 14010 2 | | | | | - |
| | Enclosure | Close: | municating transmitte | ! | | | | | | | | | | | | |
| ~ | | Jiass: | | | | | | Mounting: | D | | | 1 | | | | \rightarrow |
| 岜 | Housing: | | D (1) | | | | | Instrument | | | | | to | | | _ |
| TRANSMITTER | Signal / Pro | | Profibus | | | | | Calibration | | | | | to | | _ | _ |
| ISI | Power Sup | | 24 VDC | | | | | Controller [| | | | | to | | | |
| ΑA | Electrical C | connection: | NPT 1/2 | | | | | Static Pres | | _ | | | to | | | |
| ۲ | Accuracy: | | Note 2 | | | | | Allowable | Press | ure: | | | to | | | |
| | Output at T | x Failure: | | | | | | Operating | Temp | erature: | | | to | | | |
| | Response | | | | | | | DCS Rang | je: | | | | to | | | |
| | Process Co | onn. / Rating: | 1/2" NPT | | | | | Max. Static | Pressi | ure: | | | | | | |
| | Element M | aterial: | | | | | | Supression | n: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manifold Ty | /pe: | | | | | | Max Temp | erature | Rating: | | | | | | |
| MANIFOLD | Body Mate | rial: | | | | | | Process Co | onnecti | on: | | | | | | |
| Ę, | Trim: | | | | | | | Process Co | onnecti | on Rating: | | | | | | |
| MA | Packing: | | | | | | | Manufactur | rer: | | | | | | | |
| | Max Press | ure Rating: | | | | | | Model: | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Diaphragm | | High | | | Low | | Top Housir | ng Mate | erial: | | | | | | |
| ΒS | Size & Typ | э: | 15MM (1/2" N | IPT) | | | | Bottom Ho | using N | Material: | | | | | | |
| RA | Process Co | onnection: | Threaded | | | | | Instrument | Conne | ction: | | | | | | |
| SEAL DIAPHRAGM | Material: | | Note 2 | | | | | Temperatu | ıre Ratii | ng: | | | | | | |
| PIA | Flush Conr | ection: | 8mm (1/4" |) | | | | Pressure R | Rating: | | | | | | | |
| 닏 | | Length: | | | | | | Manufactur | rer: | | | | | | | |
| SE/ | Capillary | Fill Fluid: | | • | | | • | Model: | | | | | | | | |
| | | Material: | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| O | Integral Me | ter: | | | | | | Hydrostatio | c Testin | g: | | | | | | |
| OPTION | Scale: | | | | | | | Mounting E | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1. Manufac | turer and series 4 | vere standarized by the | City via RFP | 449-2014 no a | lternativ | es or substit | ute will he | accente | d. | _ | | | | | |
| | | ed out by Vendor | J Standarized by the | -ny ria INI F | 2017, 110 d | | 01 GUDOUI | 4111 DC 6 | ooopie | | | | | | | |
| Si | 2. 10 De IIII | ou out by venual | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | | |
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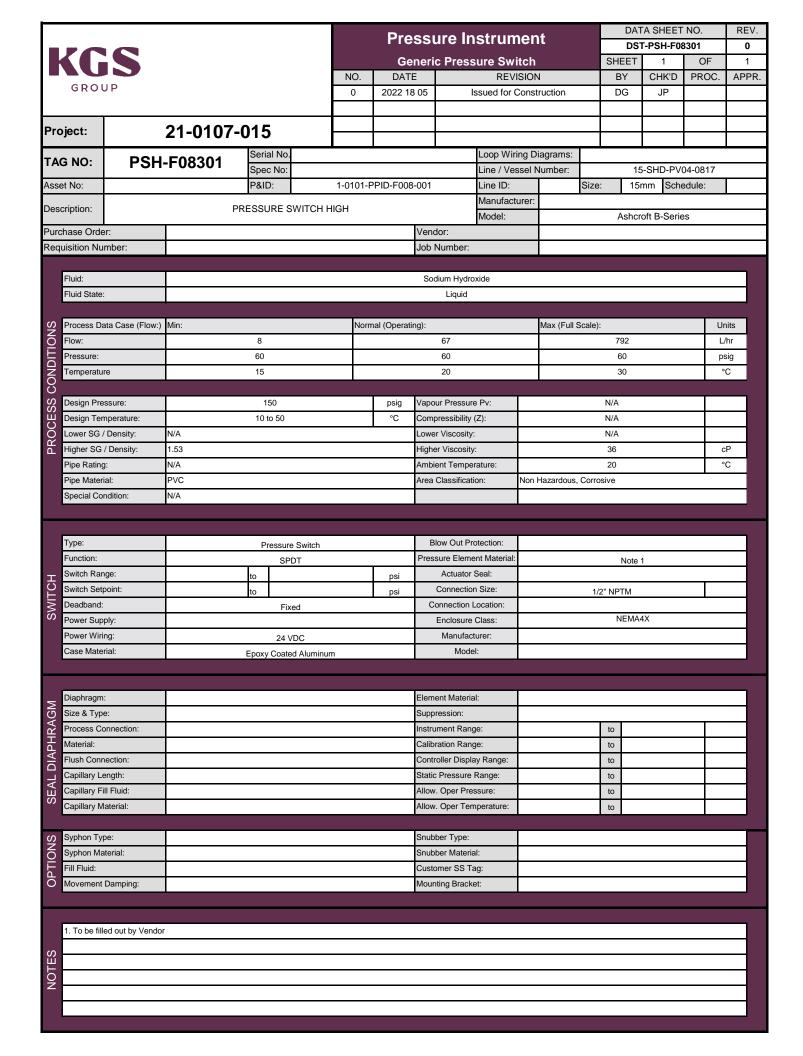
| | {G | 28 | | | | | | | | strum | | | | OST-PIT-F07 | 802 | REV. |
|----------------|--------------|--------------------|-------------------------|--|---------------|------------|---------------|--------------|------------|--------------------------|--------------|-------|---------|---------------|--------|-------|
| | V | | | | | NO | | | e Tra | nsmitte | | | SHEE | | OF | 1 |
| | GRO | J P | | | | NO. | DATE | | | REVIS | | | BY | CHK'D | PROC. | APPR. |
| | | | | | _ | 0 | 2022 18 | 3 05 | Is | sued for C | onstruction | | DG | JP | | |
| | | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107-01 | 15 | - | | | | | | | | | | | |
| | | | | Carial Na | | | | | 1 | Loop Wising | Diagrama | _ | | | | |
| TA | G NO: | PIT | -F07802 | Serial No: | | | | | | Loop Wiring | | | | 25-FC-PV0- | 4.0722 | |
| ۸ | t No. | | | Spec No: | | 1 0101 1 | DDID FOOD | 201 | | Line / Vesse Line ID: | ei Number: | Cina | | | | |
| Asse | t NO: | | | P&ID: | | 1-0101-1 | PPID-F009- | JU1 | | | | Size: | | 15mm Sche | aule: | |
| Desc | ription: | PRESSURE IND | ICATING TRANSMITT | ER | | | | | - | Manufacture | er: | | | Siemens | | |
| D | nase Order: | | 1 | | | | | Vendor: | J | Model: | | | | Sitran P420 | | |
| | | | | | | | | | | | | | | Transwest | | |
| Requ | isition Numl | oer: | | | | | | Job Numb | er: | | | | | | | |
| | EL | | le : 011 :1 | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | | _ |
| | Fluid State: | | Liquid | | | | | | | | | | | | | |
| | | | | | | | | | | | _ | | | | | |
| SN | | | | Minimum: | | | 1 | Normal (Ope | |): | | Maxi | mum (Fu | Il Scale): | | nits: |
| | Flow: | | | 90 | | | | 1500 |) | | | | 1700 | | | /hr |
| Ē | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| CONDITIONS | Temperatu | re: | | 0 | | | | 20 | | | | | 30 | | · · | °C |
| SS | | | | | | | | | | | | | | | | |
| PROCESS | | | | | | | psig | Vapor Pres | ssure P | v: | | | N/A | | | |
| 300 | | - | | | | | °C | Viscosity: | | | | | N/A | | | |
| Ы | | | | | | Compressi | | | | | N/A | | | | | |
| | Higher SG | / Density: | | 1.46 | | | | Area Class | sification | n: | | Non | Hazardo | us, Corrosive | | |
| | Pipe Rating | j : | | | s 150 | | | Ambient Te | empera | iture: | | | 20 | | • | °C |
| | Pipe Mater | ial: | | P\ | VC | | | Special Co | ondition: | : | | | N, | /A | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | | | | | | | Wetted O- | Ring Ma | | N/A | | | | | |
| | Application | : | Pressure | | | | | Fill Fluid: | | | Note 2 | | | | | |
| | Туре: | | Indincating Transmitte | er | | | | Elevation: | | | | | | | | |
| | Enclosure (| Class: | | | | | | Mounting: | | | | | | | - | |
| ER | Housing: | | | | | | | Instrument | | | | | to | | | |
| TRANSMITTER | Signal / Pro | | Profibus | | | | | Calibration | | | | | to | | | |
| ISIV | Power Sup | | 24 VDC | | | | | Controller | | | | | to | | | |
| AN | Electrical C | connection: | NPT 1/2 | | | | | Static Pres | | _ | | | to | | | |
| ۲ | Accuracy: | | Note 2 | | | | | Allowable | Press | ure: | | | to | | | |
| | Output at T | x Failure: | | | | | | Operating | Temp | erature: | | | to | | | |
| | Response | | | | | | | DCS Rang | | | | | to | | | |
| | | onn. / Rating: | 1/2" NPT | | | | | Max. Statio | | ure: | | | | | | |
| | Element Ma | aterial: | | | | | | Supression | n: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | |
| ם | Manifold Ty | | | | | | | Max Temp | | | | | | | | |
| MANIFOLD | Body Mater | rial: | | | | | | Process Co | | | | | | | | |
| Ę | Trim: | | | | | | | Process Co | | on Rating: | | | | | | |
| MA | Packing: | us Deti- | | | | | I | Manufactu | ier: | | | | | | | |
| | Max Pressi | ure Kating: | | | | | | Model: | | | | | | | | _[|
| | | | | | | | | | | | | | | | | |
| | Diaphragm | | High | | | Low | | Top Housin | na Moto | orial: | | | | | | |
| > | Size & Type | | 15MM (1/2" N | NPT) | | LUW | | Bottom Ho | | | | | | | | |
| AG | Process Co | | Threaded | | | | | Instrument | | | | | | | | |
| SEAL DIAPHRAGM | Material: | A III IGGUUII. | Note 2 | | | | | Temperatu | | | | | | | 1 | |
| AP | Flush Conr | ection: | 8mm (1/4 | ") | | | | Pressure F | | ng. | | | | | | |
| ۵ | i iusii Conr | Length: | omm (1/4 | <u>, </u> | | | I | Manufactu | | | | | | | | |
| EA | Capillary | Fill Fluid: | | 1 | | | ı | Model: | .01. | | | | | | | |
| S | Capinary | Material: | | | | | | .viodei. | | | | | | | | |
| | | atoriai. | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| NO | Integral Me | ter: | | | | | | Hydrostatio | c Testin | ıa: | _ | | | | | |
| OPTION | Scale: | | | | | | | Mounting E | | | | | | | | |
| Ö | Jouro. | | | | | | | Gariang E | GONEL | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1. Manufac | turer and series 4 | vere standarized by the | City via RFP | 449-2014 no s | alternativ | es or substit | tute will he | accente | ed. | _ | | | | | |
| | | ed out by Vendor | | Jay VIGINIT | 201-4, 110 6 | | or oursell | ### De c | ooopie | | | | | | | |
| ES | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | | |
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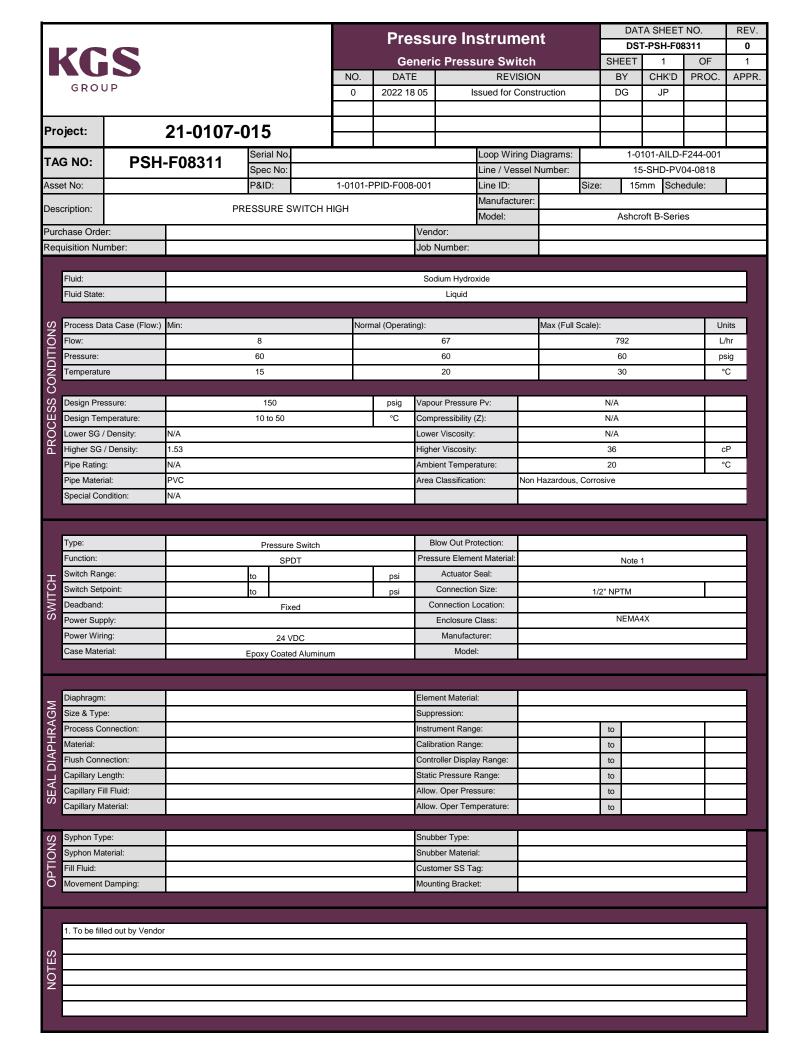
| | {G | 20 | | | | | | strum | | | | ATA SHEET | | REV. | | |
|--------------------|---------------|--------------------|-------------------------|--------------|----------------|------------|---------------|---------------|------------------------|--------------|-------------|-----------|----------|---------------|---------|----------|
| | VU | | | | | | | | ure Tra | ansmitte | | | SHEE | | OF | 1 |
| | GRO | | | | | NO. | DATE | | | REVI | | | BY | CHK'D | PROC. | APPR. |
| | | | | | | 0 | 2022 18 | 3 05 | ls | ssued for C | Constructio | n | DG | JP | | <u> </u> |
| | | ı | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107-01 | 15 | | | - | | | | | | | | | |
| | | | | Serial No: | | | | | | Loop Wiring | n Diagrams: | | | | | |
| TAG | G NO: | PI | Г-F8711 | Spec No: | | | | | | Line / Vess | | | | 25-SEA-CU | 01-0601 | |
| Asset | t No: | | | P&ID: | | 1-0101- | PPID-F002- | 001 | | Line ID: | | Size | | 25mm Sche | | |
| | | | | | | | | | | Manufactur | er: | | | Siemens | | 1 |
| Desc | ription: | PRESSURE IND | DICATING TRANSMITT | EK | | | | | | Model: | | | | Sitran P420 | | |
| Purch | nase Order: | | | | | | | Vendo | r: | | | | | Transwest | | |
| Requ | isition Numl | ber: | | | | | | Job Nu | ımber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | Service Air | | | | | | | | | | | | | |
| | Fluid State: | | Gas | | | | | | | | | | | | | |
| so I | | | | Minimum: | | _ | | Normal | (Operating | 1)- | | May | imum (Fu | II Scale): | 11 | nits: |
| Ž O | Flow: | | | 3.0 | | | | | 5.4 | 1). | | IVIGA | 7.0 | ii Oddic). | | L/s |
| Ė | Pressure: | | | 0 | | + | | | 10 | | | | 100 | | | sig |
| JNO - | Temperatu | re: | | 0 | | + | | | 20 | | | | 30 | | | °C |
| PROCESS CONDITIONS | | | | | | | | | | | | | | | | |
| ËS | Design Pre | ssure: | | 150 | | | psig | Vapor | Pressure F | Pv: | | | N/A | | | |
| 300 | Design Ter | | | | | °C | Viscos | | | | | N/A | | | | |
| HA . | Lower SG / | Density: | | | | | Compr | essibility (2 | Z): | | | 1.00 | | | | |
| ı | Higher SG | / Density: | | 1.00 | | | | Area C | lassificatio | on: | | No | | us, Corrosive | | |
| ı | Pipe Rating | | | | I/A | | | | nt Tempera | | | | 20 | | ۰ | °C |
| 1 | Pipe Mater | ial: | | Coppe | r Type L | | | Specia | l Condition | า: | | | N | /A | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | iteel Tag: | | | | | | Wetter | d O-Ring M | Material: | N/A | | | | | |
| ı | Application | | Pressure | | | | | Fill Flu | | idioridi. | Note 2 | | | | | - |
| ı | Type: | | Indicating Transmitter | | | | | Elevati | | | | | | | | - |
| ı | Enclosure (| Class: | _ | | | | | Mounti | ng: | | | | | | | |
| H. | Housing: | | | | | | | Instrun | nent Range | e: | | | to | | | |
| Ë, | Signal / Pro | otocol: | Profibus | | | | | Calibra | ation Range | e: | | | to | | | |
| SM | Power Sup | ply: | 24 VDC | | | | | Contro | ller Display | y Range: | | | to | | | |
| TRANSMITTER | Electrical C | Connection: | NPT 1/2 | | | | | | Pressure R | | | | to | | | |
| ۴, | Accuracy: | | Note 2 | | | | | Allowa | able Press | sure: | | | to | | | |
| 1 | Output at T | | | | | | | _ | ting | perature: | | | to | | | _ |
| 1 | Response Co | onn. / Rating: | 1/2" NPT | | | | | DCS R | tange: Static Press | | | | to | | | |
| 1 | Element Ma | | 1/2 NF1 | | | | | Supres | | suie. | | | | | | - |
| ı | LIGHTON IN | atoriai. | | | | | | очрто | ,01011. | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manifold Ty | /pe: | | | | | | Max Te | emperature | e Rating: | | | | | | |
| | Body Mater | rial: | | | | | | Proces | s Connect | tion: | | | | | | |
| MANIFOLD | Trim: | | | | | | | | | tion Rating: | | | | | | |
| MA. | Packing: | | | | | | | | acturer: | | | | | | | |
| | Max Pressi | ure Rating: | | | | | | Model: | | | | | | | | |
| | | | | | | | | _ | _ | | | _ | _ | | | |
| | Diaphragm | | High | | | Low | | Тор Но | ousing Mat | terial: | | | | | | |
| M | Size & Type | e: | 15MM (1/2" I | NPT) | | | | Bottom | Housing I | Material: | | | | | - | |
| RAC | Process Co | onnection: | Threaded | d | | | | Instrun | nent Conne | ection: | | | | | | |
| 표 | Material: | | Note 2 | | | | | Tempe | rature Rat | ing: | | | | | | |
| DIA | Flush Conr | nection: | 8mm (1/4 | ") | | | | Pressu | re Rating: | | | | | | | |
| SEAL DIAPHRAGM | | Length: | | | | | | Manufa | acturer: | | | | | | | |
| SE | Capillary | Fill Fluid: | | | | | | Model: | | | | | | | | |
| | | Material: | | | | _ | | | | | | _ | _ | _ | | |
| | | | | | | | | | | | | | | | | |
| NO | Integral Me | ter: | | | | | | Hydros | static Testir | ng: | | | | | | |
| OPTION | Scale: | | | | | | | | ng Bracke | | | | | | | |
| 0 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1. Manufac | turer and series w | vere standarized by the | City via RFP | 449-2014, no a | ılternativ | es or substit | tute will | be accepte | ed. | | | | | | |
| S | 2. To be fill | ed out by Vendor | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | [] |
| ž | | | | | | | | | | | | | | | | [] |
| | | | | | | | - | | | | | | | | | —[] |
| | | | | | | | | | | | | | | | | |

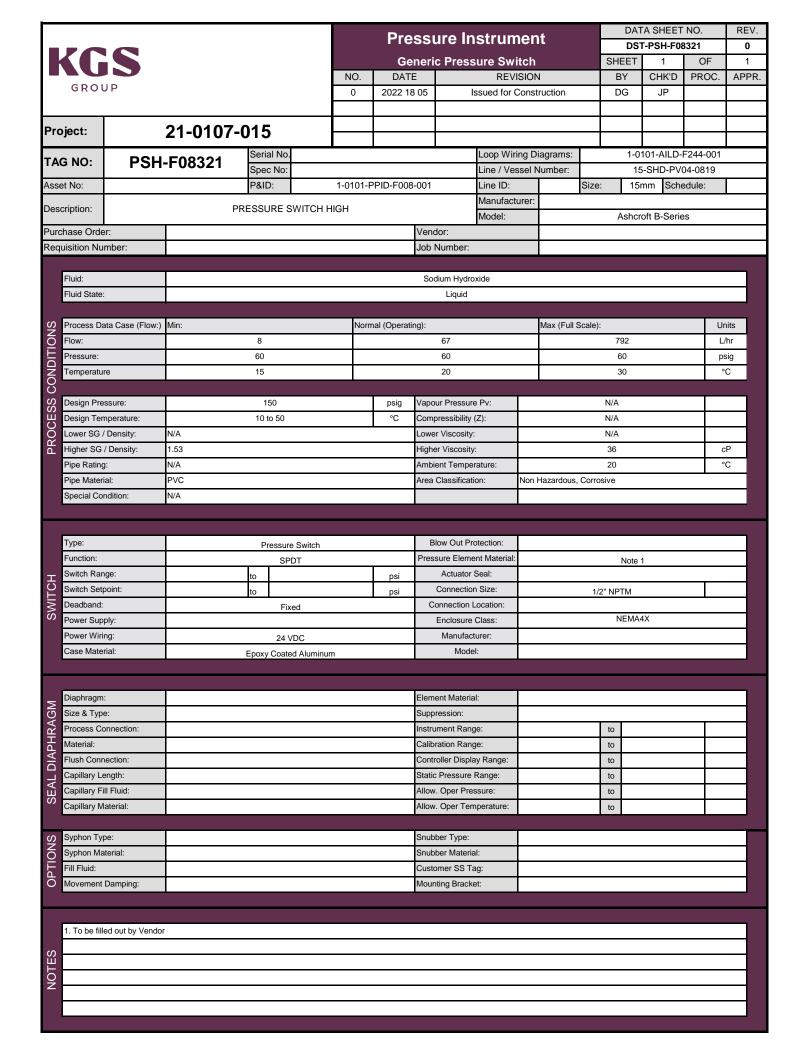


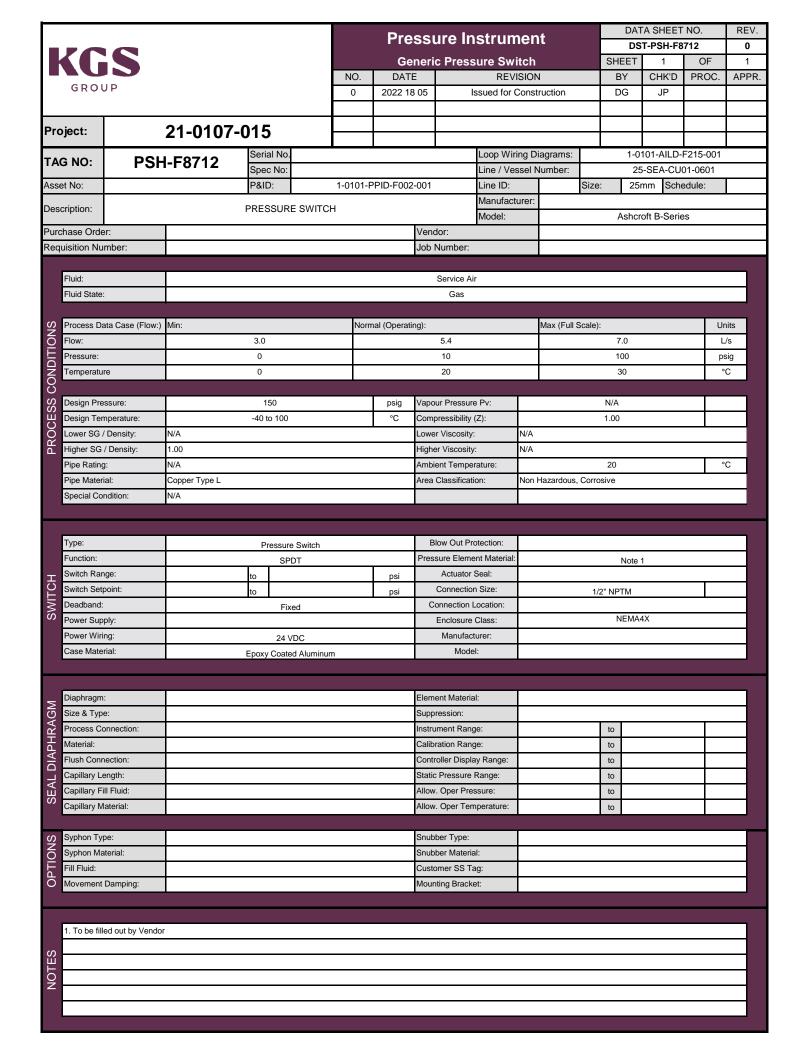
| | | | | | | Des | | l | | 4 | | DAT | A SHEET | NO. | REV. | |
|------------------------|--|--|----------|---------------|-------------------|---------|--------------|---|--|---------|-------------|----------------|----------|-------------|----------|-----------|
| | - | | | | | | Pre | ssure | Instrun | nen | t | | DST | Γ-PSH-F07 | 7711 | 0 |
| | (G | | | | | | Ge | neric Pre | ssure Sw | itch | | SH | IEET | 1 | OF | 1 |
| | | | | | | NO. | DAT | E | REV | ISION | I | E | 3Y | CHK'D | PROC. | APPR. |
| | GROU | JP | | | | 0 | 2022 1 | 3 05 | Issued for (| Const | ruction | |)G | JP | | |
| | | | | | | | | | | | | | | | | |
| <u> </u> | | | 04 0407 | 04 F | | | | | | | | | | | | |
| Pro | ject: | | 21-0107- | บาว | | | | | | | | | | | | |
| ΤΛ/ | NO: | Den | -F07711 | Serial | l No. | | | | Loop Wir | ring Di | agrams: | | 1-01 | 101-AILD-I | F217-001 | |
| IA | J NO. | ГОП | | Spec | No: | | | | Line / Ve | ssel N | lumber: | | 1: | 5-FC-PV0 | 4-0723 | |
| Asse | t No: | | | P&ID: | : | 1-0101 | -PPID-F007 | '- 001 | Line ID: | | | Size: | 15r | mm Sche | edule: | |
| Desc | rintion: | | | PRESS | SURE SWITC | CH | | | Manufact | turer: | | | | | | |
| 2000 | ription. | | | TILLO | OUNE OWING | <i></i> | | | Model: | | | | Ashcr | oft B-Serie | s . | |
| | | | | | | | | Vendor: | | | | | | | | |
| Requ | uisition Nui | mber: | | | | | | Job Numbe | er: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | Ferric Ch | | | | | | | | |
| | Fluid State: | | | | | | | Liqu | id | | | | | | | |
| | | | 1 | | | | | | | | | | | | | |
| SNS | | ata Case (Flow:) | win: | • | | No | rmal (Operat | | | | Max (Full S | , | 700 | | | nits |
| | | | | | | | | 167 | | | | | 792 | | | /hr |
| CONDITIONS | | 70 | | | | | | 20 | | | | | 60 30 | | _ | sig 'C |
| Ö | Temperatur | re | | | | | 20 | | | | | 30 | | | C | |
| SC | Decise Dre | | | .0 | | naia | Vanaur Drag | ouro Du | | | N/A | | | | | |
| ES6 | rription: PRESSURE SW hase Order: Jisition Number: Fluid: Fluid: Fluid State: Process Data Case (Flow:) Min: Flow: Pressure: Flow: Flo | | | | | | psig °C | Vapour Pres Compressibi | | | | N/A N/A | | | | _ |
| PROCESS | Process Data Case (Flow:) Min: | | | | | | C | Lower Viscos | | N/A | | IN/A | ` | | | |
| RC | Temperature 0 Design Pressure: 150 Design Temperature: -10 to 50 Lower SG / Density: 1.39 Higher SG / Density: 1.46 Pipe Rating: Class 150 Pipe Material: PVC Special Condition: N/A | | | | | | | Higher Visco | | N/A | | | | | | - |
| щ | | | | | | | Ambient Ten | | 1071 | | 20 | | | ۰ | C | |
| | | Design Temperature: -10 to 50 ower SG / Density: 1.39 ligher SG / Density: 1.46 Class 150 Pipe Rating: Class 150 PVC Special Condition: N/A | | | | | | Area Classifi | | Non H | Hazardous, | | | | | |
| | | | | | | | | | | | | | | | _ | |
| | | ressure: 60 emperature 0 resign Pressure: 150 esign Temperature: -10 to 50 esign Temperature: -10 to 50 per SG / Density: 1.39 gher SG / Density: 1.46 per Rating: Class 150 per Material: PVC precial Condition: N/A Pressure Switch anction: SPDT witch Range: to said and service seadband: Fixed | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Туре: | | | essure Switch | | | Blow Out | Protection: | | | | | | | | |
| | | | | Pre | | | | | Protection: ement Material: | | | | Note 1 | 1 | | \exists |
| I | Function: | ige: | | | | | psi | Pressure Ele | | | | | Note 1 | 1 | | 7 |
| тсн | Function: Switch Ran | <u> </u> | | to | | | psi psi | Pressure Ele | ement Material: | | | 1/2" NF | | 1 | | |
| WITCH | Function: Switch Ran Switch Setp | point: | | to | SPDT | | | Pressure Ele Actua Connec | ement Material: tor Seal: | : | | | PTM | | | |
| SWITCH | Function: Switch Ran Switch Setp Deadband: | point: | | to | SPDT | | | Pressure Ele Actua Connection | ement Material: tor Seal: ction Size: | | | | | | | |
| SWITCH | Function: Switch Ran Switch Setp Deadband: Power Supp | point: | | to | SPDT Fixed | | | Actua Connecti Connection | ement Material: tor Seal: ction Size: on Location: | | | | PTM | | | |
| SWITCH | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirin | point: | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connecti Connecti Enclose Manu | ement Material: tor Seal: ction Size: on Location: ure Class: | | | | PTM | | | |
| SWITCH | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirin | point: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Connecti Enclose Manu | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: | | | | PTM | | | |
| SWITCH | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wiril Case Mater | ply: ng: rial: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Connecti Enclose Manu | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: | | | | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Sup Power Wirit Case Mater | ply: ng: rial: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclosi Manu M | ement Material: ttor Seal: ction Size: on Location: ure Class: facturer: odel: | | | | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type | ply: ng: rial: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclosi Manu M Element Mat Suppression | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: | | | 1 | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirit Case Mater Diaphragm: Size & Type Process Cc | ply: ng: rial: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : tange: | | | to | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Cc Material: | popint: ply: ng: rial: : ponnection: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : tange: tange: | | | to | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Cc Material: Flush Conn | poly: ply: ply: rial: : : : : : : : : : : : : : : : : : : | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : : : : : : : : : : : : : : : : : : | | | to to to | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Cc Material: Flush Conn Capillary Le | popoint: ply: ng: rial: : ee: connection: eection: ength: | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connectic Enclosi Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu | ement Material: ttor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : tange: tange: splay Range: ure Range: | | | to to to to | PTM | | | |
| SEAL DIAPHRAGM SWITCH | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirit Case Mater Diaphragm: Size & Type Process Cc Material: Flush Conn Capillary Le Capillary Fi | point: ply: ply: prial: : : : : : : : : : : : : | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connectic Enclosi Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressi | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : tange: tange: splay Range: ure Range: Pressure: | | | to to to to to | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Cc Material: Flush Conn Capillary Le | point: ply: ply: prial: : : : : : : : : : : : : | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connectic Enclosi Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressi | ement Material: ttor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : tange: tange: splay Range: ure Range: | | | to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirin Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M | ply: ng: rial: : : : : : : : : : : : : : : : : : : | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Presse Allow. Oper | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : lange: lange: splay Range: ure Range: Temperature: | | | to to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M | ply: ply: ng: rial: : ee: onnection: eection: ength: Il Fluid: aterial: | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connectic Enclosi Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressi | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : tange: tange: splay Range: ure Range: Pressure: Temperature: | | | to to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirin Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M | ply: ply: ng: rial: : ee: onnection: eection: ength: Il Fluid: aterial: | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connecti Enclosi Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressi Allow. Oper | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: : :ange: tange: splay Range: ure Range: Pressure: Temperature: | | | to to to to to | PTM | | | |
| | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirit Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M Syphon Typ Syphon Ma | popoint: ply: ng: rial: : ee: connection: ength: Il Fluid: aterial: coe: tterial: | | to to | SPDT Fixed 24 VDC | JIM | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Presst Allow. Oper Allow. Oper | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp. Deadband: Power Suppl Power Wirin Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary M Syphon Typ Syphon Ma Fill Fluid: | popoint: ply: ng: rial: : ee: connection: ength: Il Fluid: aterial: coe: tterial: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp. Deadband: Power Suppl Power Wirin Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary M Syphon Typ Syphon Ma Fill Fluid: | popoint: ply: ng: rial: : ee: connection: ength: Il Fluid: aterial: coe: tterial: | | to to | SPDT Fixed 24 VDC | JM | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M Syphon Typ Syphon Ma Fill Fluid: Movement | popoint: ply: ng: rial: : ee: connection: ength: Il Fluid: aterial: coe: tterial: | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| OPTIONS SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M Syphon Typ Syphon Ma Fill Fluid: Movement | popoint: ply: ply: ply: ply: ply: ply: ply: pl | | to to | SPDT Fixed 24 VDC | um | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| OPTIONS SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M Syphon Typ Syphon Ma Fill Fluid: Movement | popoint: ply: ply: ply: ply: ply: ply: ply: pl | | to to | SPDT Fixed 24 VDC | ım | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| OPTIONS SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M Syphon Typ Syphon Ma Fill Fluid: Movement | popoint: ply: ply: ply: ply: ply: ply: ply: pl | | to to | SPDT Fixed 24 VDC | JM | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |
| SEAL DIAPHRAGM | Function: Switch Ran Switch Setp Deadband: Power Supp Power Wirhi Case Mater Diaphragm: Size & Type Process Co Material: Flush Conn Capillary Le Capillary Fi Capillary M Syphon Typ Syphon Ma Fill Fluid: Movement | popoint: ply: ply: ply: ply: ply: ply: ply: pl | | to to | SPDT Fixed 24 VDC | JM | | Pressure Ele Actua Connecti Enclose Manu M Element Mat Suppression Instrument R Calibration R Controller Di Static Pressu Allow. Oper Allow. Oper Snubber Typ Snubber Mat Customer St | ement Material: tor Seal: ction Size: on Location: ure Class: facturer: odel: erial: tange: tange: splay Range: ure Range: Pressure: Temperature: ee: terial: S Tag: | | | to to to to to | PTM | | | |

| | | | | | | Date | | | -4 | | | DA | ΓΑ SHEET | NO. | REV. | |
|------------------|--|------------------|----------|-------|----------------|--------|--------------|---------------|---------------|--------------|---------------|---------|----------|-------------|----------|-------|
| | | | | | | | Pre | 255 | ure in | strum | ent | | DS | T-PSH-F0 | 7721 | 0 |
| K | | | | | | | Ge | eneri | ic Press | ure Swit | ch | | SHEET | 1 | OF | 1 |
| | | | | | | NO. | DAT | E | | REVIS | ION | | BY | CHK'D | PROC. | APPR. |
| | GROU | J P | | | | 0 | 2022 1 | 8 05 | l; | ssued for Co | onstruction | | DG | JP | | |
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| | | | 04 0407 | 045 | | | | | | | | | | | | |
| Proje | ect: | | 21-0107- | 015 | | | | | | | | | | | | |
| | NO | DOLL | F07704 | Seria | al No. | | | | | Loop Wirin | g Diagrams: | | 1-0 | 101-AILD- | F218-001 | |
| TAG | NO: | PSH- | -F07721 | Spec | c No: | | | | | Line / Vess | el Number: | | 1 | 5-FC-PV0 | 4-0724 | |
| Asset I | No: | | | P&IE | D: | 1-0101 | -PPID-F007 | 7-001 | | Line ID: | | Size | : 15 | mm Sch | edule: | |
| | | | | DDEC | OUDE OWITO | | | | | Manufactur | er: | | | | | |
| Descri | iption: | | | PRES | SURE SWITC | Н | | | | Model: | | | Ashcı | oft B-Serie | es | |
| Purcha | ase Orde | r: | | | | | | Ven | dor: | | | | | | | |
| Requis | sition Nur | mber: | | | | | | Job | Number: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| FI | luid: | | | | | | | F | erric Chlori | de | | | | | | |
| FI | luid State: | | | | | | | | Liquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| <u>ω</u> Pr | rocess Da | ta Case (Flow:) | Min: | | | No | rmal (Operat | ing): | | | Max (Full | Scale): | | | U | nits |
| 6 FI | low: | | | 8 | | | | | 167 | | | | 792 | | L | _/hr |
| E PI | ressure: | | | 60 | | | | | 60 | | | | 60 | | р | sig |
| CONDITIONS | emperatur | е | | | | | | 20 | | | | 30 | | | °C | |
| 8 | | | | | | | | | | | | | | | | |
| SS | esign Pres | ssure: | 50 | | psig | Vapo | our Pressure | e Pv: | | | N/A | | | | | |
| PROCESS ELF P | Pressure: 60 Temperature 0 Design Pressure: 150 Design Temperature: -10 to 50 Lower SG / Density: 1.39 Higher SG / Density: 1.46 Pipe Rating: Class 150 Pipe Material: PVC Special Condition: N/A | | | | | | °C | Com | pressibility | (Z): | | | N/A | | | |
| 00 1 | Flow: 8 Pressure: 60 Temperature 0 Design Pressure: 150 Design Temperature: -10 to 50 Lower SG / Density: 1.39 Higher SG / Density: 1.46 Pipe Rating: Class 150 Pipe Material: PVC Special Condition: N/A Type: Pressure Switc Function: SPDT | | | | | | | Lowe | er Viscosity: | : N | I/A | | | | | |
| H H | Pressure: 60 Temperature 0 Design Pressure: 150 Design Temperature: -10 to 50 Lower SG / Density: 1.39 Higher SG / Density: 1.46 Pipe Rating: Class 150 Pipe Material: PVC Special Condition: N/A Type: Pressure Switc SPDT | | | | | | | High | er Viscosity | : N | I/A | | | | | |
| Pi | ipe Rating | : | | | | Amb | ient Tempe | rature: | | | 20 | | | °C | | |
| Pi | Design Pressure: 150 Design Temperature: -10 to 50 Design Tempera | | | | | | | Area | Classificati | on: N | lon Hazardous | , Corro | sive | | | |
| Sp | pecial Cor | ndition: | | | | | | | | | | | | | | |
| _ | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Ty | уре: | | | Pr | essure Switch | | | Е | Blow Out Pro | otection: | | | | | | |
| Fu | unction: | | SPDT | | | Pres | sure Eleme | ent Material: | | | Note | 1 | | | | |
| I S | witch Ran | ge: | | to | | | psi | | Actuator | Seal: | | | | | | |
| SWITCH | witch Setp | oint: | | to | | | psi | | Connection | n Size: | | 1/: | 2" NPTM | | | |
| N D | eadband: | | | | Fixed | | | C | Connection L | _ocation: | | | | | | |
| ω _{Po} | ower Supp | oly: | | | | | | | Enclosure | Class: | | | NEMA | 4X | | |
| Po | ower Wirir | ng: | | | 24 VDC | | | | Manufact | turer: | | | | | | |
| C | ase Mater | ial: | | Ероху | Coated Aluminu | m | | | Mode | l: | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| ≥ Di | iaphragm: | | | | | | | | nent Materia | ıl: | | | | | | |
| 7 - | ize & Type | | | | | | | | ression: | | | | | | • | |
| ¥ Pi | rocess Co | nnection: | | | | | | _ | ument Rang | | | | to | | | |
| 鱼 | faterial: | | | | | | | _ | oration Rang | | | | to | | | |
| F C | lush Conn | | | | | | | | roller Displa | | | | to | | | |
| T C | apillary Le | | | | | | | _ | c Pressure | | | | to | | | |
| E C | apillary Fil | | | | | | | | v. Oper Pres | | | | to | | | |
| C | apillary Ma | aterial: | | | | | | Allov | v. Oper Tem | nperature: | | | to | | | |
| | | | | | | | | | | | | | | | | |
| S | yphon Typ | | | | | | | | ber Type: | | | | | | | |
| | yphon Ma | terial: | | | | | | ber Materia | | | | | | | | |
| | ill Fluid: | l Fluid: | | | | | | | omer SS Ta | - | | | | | | |
| ОМ | lovement l | Damping: | | | | Mou | nting Bracke | et: | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| ļ , | | | | | | | | | | | | | | | | |
| 1. | . To be fille | ed out by Vendor | | | | | | | | | | | | | | |
| S | | | | | | | | | | | | | | | | |
| Ш | | | | | | | | | | | | | | | | |
| — | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| TON | | | | | | | | | | | | | | | | |









| | | | | | EQUIDA4 | ENT DATACUEET | DA | TA SHEET | NO. | REV. | |
|---------------|--------------|---------------------------------------|----------------|--------------------|---------------------|---|-----------------|---------------|------------------|-----------|------|
| | | | | _ | EQUIPM | ENT DATASHEET | DST-P-Y0 | 791,P-Y079 | 92,P-Y0793 | 0 | |
| | | | KGS | <u> </u> | | PUMP | SHEET | 1 | OF | 1 | |
| | | | GROUP | NO | D. DATE | REVISION | | BY | CHK'D | APPR. | |
| | | | GROOP | 0 | 2022-05-18 | ISSUED FOR CONSTRUCTION | | JP | | | |
| | | | | | | | | | | | |
| | OJECT: | NE | WPCC | | | | | | | | |
| PK | OJECT: | INTERIM PHOSP | HOROUS REM | OVAL | | | | | | | |
| EQUI | PMENT NO | . P-Y07 | 91, P-Y0792, P | -Y0793 DESCI | RIPTION: | FERRIC CHLORIDE METERING PI | UMPS FOR DE | P-4.1, 4.2, 4 | 1.3 | | |
| 0 | Vendor to | Verify/Specify | | | | | | | | | Rev. |
| GENE | RAL | | | | | | | | | | |
| | Number Re | equired: | | Three (3) | | | | | | | |
| | Туре: | | | Solenoid-driven | diaphragm | | | | | | |
| | Duty: | | | Continuous | | | | | | | |
| | ESS DATA | | | | | | | | | | |
| | Fluid: | | | Ferric Chloride | | | | | | | |
| | | Compounds: | pH | <1 | | | | | | | |
| - | Composition | | % wt/wt | 37-42% | | | | | | | |
| | | mperature: avity at Flow Temp.: | °C | 20 1.39-1.46 | | | | | | | |
| | • | avity at Flow Temp.: t Flow Temp.: | cn | 1.39-1.46 N/A | | | | | | | |
| - | | sure at Flow Temp.: | cp psia | N/A | | | | | | | |
| | AULIC DAT | | Paia | 14/7 | | | | | | | |
| | Condition: | | | Minimi | ım Flow | Normal Flow | M | aximum Fl | ow | | |
| - | Flow Capac | city: | l/hr | | - | 30 | <u></u> | 30 | <u></u> | | |
| | | essure: (Note 1) | psig | | - | 1 | | 1 | | | |
| $\overline{}$ | NPSH Avail | · · · | m | | - | 21 | | 21 | | | |
| | Design Cut | off Pressure: | psig | | - | 100 | | 100 | | | |
| | Design Tota | al Head Required: | m | | - | 0 | | 0 | | | |
| | Operating | Pressure: | psig | | | 80 | | 80 | | | |
| | NPSH Requ | | m | | - | | | | | | |
| | Pump Spee | | Strokes/min | | - | 200 | | 200 | | | |
| | % of Full Ra | ated Speed | % | | - | 100% | | 100% | | | |
| | TRUCTION | | | | | | | | | | |
| | Casing: | | | PVDF | | | | | | | |
| | | n, flange rating: | | PVDF, DN10 | | | | | | | |
| $\overline{}$ | Packing or | Seal: | | PTFE | | | | | | | |
| - | Impeller: | | | N/A N/A | | | | | | | |
| | Impeller Di | rer, Model No.: | | · | ProMinent Camma | XL, GXLAUS0730PVT2Q000UD0 | 120EN or an | nroved equ | ial as per Secti | on BQ | |
| | Pump Size: | | | N/A | TOWNING GAINING | 1 AL, GALAU30/30FV12Q0000DC | TOUCIA OL AP | proveu equ | aai as pei secti | UII Bo. | |
| | Drive Confi | | | Solenoid-driven | dianhragm | | | | | | |
| - | Pump Full S | <u> </u> | Strokes/min | 200 | ларттавтт | | | | | | |
| DRIVE | <u> </u> | | 20.0000/111111 | | | | | | | | |
| _ | | Constant Speed | | Variable (Note 2) | | | | | | | |
| - | Type: | эросо | | Inverter duty ele | | | | | | | |
| - | | er Consumption: | w | 78 | | | | | | | |
| | Motor Rate | | rpm | | | | | | | | |
| | | aracteristics: | | 120V / 1PH / 60 F | Hz | | | | | | |
| | Motor Encl | | | TEFC (Note 3) | | | | | | | |
| | Service Fac | tor: | | 1.25 | | | | | | | |
| BASE | | | | | | | | | | | |
| | | | | Pump shall be mo | ounted and factor | y assembled on simplex skid wit | h all associate | ed piping a | nd component | ts. Stand | |
| | | | | l . | - | ame shall be painted with chem | ical resistant | paint. All b | ackboards for | mounting | |
| _ | Base Type: | | | of piping and con | nponents shall be | HDPE. | | | | | |
| NOTE | | | | | | | | | | | |
| | | | | in the tank. Thus | , suction pressure | is subject to change. Noted pre | ssure is based | on full tai | nk. | | |
| | | provided and mounted | | 4b - 7 C' | | and the condition of the condition of the | £: _ J | | | | |
| | | | | | | eas in which the motors are certi | пеа. | | | | |
| - | | | | | | -0101-MGAD-Y001-001) | | | | | |
| | <u> </u> | s and instrumentation | | | | | on to the pre- | race contra | al system | | |
| | | ox shall be mounted di | | | mmateu m an ele | ctrical junction box for connection | on to the pro | ress coutt | n system. | | |
| - | | | | | ot system (Specific | ration Section 40 06 01). | | | | | |
| | | cted to remote dosing | • | | | acion occion 40 00 01). | | | | | |
| | and connec | acca to remote dosing | Carin 11 10730 | (Specification 36) | 0 03 01). | | | | | | |

| | | | | | | | | Cont | rol V | alve | | | | TA SHEET | | REV. |
|----------------|---------------------------|------------------|---------------------|--------------------|--------------|----------------|-------------|-------------------------|---------------|--------------|-------------|-------|-------------|--------------|----------|-------|
| | 7 | | | | | | | | | | | | | ST-XV-F87 | | 0 |
| | ⟨ G | | | | | | | | all Valv | | | | SHEET | 1 | OF | 1 |
| _ | GROU | | | | | NO. | DAT | | | REVIS | | | BY | CHK'D | PROC. | APPR. |
| | GROU |) P | | | | 0 | 2022-0 | 5-18 | Iss | ued for Co | onstruction | | JP | RC | RIC | Ril |
| | | | | | | | | | | | | | | | | |
| Pr | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| • • • | ojeot. | | 21 0107 | 0.0 | | | | | | | | | | | | |
| ТΔ | G NO: | Υ\ | /-F8700 | Serial No: | | | | | Lo | oop Wiring | Diagrams: | | 1- | 0101-AILD-I | F201-001 | |
| | 0 110. | | | Spec No: | | | | | Li | ine / Vessel | Number: | | | Existing R | ailcar | |
| Asse | et No: | | | P&ID: | | 1-0101-l | PPID-F001- | -001 | Li | ine ID: | | Size: | | mm Sche | dule: | 80 |
| Desi | cription: | | | MOTORIZED | ΒΔΙΙ \/ΔΙ' | VE | | | M | lanufacture | r: | | R | OTORK | | |
| Desi | STIPHOTT. | | | WOTORIZED | DALL VAL | V L | | | M | lodel: | | | IC | T Series | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | Rotork Cor | ntrols Canad | da Ltd. | |
| Req | uisition Numb | ber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | | Chloride | | | | | | | |
| | Fluid State: | | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| ည | | | | Minimum: | | | ı | Normal (Op | | | | Maxi | mum (Full S | Scale): | | nits: |
| <u>S</u> | Flow: | | | 3.0 | | | | 5.4 | | | | | 7.0 | | L | /s |
| E | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| CONDITIONS | Temperatur | re: | | 0 | | | | 20 |) | | | | 30 | | | С |
| | | | | | | | | | | | | NV: | | | | |
| ESS | Design Pre | | | | | psig | Vapour Pr | | | | | N/A | | | | |
| PROCESS | Design Ten | | 1.00 | | | °C | Compress | | | 1/4 | | N/A | | | _[] | |
| PR | Lower SG / | | 1.39 | | | | Lower Vis | | | I/A | | | | | _[| |
| | Higher SG | | 1.46 | | | | Higher Vis | | | I/A | | | | | _ | |
| | Pipe Rating | | Class 150 PVC | | | | Ambient T | | | | | 20 | | | C | |
| | Pipe Materi | | | | | Area Clas | ssification | : N | lon Hazardous | , Corro | sive | | | _ | | |
| | Special Cor | ndition: | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Value Tone | | | D-III | V-L- | | | V- | . D | | | | 450 | | | |
| ≿ | Valve Type | : | | | Valve | | | Maximum | | | | | 150 | | p | sig |
| BODY | Body Size: | dati. | | | mm | | | Inlet Conr | | | | | Flange | | | |
| Ш | Body Mater Bonnet Styl | | | | VC I/A | | | Flange Fa Lubricatio | | | | | Flat Fa | ce | | |
| VALVE | ANSI Class | | | | 50 | | | | | uon: | | | EPDM or | \/itaa | | _ |
| > | Ball Materia | | | | VC | | | Packing N Packing S | | | | | EFDIWI OI | VIIOII | | |
| | Ball Waterie | | | | | | | r donning c | otylo: | | | | | | | _ |
| - | | | | | | | | | _ | | | _ | | | | |
| | Manufactur | er: | | Che | mline | | | Shaft Mat | terial: | | | | PVC | : | | |
| | Model: | | | Type 21 True U | Jnion Ball V | alve | | Stem Mat | terial: | | | | PVC | : | | |
| ≥ | Size: | | | 80 | mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| TRIM | Rated Cv: | | | 4 | 10 | | | Ball Mater | rial: | | | | PVC | : | | |
| | Characteris | stic: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Actuator De | escription: | | Motoriz | ed Valve | | | Size: | | | | | 125 | | | |
| | Manufactur | er: | | ROT | ORK | | | Mounting | Position: | | | | | | | |
| Ж | Model: | | | IQT S | Series | | | Actuator 0 | | | | | Parall | el | | |
| 2 | Direction: | | | | | | | Stroke Tin | me Open: | : | | | | | | s |
| Ŋ | Fail Position | n: | | Fail Las | t Position | | | Stroke Tin | me Close | : | | | | | | s |
| ACTUATOR | Operating S | | | | | | | Torque/Th | hrust | | | | 125 | | | lm |
| ⋖ | | Voltage: | 120 | V | | 1 | Ph | Pneu- | Air Sup | | Min | | M | lax | Units | |
| | Electrical Operation | FLA: | | | | | Α | matic | Pressu | | N/A | | N | I/A | Psig | |
| | | LRA: | | | | | Α | Operation | Bench I | Range: | | N | I/A | | Psig | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | teel Tag: | | | 8700 | | | | landwhee | | | | Yes | | | |
| S | Positioner: | | | | 1 0 | | | | Switch Cl | | | | Yes | | | |
| NC | Air Set: | | | | lo . | | | | t Switch O | | | | Yes | | | |
| OPTIONS | Gauges: | | | | No . | | | | lenoid Val | | | | No | 2 | | _[|
| Р | Bypass: | | | | No . | | | | al Classif | | | | Note | 2 | | _[|
| | Pilot Light: | D | | | 10 | | | Bad | ckup Pow | er: | | | No | | | _[|
| | Marshalling | Rox: | L | N | No. | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 4.3/ | a fill in | and a second for | landa # : | | | | | | | | | | | | |
| | | | e relevant informat | uon in empty field | 1. | | | | | | | | | | | -[|
| S | | X, non-hazardou | | nd by the City | DED 224 0 | 114 50 54 | rnates as | ıhetitutee | will bo as- | ented | | | | | | -[|
| NOTES | J. IVIALIUIACI | urer driu models | s were standardize | o by the Olly via | INI 1 331-20 | J 1→, IIU ali@ | mates Of St | apoututes W | will be acc | opieu. | | | | | | |
| ž | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | Cont | rol Valv | ^ | | DAT | A SHEET | NO. | REV. |
|--------------------|-------------------------|-------------------|----------------------------|-------------------------|---------------|-----------------|--------------|--------------------|--------------|--------------|-----------------|------------------|----------|---------|
| | | | | | | | Cont | ioi vaiv | - | | DS | ST-XV-F87 | /02 | 0 |
| | (G | | | | | | Ва | all Valve | | | SHEET | 1 | OF | 1 |
| | | | | | NO. | . DAT | E | RE ¹ | VISION | | BY | CHK'D | PROC. | APPR. |
| | GRO | UP | | | 0 | 2022-0 | 5-18 | Issued for | Constr | ruction | JP | RC | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107- | -015 | | | | | | | | | | |
| | | | | Serial No: | | | l l | Loop Wir | ina Diaa | ırams. | 1-1 | 1 0101-AILD-I | F204-001 | |
| TΑ | G NO: | XV | ′-F8702 | Spec No: | | | | Line / Ve | | | | 80-FC-PV0 | | |
| Λοος | t No: | | | P&ID: | 1.010 | 01-PPID-F004 | 001 | Line ID: | Joor Hun | | | mm Sche | | 80 |
| 7336 | it No. | | | I GID. | 1-010 | 01-1110-100- | | Manufact | | | | OTORK | dule. | 00 |
| Desc | ription: | | | MOTORIZED BALL | VALVE | | | Model: | urer. | | | | | |
| <u> </u> | | | 1 | | | | N / | Model: | | | | T Series | 1-14-1 | |
| | hase Order: | | | | | | Vendor: | | | | Rotork Cor | ntrols Canad | Ja Ltd. | |
| Requ | uisition Num | iber: | | | | | Job Numb | per: | | | | | | |
| | | | ' | | | | | | | | | | | |
| | Fluid: | | | | | | | Chloride | | | | | | |
| | Fluid State | e: | | | | | L | iquid | | | | | | |
| | | | | | | | | | | | | | | |
| S | | | | Minimum: | | | Normal (Op | perating): | | N | Maximum (Full S | scale): | Un | its: |
| NO | Flow: | | | 3.0 | | | 5.4 | ! | | | 7.0 | | L | /s |
| ΞE | Pressure: | | | 60 | | | 60 | 1 | | | 60 | | Ps | sig |
| N | Temperatu | ire: | | 0 | | | 20 | | | | 30 | | ۰ | С |
| S | | | | | | | | | | | | | | |
| SS | Design Pre | essure: | | 150 | | psig | Vapour P | ressure Pv: | | | N/A | | | |
| B | Design Ter | mperature: | | -10 to 50 | | °C | Compress | sibility (Z): | | | N/A | | \neg | |
| PROCESS CONDITIONS | Lower SG | / Density: | 1.39 | | | • | Lower Vis | scosity: | N/A | | | | | |
| ┙ | Higher SG | / Density: | 1.46 | | | | Higher Vi | scosity: | N/A | | | | | |
| | Pipe Rating | g: | Class 150 | | | | Ambient 7 | Temperature: | | | 20 | | • | С |
| | Pipe Mater | | PVC | | | | Area Clas | ssification: | Non H | lazardous, C | Corrosive | | | |
| | Special Co | | N/A | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Valve Type | a· | ı | Ball Valve | | | Maximum | Pressure: | | | 150 | | l ns | sig |
| 7 | Body Size: | | | 80mm | | | | nection Face: | | | Flange | nd. | | ,19 |
| 301 | | | | PVC | | | | | | | | | | |
| VALVE BODY | Body Mate | | | | | | _ | ace Finish: | | | Flat Fa | ce | | |
| ΓN | Bonnet Sty | | | N/A | | | | on & Isolation: | | | 50011 | | | |
| ۸A | ANSI Class | | | 150 | | | Packing N | | | | EPDM or | Viton | | |
| | Ball Materi | ial: | | PVC | | | Packing S | Style: | | | | | | |
| | | | | | | | | | | | | | | |
| | | | ' | | | | | | | | | | | |
| | Manufactu | rer: | | Chemline | | | Shaft Mat | | | | PVC | | | |
| | Model: | | | Type 21 True Union E | Ball Valve | | Stem Mat | | | | PVC | | | |
| TRIM | Size: | | | 80mm | | | Seal Mate | | | | EPDM or | | | |
| ⊭ | Rated Cv: | | | 410 | | | Ball Mate | rial: | | | PVC | | | |
| | Characteris | | | | | | Leakage | Class: | | | | | | |
| | Trim Type: | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Actuator D | escription: | | Motorized Val | ve | | Size: | | | | 125 | | | |
| | Manufactu | rer: | | ROTORK | | | Mounting | Position: | | | | | | |
| Ϋ́ | Model: | | | IQT Series | | | | Orientation: | | | Paralle | el | | |
| 10 | Direction: | | | | | | Stroke Tir | me Open: | | | | | | s |
| Π | Fail Position | on: | | Fail Last Positi | on | | Stroke Tir | me Close: | | | | | | s |
| ACTUATOR | Operating | Sig: | | | | | Torque/Ti | hrust | | | 125 | | N | m |
| Ā | | Voltage: | 120 | V | 1 | Ph | Pneu- | Air Supply | | Min | M | ax | Units | |
| | Electrical Operation | FLA: | | | | Α | matic | Pressure: | | N/A | N | /A | Psig | |
| | Орогалог | LRA: | | | | А | Operation | Bench Range: | | | N/A | | Psig | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | | XV-F8702 | | | Н | landwheel: | | | Yes | | | |
| | Positioner: | : | | No | | | Limit | Switch Closed: | | | Yes | | | |
| S۱ | Air Set: | | | No | | | Limit | Switch Open: | | | Yes | | | |
| Ō | Gauges: | | | No | | | | enoid Valve: | | | No | | | |
| OPTIONS | Bypass: | | | No | | | | al Classification: | | | Note: | 2 | | |
| 0 | Pilot Light: | | | No | | | | ckup Power: | | | No | | | |
| | Marshalling | | | No | | | Dat | ap . 01101. | | | 140 | | | |
| | | g 20m. | | 140 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | 4 1/ | te Cillia | and a second to the second | an in any test | | | | | | | | | | |
| | | | relevant informati | on in empty field. | | | | | | | | | | |
| S | | X, non-hazardou | | | 0.4.05:: | | | | | | | | | |
| NOTES | 3. Manufac | cturer and models | were standardized | d by the City via RFP 3 | 31-2014, no a | alternates or s | ubstitutes w | viii be accepted. | | | | | | |
| 9 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | I | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol V | /alve | | | | TA SHEET | | REV. |
|----------------|-------------------------|--|---------------------|---------------------|--------------|--------------|--------------|--------------|---------------|--------------|------------|-------|-------------|--------------|----------|-------|
| | 7 | | | | | | | | | | | | | ST-XV-F87 | | 0 |
| | ⟨C | | | | | | | | all Val | | | | SHEET | 1 | OF | 1 |
| | GROU | | | | | NO. | DAT | | | REVIS | | | BY | CHK'D | PROC. | APPR. |
| | GROU | ,,, | | | | 0 | 2022-0 | 5-18 | Iss | ued for Co | nstruction | | JP | RC | RIC | RU |
| | | | | | | | | | | | | | | | | |
| Dr | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| Г | ojeci. | | 21-0107 | -013 | | | | | | | | | | | | |
| - ^ | O NO | VI | , F0700 | Serial No: | | • | • | • | L | oop Wiring | Diagrams: | | 1-0 | 0101-AILD-I | F205-001 | • |
| IA | G NO: | λ. | /-F8703 | Spec No: | | | | | L | ine / Vessel | Number: | | | 80-FC-PV0 | 4-0747 | |
| Asse | et No: | | | P&ID: | | 1-0101-l | PPID-F004- | -001 | Li | ine ID: | | Size: | 80 | mm Sche | dule: | 80 |
| | | | | | | | | | N | 1anufacture | r: | | R | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | VE | | | N | lodel: | | | IC | T Series | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | Rotork Cor | ntrols Canad | da Ltd. | |
| Req | uisition Numb | per: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | 1 | | | | | | |
| | Fluid State: | | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | Minimum: | _ | | | Normal (Op | perating): | _ | | Maxi | mum (Full S | Scale): | Ur | nits: |
| SN | Flow: | | | 3.0 | | | | 5.4 | | | | | 7.0 | | L | /s |
| 음 | Pressure: | | | 60 | | | | 60 |) | | | | 60 | | p | sig |
| CONDITIONS | Temperatur | re: | | 0 | | 1 | | 20 | | | | | 30 | | | C. |
| Ö | | | · | | | | | | | | | | | | | |
| | Design Pres | esign Temperature: -10 to 50 | | | | | psig | Vapour Pi | ressure P | Pv: | | | N/A | | | |
| CES | | asign Temperature: -10 to 50 wer SG / Density: 1.39 | | | | | °C | Compress | | | | | N/A | | | |
| PROCESS | | | 1.39 | | | | Lower Vis | | | I/A | | | | ı | | |
| 풉 | | | 1.46 | | | | Higher Vis | | | I/A | | | | | | |
| | Pipe Rating | | Class 150 | | | | Ambient T | | | - | | 20 | | | °C | |
| | Pipe Materia | | | | | Area Clas | | | Ion Hazardous | Corro | | | | _ | | |
| | Special Cor | | | | | | | | | , | | | | | | |
| | opoolal ool | nation: | N/A | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Valve Type: | : | | Ball | Valve | | | Maximum | Pressure | a: | | | 150 | | p | sig |
| Δ | Body Size: | • | | | mm | | | Inlet Conn | | | | | Flange | ed | | 9 |
| BODY | Body Materi | ial: | | | VC | | | Flange Fa | | | | | Flat Fa | | | |
| Ē | Bonnet Style | | | | I/A | | | Lubricatio | | | | | - idi i d | | | |
| VALVE | ANSI Class | | | | 50 | | | Packing N | | | | | EPDM or | Viton | | |
| > | Ball Materia | | | | VC | | | Packing S | | | | | | | | |
| | | | | | | | | , a | , | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manufacture | er: | | Che | mline | | | Shaft Mat | terial: | | | | PVC | | | |
| | Model: | | | Type 21 True U | Jnion Ball V | 'alve | | Stem Mat | terial: | | | | PVC | : | | |
| ≥ | Size: | | | 80 | mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| TRIM | Rated Cv: | | | 4 | 10 | | | Ball Mater | rial: | | | | PVC | : | | |
| | Characteris | tic: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Actuator De | escription: | | Motoriz | ed Valve | | | Size: | | | | | 125 | | | |
| | Manufacture | er: | | ROT | TORK | | | Mounting | Position: | | | | | | | |
| œ | Model: | | | IQT S | Series | | | Actuator 0 | Orientatio | n: | | | Paralle | el | | |
| ō | Direction: | | | | | | | Stroke Tir | me Open: | : | | | | | | s |
| Έ | Fail Position | n: | | Fail Las | t Position | | | Stroke Tir | me Close | : | | | | | | s |
| ACTUATOR | Operating S | Sig: | | | | | | Torque/Th | hrust | | | | 125 | | N | ١m |
| ₹ | | Voltage: | 120 | V | | 1 | Ph | Pneu- | Air Sup | ply | Min | | M | lax | Units | , |
| | Electrical Operation | FLA: | | | | | Α | matic | Pressu | re: | N/A | | N | l/A | Psig | |
| | | LRA: | | | | | Α | Operation | Bench | Range: | | N | I/A | | Psig | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | 1 |
| | Stainless St | teel Tag: | | XV-F | 8703 | | | Н | landwhee | d: | | | Yes | | | |
| | Positioner: | | | N | No | | | Limit S | Switch CI | osed: | | | Yes | | | |
| SZ | Air Set: | | | N | No | | | Limit | t Switch C | pen: | | | Yes | | | |
| OPTIONS | Gauges: | | | N | No | | | Sole | lenoid Val | lve: | | | No | | | |
| DP. | Bypass: | | | | No | | | Electrica | cal Classif | ication: | | | Note: | 2 | | |
| 0 | Pilot Light: | | | N | No | | | Bad | ckup Pow | ver: | | | No | | | |
| | Marshalling | Box: | | | No | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1. Vendor to | o fill in or provide | e relevant informat | tion in empty field | i. | | | | | | | | | | | |
| | 2. NEMA 4X | X, non-hazardou | s area. | | | | | | | | | | | | | |
| NOTES | 3. Manufact | turer and models | s were standardize | ed by the City via | RFP 331-20 | 014, no alte | rnates or su | ubstitutes w | will be acc | epted. | | | | | | |
| 0 | | | | | | | | | | | | | | | | |
| Z | | _ | | | | | | | | | | | | | | |
| | l | - | - | | | | | | | | - | | | | | |

| | | | | | | | | Cont | rol Va | alve | | | | A SHEET | | REV. |
|----------------|---------------|---|-------------------------------|---------------------|------------|-----------------|-------------|----------------|---------------------------------------|--------------|-----------|-------|-------------|-------------|----------|-------|
| | 7 | | | | | | | | | | | | | ST-XV-F87 | | 0 |
| | ⟨ G | | | | | | | | all Valve | | | | SHEET | 1 | OF | 1 |
| _ | GROU | | | | | NO. | DAT | | | REVISIO | | | BY | CHK'D | PROC. | APPR. |
| | GROU | UP | | | | 0 | 2022-0 | 5-18 | Issue | d for Con | struction | | JP | RC | RIC | RU |
| | | • | | | | | | | | | | | | | | |
| Đ۳ | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| • • • | ojeci. | | 21-0107 | -013 | | | | | | | | | | | | |
| Τ. | C NO. | VI | / F0704 | Serial No: | | | | | Loo | p Wiring Di | agrams: | | 1-0 | 0101-AILD-I | F206-001 | |
| IA | G NO: | ^\ | /-F8704 | Spec No: | | | | | Line | e / Vessel N | lumber: | | | 80-FC-PV0 | 4-0705 | |
| Asse | et No: | | | P&ID: | | 1-0101-l | PPID-F004- | 001 | Line | D: | | Size: | 801 | mm Sche | dule: | 80 |
| | | | | | | | | | Mar | nufacturer: | | | R | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | VE | | | Mod | del: | | | IQ | T Series | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | Rotork Cor | trols Canad | da Ltd. | |
| Req | uisition Numl | ber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | | | | | | | |
| | Fluid State: | : | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | Minimum: | _ | | | Normal (Op | perating): | _ | | Maxi | mum (Full S | cale): | Ur | nits: |
| SN | Flow: | | | 3.0 | | | | 5.4 | | | | | 7.0 | - | L | /s |
| 읟 | Pressure: | | | 60 | | | | 60 | 1 | | | | 60 | | p | sig |
| ᅙ | Temperatur | ire: | | 0 | | | | 20 | | | 1 | | 30 | | | C. |
| CONDITIONS | | | <u> </u> | | | | | | | | + | | | | | |
| | Design Pre | essure: | | | psig | Vapour Pr | ressure Pv: | | | | N/A | | | | | |
| PROCESS | | | | | | °C | | sibility (Z): | | | | N/A | | | | |
| õ | | | 1.39 | | | | Lower Vis | | N/A | | | | | l l | | |
| F | | | 1.46 | | | | Higher Vis | | N/A | | | | | | | |
| | | esign Temperature: -10 to 50 ower SG / Density: 1.39 gher SG / Density: 1.46 pe Rating: Class 150 pe Material: PVC oecial Condition: N/A | | | | | | | Temperature | | | | 20 | | | C C |
| | | | | | | Area Clas | • | | n Hazardous, | Corro | | | l l | _ | | |
| | | | | | | 7 ii ou oiuo | | 110. | · · · · · · · · · · · · · · · · · · · | 000 | | | | _ | | |
| | Special Col | multion. | IVA | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Valve Type | o. | | Rall ' | Valve | | | Maximum | Pressure: | | | | 150 | | n | sig |
| \leq | Body Size: | | | | mm | | | | nection Face | ۵. | | | Flange | ıd | P | sig |
| BODY | Body Mater | | | | VC | | | | ace Finish: | ь. | | | Flat Fa | | | |
| Ш | Bonnet Styl | | | | I/A | | | | n & Isolatio | n: | | | i iat i a | ue . | | |
| VALVE | ANSI Class | | | | 50 | | | Packing N | | | | | EPDM or | Viton | | |
| > | Ball Materia | | | | VC | | | Packing S | | | | | LI DIVI OI | VILOIT | | |
| | Ball Waterie | u. | | | | | | r doning c | J.y.io. | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manufactur | rer: | | Cher | mline | | | Shaft Mat | terial: | | | | PVC | | | |
| | Model: | 101. | | Type 21 True U | | alvo | | Stem Mat | | | | | PVC | | | |
| 5 | Size: | | | | mm | aive | | Seal Mate | | | | | EPDM or | Viton | | |
| TRIM | Rated Cv: | | | | 10 | | | Ball Mater | | | | | PVC | VILOIT | | |
| - | Characteris | stic. | | | 10 | | | Leakage (| | | | | 1 10 | | | |
| | Trim Type: | | | | | | | Leakage | Ciass. | | | | | | | |
| | тин турс. | | | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | | | | |
| | Actuator De | escription: | | Motoriza | ed Valve | | | Size: | | | | | 125 | | | |
| | Manufactur | | | | ORK | | | Mounting | Position: | | | | .20 | | | |
| ~4 | Model: | | | | Series | | | | Orientation: | | | | Paralle | el | | |
| ACTUATOR | Direction: | | | | | | | Stroke Tir | | | | | . 3.011 | | | s |
| A | Fail Positio | on: | | Fail Last | t Position | | | Stroke Tir | | | | | | | | s |
| Ë | Operating S | | | 30 | | | | Torque/Th | | | | | 125 | | | lm . |
| AC | | Voltage: | 120 | V | | 1 | Ph | | Air Supply | , | Min | | | ax | Units | |
| | Electrical | FLA: | | | l | | A | Pneu- matic | Pressure: | | N/A | | | /A | Psig | _ |
| | Operation | LRA: | | | | | A | Operation | Bench Ra | inge: | | N | I/A | | Psig | _ |
| | | | | | | | | | | go: | | | | | 9 | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | | XV-F | 8704 | | | Н | landwheel: | | | | Yes | | | |
| | Positioner: | | | | 10 | | | | Switch Clos | ed: | | | Yes | | | |
| SN | Air Set: | | | | lo lo | | | | Switch Ope | | | | Yes | | | |
| ō | Gauges: | | | | 10 10 | | | | enoid Valve | | | | No | | | |
| OPTIONS | Bypass: | | | | 40 40 | | | | al Classifica | | | | Note 2 | 2 | | |
| 0 | Pilot Light: | | | | No No | | | | ckup Power | | | | No | | | |
| | Marshalling | | | | 40 40 | | | Dat | | | | | 140 | | | |
| | | , | | '' | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1 Vandor | to fill in or provide | e relevant informat | tion in empty field | | | | | | | | | | | | |
| | | | | aon in empty neio | | | | | | | | | | | | |
| S | | X, non-hazardou | s area. s were standardize | nd by the City via | RED 324 0/ | 014 no olto | rnates or c | ihetitutee | vill be acce | sted | | | | | | |
| NOTES | J. Mariurdo | Auror and models | roro stariudiuiZe | a by the Olly vid | 551-20 | , i -, iio aiie | iu.co UI Sl | | be accep | | | | | | | |
| ž | — | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol V | /alve | | | | A SHEET | | REV. |
|------------|---|----------------|-----------|----------------|------------------|--------------|--------------|--------------------|--------------------|--------------|--------------|--------|----------------|------------|----------|-------|
| | KGS | | | | | | | | | | | | | ST-XV-F87 | | 0 |
| | ••• | GROUP | | | | | | | all Valv | | | | SHEET | 1 | OF | 1 |
| _ | | | | | | NO. | DAT | | | REVISI | | | BY | CHK'D | PROC. | APPR. |
| | GROU | 7 P | | | | 0 | 2022-0 | 5-18 | Issi | ued for Co | nstruction | | JP | RC | RIC | RIC |
| | | | | | | | | | | | | | | | | |
| Đ۲ | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| г., | oject. | | 21-0107 | -013 | | | | | | | | | | | | |
| Τ. | O NO: | VI | , 50705 | Serial No: | | • | • | • | Lo | oop Wiring I | Diagrams: | | 1-0 | 0101-AILD- | F207-001 | • |
| IA | G NO: | XV | /-F8705 | Spec No: | | | | | Li | ine / Vessel | Number: | | | 80-FC-PV0 | 4-0705 | |
| Asse | et No: | | | P&ID: | | 1-0101- | PPID-F004- | -001 | Li | ine ID: | | Size: | 801 | mm Sche | edule: | 80 |
| | | | | | | | | | М | lanufacturer | r: | | R | OTORK | | I. |
| Desc | cription: | | | MOTORIZED | BALL VAL | VE | | | M | lodel: | | | IQ | T Series | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | Rotork Con | | da Ltd. | |
| | uisition Numb | per: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | | | | | | | |
| | Fluid State: | | | | | | | | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | Minimum: | | | | Normal (Op | perating): | | | Maxi | mum (Full S | cale): | Ur | nits: |
| NS | Flow: | | | 3.0 | | | | 5.4 | | | | | 7.0 | | | /s |
| 9 | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| Ē | Temperatur | re: | | 0 | | | | 20 | | | | | 30 | | | C. |
| CONDITIONS | | | | | | | | | | | | | | | | |
| | Design Pres | ssure: | | 150 | | | psig | Vapour Pr | ressure P | v: | | | N/A | | | |
| SES | Design Ter | | | -10 to 50 | | | °C | Compress | | | | | N/A | | | |
| PROCESS | Lower SG / | | 1.39 | 10 10 30 | | | | Lower Vis | | | I/A | | . 4/1 | | | |
| PR | Higher SG / | | 1.46 | | | | | Higher Vis | | | //A | | | | | |
| | | | Class 150 | | | | | Ambient T | | | //A | | 20 | | | ·C |
| | Pipe Rating | | PVC | | | | | | | | on Hazardous | Corre | | | | |
| | Pipe Materia | | | | | | | Area Clas | ssincation | : IN | on nazardous | , Conc | sive | | | |
| | Special Cor | naition: | N/A | | | | | | | | | | | | | _ |
| _ | | | | | | | | | | | | | | | | |
| | Value Tona | | | D-II | \ | | | V- | D | | | | 450 | | | |
| ≿ | Valve Type: Ball Body Size: 8(| | | | | | Maximum | | | | | 150 | | p | sig | |
| BODY | Body Size: | | | | mm | | | Inlet Conr | | | | | Flange | | | |
| Ш | Body Mater | | | | VC | | | Flange Fa | | | | | Flat Fa | ce | | |
| \leq | Bonnet Styl | | | | I/A | | | Lubricatio | | tion: | | | | | | |
| VALVE | ANSI Class | | | | 50 | | | Packing N | | | | | EPDM or | Viton | | |
| | Ball Materia | ai: | | Р | VC | | | Packing S | style: | | | | | | | |
| _ | | | | | | | | | | | | | | | | |
| | Manufactur | | | 01 | mline | | | Ob of Mar | ta da b | | | | D) (O | | | _ |
| | Manufacture | er: | | | | | | Shaft Mat | | | | | PVC | | | |
| _ | Model: | | | Type 21 True l | | aive | | Stem Mat | | | | | PVC EPDM or | | | |
| TRIM | Size: | | | | mm | | | Seal Mate | | | | | | | | |
| F | Rated Cv: | dia. | | 4 | 10 | | | Ball Mater | | | | | PVC | | | |
| | Characteris | auc: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| _ | | | | | | | | | | | | | | | | |
| | A at water De | a a single and | | Materia | - 11/-1 | | | 0: | | | | | 405 | | | |
| | Actuator De Manufacture | | | | ed Valve TORK | | | Size: | Desitions | | | | 125 | | | |
| | | er: | | | | | | Mounting | | | | | D | . 1 | | |
| OR | Model: Direction: | | | IQT | Series | | | Actuator C | | | | | Paralle | 21 | | |
| ACTUATOR | | 0. | | E-ni | t Docitic - | | | Stroke Tin | | | | | | | | s |
| 5 | Fail Position | | | Fall Las | t Position | | | Stroke Tin | | | | | 105 | | | S |
| Ç | Operating S | | 120 | V | 1 | 4 | Ph | Torque/Th | | | Min | | 125 | ax | | √m |
| _ | Electrical | Voltage: | 120 | V | | 1 | | Pneu- | Air Sup Pressur | | | | | | Units | _ |
| | Operation | FLA: | | | | | A | matic Operation | . — | | N/A | | | /A | Psig | _ |
| | | LRA: | | | | | Α | -1 | Bench I | Range: | | N | I/A | | Psig | |
| | | | | | | | | | | | | | | | | |
| | Challete | teel To | | | 0705 | | | | land d | 1. | | | ., | | | |
| | Stainless S | teel lag: | | | 8705 | | | | landwheel | | | | Yes | | | |
| ഗ | Positioner: | | | | No . | | | | Switch Cl | | | | Yes | | | |
| S | Air Set: No | | | | | | Switch O | | | | Yes | | | | | |
| OPTIONS | | Gauges: | | | No . | | | | enoid Val | | | | No | | | |
| Р | | Bypass: No | | | | | | | al Classif | | | | Note 2 | 2 | | |
| | Pilot Light: No | | | | | | Bad | ckup Pow | er: | | | No | | | | |
| | Marshalling Box: No | | | No | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | |
| ſΩ | 2. NEMA 4X, non-hazardous area. | | | | | | | | | | | | | | | |
| Ĕ | 3. Manufacturer and models were standardized by the City via RFR | | | | | 014, no alte | rnates or su | ubstitutes w | vill be acc | epted. | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| _ | | | | | | | | | | | | | | | | |
| | | | | | - | | | | | - | | | | - | | |

| | | | | | | | | Cont | rol Va | lve | | | | A SHEET | | REV. |
|------------|---|------------|-----------|----------------|---------------|-------------|--------------|-----------------------|-------------------------|-------------|-------------|------------|-------------|-------------|-------------------------|-------|
| | 7 | | | | | | | | | | | | | ST-XV-F87 | | 0 |
| | KGS GROUP | | | | | | | | all Valve | | | | SHEET | 1 | OF | 1 |
| _ | | | | | | NO. | DAT | | | REVISIO | | | BY | CHK'D | PROC. | APPR. |
| | GROC | J P | | | | 0 | 2022-0 | 5-18 | Issued | for Cons | truction | | JP | RC | RIC | RIC |
| | | | | | | | | | | | | | | | | |
| Pro | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| | ojeot. | | 21 0107 | 0.0 | | | | | | | | | | | | |
| TΛ | G NO: | Υ\ | /-F8706 | Serial No: | | | | | Loop | Wiring Dia | ngrams: | | 1-0 | 0101-AILD-I | F208-001 | |
| 17 | 5 NO. | Α, | 7-1 0700 | Spec No: | | | | | Line | / Vessel Nu | umber: | | | 50-FC-PV0 | 4-0716 | |
| Asse | t No: | | | P&ID: | | 1-0101-F | PPID-F007- | 001 | Line | ID: | | Size: | 501 | mm Sche | dule: | 80 |
| Desc | ription: | | | MOTORIZED | BALL VALV | /E | | | Manu | ufacturer: | | | R | OTORK | | |
| Desc | приоп. | | | WOTOKIZED | DALL VALV | /L | | | Mode | el: | | | R | OMPak | | |
| Purcl | hase Order: | | | | | | | Vendor: | | | | | Rotork Cor | trols Canad | da Ltd. | |
| Requ | isition Numb | ber: | | | | | | Job Numb | oer: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | | Chloride | | | | | | | |
| | Fluid State: | : | | | | | | Li | iquid | | | | | | | _ |
| | | | | | | | | | | | | | | | | |
| 2 | | | | Minimum: | | | | Normal (Op | | | | Maxir | mum (Full S | icale): | | nits: |
| ₫ | Flow: | | | 8 | | | | 167 | | | | | 792 | | | /hr |
| PI | Pressure: | | | 60 | | | | 60 | | | - | | 60 | | | sig |
| CONDITIONS | Temperatur | ie: | L | 0 | | | | 20 | | | L | | 30 | | ئطے | С |
| | Desire S | | | 4=0 | | | | Ver | | | | | NI/C | | | |
| ES | Design Pre | | | 150 | | | psig | | ressure Pv: | | | | N/A | | $-\!\!\!\!+\!\!\!\!\!-$ | + |
| PROCESS | Design Ten Lower SG / | | 1.39 | -10 to 50 | | | °C | Compress Lower Vis | | N/A | | | N/A | | | -[|
| PR | Higher SG / | | 1.46 | | | | | | | N/A N/A | | | | | | - |
| | Pipe Rating | | Class 150 | | | | | Higher Vis | Femperature: | | | | 20 | | | С |
| | Pipe Materi | | PVC | | | | | Area Clas | | | Hazardous, | Corro | | | | |
| | Special Cor | | N/A | | | | | 7 tica Olas | isinication. | 14011 | riazaraous, | 00110 | 3140 | | | _ |
| | Special Col | nation. | IV/A | | | | | | | | | | | | | _ |
| | | | | | | | | | | | | | | | | |
| | Valve Type | ·· | | Rall ' | Valve | | | Maximum | Pressure: | | | | 230 | | n. | sig |
| Δ | Valve Type: Ball V Body Size: 50m | | | | | | | nection Face: | | | | Female Thr | eaded | P | J. IS | |
| BODY | Body Mater | | | | /C | | | | ace Finish: | | | | N/A | | | |
| Ē | Bonnet Styl | | | | /A | | | | n & Isolation | : | | | | | | |
| VALVE | ANSI Class | | | 1: | 50 | | | Packing M | //aterial: | | | | EPDM or | Viton | | |
| > | Ball Materia | al: | | P | /C | | | Packing S | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manufactur | rer: | | Che | mline | | | Shaft Mate | erial: | | | | PVC | | | |
| | Model: | | | Type 21 True U | Jnion Ball Va | alve | | Stem Mate | erial: | | | | PVC | | | |
| TRIM | Size: | | | 50 | mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| ¥ | Rated Cv: | | | 1 | 90 | | | Ball Mater | rial: | | | | PVC | | | |
| | Characteris | stic: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Actuator De | | | | ed Valve | | | Size: | Destitions | | | | 50 | | | |
| | Manufactur | er: | | | ORK | | | Mounting | | | | | Deselle | al . | | _ |
| ACTUATOR | Model: Direction: | | | KUM | pak-2 | | | Stroke Tin | Drientation: | | | | Paralle | 21 | | s |
| ¥Τ | Fail Position | in. | | Fail Last | Position | | | Stroke Tin | | | | | | | | s |
| 7 | Operating S | | | T dil Edo | T OSHIOT | | | Torque/Th | | | | | 50 | | | lm |
| AC | | Voltage: | 120 | V | 1 | 1 | Ph | | | | Min | | | ax | Units | |
| | Electrical | FLA: | | | | <u> </u> | A | Pneu- matic | Air Supply Pressure: | _ | N/A | | N | | Psig | _ |
| | Operation | LRA: | | | | | A | Operation | Bench Ran | nge: | | N. | | | Psig | _ |
| | | | | | | | | | | 3* | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | | XV-F | 8706 | | | H | andwheel: | | | | Yes | | | |
| | Positioner: | | | N | lo | | | Limit S | Switch Close | d: | | | Yes | | | |
| SN | | | lo | | | Limit | Switch Open | n: | | | Yes | | | | | |
| OPTIONS | Gauges: | | N | lo | | | Sole | enoid Valve: | | | | No | | - | | |
| DP. | Bypass: No | | | lo | | | Electrica | al Classificat | ion: | | | Note 2 | 2 | | | |
| 0 | Pilot Light: No | | | lo | | | Bac | ckup Power: | | | | No | | | | |
| | Marshalling Box: No | | | lo | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | |
| S | 2. NEMA 4X, non-hazardous area. | | | | | | | | · | | | | | | | |
| Ë | 3. Manufacturer and models were standardized by the City via RF | | | | | 14, no alte | rnates or su | ubstitutes w | ill be accepte | ed. | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | _[] |

| | | | | | | | | Cont | rol V | alve | | | | TA SHEET | | REV. |
|----------------|---|--|-----------|--------------|------------|----------------|-------------|----------------|----------------|--------------|-------------------|------------|-------------|--------------|----------|-------|
| | KGS | | | | | | | | | | | | | ST-XV-F87 | | 0 |
| | GROUP | | | | | | | | all Valve | | | | SHEET | 1 | OF | 1 |
| | | | | | | NO. | DAT | | | REVISION | | | BY | CHK'D | PROC. | APPR. |
| | GRO | O P | | | | 0 | 2022-0 | 5-18 | Issu | ed for Cor | nstruction | | JP | RC | Ril | RIC |
| | | | | | | | | | | | | | | | | |
| Pr | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| • • • | ojeci. | | 21-0107 | -013 | | | | | | | | | | | | |
| Τ. | C NO. | VI | / F0707 | Serial No: | | | | | Loc | op Wiring D | iagrams: | | 1-0 | 0101-AILD-I | F209-001 | |
| IA | G NO: | | /-F8707 | Spec No: | | | | | Lin | e / Vessel I | Number: | | | 50-FC-PV0 | 4-0717 | |
| Asse | et No: | | | P&ID: | | 1-0101-l | PPID-F007- | 001 | Lin | e ID: | | Size: | 50 | mm Sche | dule: | 80 |
| | | | | | | | | | Ma | nufacturer: | | | R | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | VE | | | Мо | del: | | | F | ROMPak | | |
| Purc | hase Order: | : | | | | | | Vendor: | | | | | Rotork Cor | ntrols Canad | da Ltd. | |
| Req | uisition Num | nber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | | | | | | | |
| | Fluid State | e: | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | Minimum: | | | | Normal (Op | perating): | _ | | Maxi | mum (Full S | Scale): | Ur | nits: |
| NS | Flow: | | | 8 | | | | 167 | | | | | 792 | | L | /hr |
| 은 | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| Ē | Temperatu | ure: | | 0 | | | | 20 | | | | | 30 | | | C C |
| CONDITIONS | | | | | | | | | | | | | | | | |
| | Design Pre | essure: | | 150 | | | psig | Vapour Pr | ressure Pv | : | | | N/A | | | |
| SES | | mperature: | | -10 to 50 | | | °C | | sibility (Z): | | | | N/A | | | |
| PROCESS | Lower SG / | | 1.39 | .0.000 | | | | Lower Vis | | N/A | Α | | | | | |
| Ж | Higher SG | | 1.46 | | | | | Higher Vis | | N/A | | | | | | _ |
| | Pipe Rating | | Class 150 | | | | | | Temperatur | | - | | 20 | | | C |
| | Pipe Mater | | PVC | | | | | | ssification: | | n Hazardous, | Corro | | | | _ |
| | Special Co | | N/A | | | | | 7 (I Ca Olas | Jointoution. | 140 | iii i iazai acas, | COITO | 3170 | | | - |
| | Special Co | | | | | | | | | | | | | | | _ |
| _ | | | | | | | | | | | | | | | | |
| | Valva Type | 0. | | Pall | Value | | | Maximum | Pressure: | | | | 230 | | | sig |
| \succeq | Valve Type: Ball Body Size: 50 | | |)mm | | | | nection Fac | | | | Female Thi | readed | p: | sig | |
| BODY | Body Mate | | | | VC | | | | ace Finish: | Je. | | | N/A | eaueu | | |
| Ш | Bonnet Sty | | | | N/A | | | | on & Isolation | on: | | | IN/A | | | |
| VALVE | ANSI Class | | | | 150 | | | Packing N | | J11. | | | EPDM or | Viton | | |
| > | Ball Materia | | | | VC | | | Packing S | | | | | LI DIVI OI | VILOTI | | |
| | Dan Watern | iai. | | • | 10 | | | r doking C | Style. | | | | | | | |
| | | | | | | | | | | | | _ | | | | |
| | Manufactu | irer: | | Che | emline | | | Shaft Mat | torial: | | | | PVC | | | _ |
| | Model: | | | Type 21 True | | /alve | | Stem Mat | | | | | PVC | | | _ |
| 5 | Size: | | | |)mm | aive | | Seal Mate | | | | | EPDM or | | | |
| TRIM | Rated Cv: | | | | 190 | | | Ball Mater | | | | | PVC | | | |
| Г | Characteris | | | ' | | | | Leakage (| | | | | 1 10 | | | |
| | Trim Type: | | | | | | | Leakage | Olass. | | | | | | | |
| | тиш турс. | • | | | | | | | | | | | | | | |
| _ | | | | | _ | | _ | _ | _ | | | _ | _ | _ | | _ |
| | Actuator D | Description: | | Motoria | ed Valve | | | Size: | | | | | 50 | | | |
| | Manufactur | | | | TORK | | | Mounting | Position: | | | | | | | |
| | Model: | | | | //pak-2 | | | | Orientation: | : | | | Paralle | el | | |
| ACTUATOR | Direction: | | | | | | | Stroke Tir | | | | | . aran | | | s |
| ١AΤ | Fail Position | on: | | Fail Las | t Position | | | Stroke Tin | | | | | | | | s |
| Ë | Operating 5 | | | | | | | Torque/Th | | | | | 50 | | | lm |
| AC | -, | Voltage: | 120 | V | | 1 | Ph | | Air Supp | lv. | Min | | | lax | Units | |
| | Electrical | El A· | | | | | A | Pneu- matic | Pressure | | N/A | | | I/A | Psig | |
| | Operation | LRA: | | | | | A | Operation | Bench R | ange: | | N | /A | | Psig | _ |
| | | | | | | | | | | | | | | | 9 | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | | XV- | F8707 | | | Н | landwheel: | | | | Yes | | | |
| | Positioner: | | | | No | | | | Switch Clos | sed: | | | Yes | | | |
| SN | Air Set: | | | | No | | | | Switch Op | | | | Yes | | | |
| ō | | Air Set: Gauges: | | | No | | | | enoid Valv | | | | No | | | |
| OPTIONS | | Bypass: | | | No | | | | al Classific | | | | Note: | 2 | | |
| 0 | Pilot Light: No | | | | | | | ckup Powe | | | | No | | | | |
| | Pilot Light: No Marshalling Box: No | | | | | | Dat | | | | | 140 | | | | |
| | Marshalling Box: No | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field | | | | d | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. NEMA 4X, non-hazardous area. | | | | | | | | | | | | | | | |
| S | NEMA 4X, non-hazardous area. Manufacturer and models were standardized by the City via RFP. | | | | RED 334 0 | 014 no olto | rnates or c | ihetitutee | vill be seen | nted | | | | | | |
| NOTES | J. Warluid | Manufacturer and models were standardized by the City via RF | | | | o 17, 110 alle | iu.co UI Sl | | De duce | piou. | | | | | | |
| ž | — | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol Va | ilve | | | | A SHEET | | REV. |
|------------|--|---|-----------|----------------|------------|------------------|-------------|----------------|----------------|-------------|---------------------------------------|------------|-------------|-------------|----------|----------|
| | 76 | | | | | | | | | | | ST-XV-F87 | | 0 | | |
| | M | KGS GROUP | | | | | | | all Valve | | | | SHEET | 1 | OF | 1 |
| _ | | | | | | NO. | DAT | | | REVISIO | | | BY | CHK'D | PROC. | APPR. |
| | GRO | O P | | | | 0 | 2022-0 | 5-18 | Issue | d for Cons | struction | | JP | RC | RIC | RlC |
| | | | | | | | | | | | | | | | | |
| Pr | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| , | ojeci. | | 21-0107 | -013 | | | | | | | | | | | | |
| Τ, | C NO. | V | / F0740 | Serial No: | | | | | Loop | p Wiring Di | agrams: | | 1-0 | 0101-AILD-I | F202-001 | |
| IA | G NO: | ^\ | /-F8710 | Spec No: | | | | | Line | / Vessel N | lumber: | | | 25-FC-PV0 | 4-0734 | |
| Asse | et No: | | | P&ID: | | 1-0101- | PPID-F003- | 001 | Line | ID: | | Size: | 25 | mm Sche | dule: | 80 |
| | | | | | | | | | Man | ufacturer: | | | R | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | VE | | | Mod | lel: | | | F | OMPak | | |
| Purc | hase Order: | : | | | | | | Vendor: | | | | | Rotork Cor | trols Canad | da Ltd. | |
| Req | uisition Num | nber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | | | | | | | |
| | Fluid State | 9 : | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | Minimum: | _ | | | Normal (Op | perating): | _ | | Maxii | mum (Full S | cale): | Ur | nits: |
| SN | Flow: | | | 90 | | | | 150 | | | | | 1700 | | L | /hr |
| 읟 | Pressure: | | | 60 | | | | 60 | 1 | | | | 60 | | p: | sig |
| Ē | Temperatu | ıre: | | 0 | | - - | | 20 | | | 1 | | 30 | | | C. |
| CONDITIONS | | | · | | | | | | | | <u> </u> | | | | | |
| | Design Pre | essure: | | 150 | | | psig | Vapour Pr | ressure Pv: | | | | N/A | | | |
| CES | Design Ter | | | -10 to 50 | | | °C | | sibility (Z): | | | | N/A | | -+ | |
| PROCESS | Lower SG / | | 1.39 | | | | | Lower Vis | | N/A | | | | | | |
| H. | Higher SG | | 1.46 | | | | | Higher Vis | | N/A | | | | | | _ |
| | Pipe Rating | | Class 150 | | | | | | Temperature | | | | 20 | | - | °C |
| | Pipe Mater | | PVC | | | | | Area Clas | | | n Hazardous, | Corro | | | | <u> </u> |
| | Special Co | | N/A | | | | | 7 (I Ca Olas | osinoation. | 1401 | i i i i i i i i i i i i i i i i i i i | 00110 | 13170 | | | - |
| | Special Co | | | | | | | | | | | | | | | _ |
| _ | | | | | | | | | | | | | | | | |
| | Valva Type | a: | | Pall | Value | | | Maximum | Pressure: | | | | 230 | | | sig |
| ≿ | Valve Type: Ball Val Body Size: 25mm | | | | | | | nection Face | a. | | | Female Thi | readed | p | sig | |
| BODY | Body Size. | | | | VC | | | | ace Finish: | j. | | | N/A | eaueu | | |
| Ш | Bonnet Sty | | | | I/A | | | | on & Isolation | 0. | | | IN/A | | | _ |
| VALVE | ANSI Class | · | | | 50 | | | Packing N | | | | | EPDM or | Viton | | |
| > | Ball Materia | | | | VC | | | Packing S | | | | | LI DIVI OI | VIIOII | | |
| | Ball Water | iai. | | | vo | | | r doking C | otyle. | | | | | | | |
| | | | | | | | | | | | | _ | | | | |
| | Manufactu | rer: | | Che | mline | | | Shaft Mat | erial: | | | | PVC | | | _ |
| | Model: | | | Type 21 True l | | /alve | | Stem Mat | | | | | PVC | | | - |
| 5 | Size: | | | | mm | aive | | Seal Mate | | | | | EPDM or | | | - |
| TRIM | Rated Cv: | | | | 47 | | | Ball Mater | | | | | PVC | | | |
| ⊥ | Characteris | | | | ** | | | Leakage (| | | | | 1 10 | | | - |
| | Trim Type: | | | | | | | Leakage | Ciass. | | | | | | | - |
| | тин турс. | | | | | | | | | | | | | | | |
| _ | _ | | | | _ | _ | _ | _ | _ | _ | | _ | _ | | | _ |
| | Actuator D | escription: | | Motoriz | ed Valve | | | Size: | | | | | 50 | | | _ |
| | Manufactur | | | | TORK | | | Mounting | Position: | | | | | | | |
| ~ | Model: | | | | Ipak-2 | | | | Orientation: | | | | Paralle | el | | |
| Q. | Direction: | | | | | | | Stroke Tir | | | | | | | | s |
| ١AΤ | Fail Position | on: | | Fail Las | t Position | | | Stroke Tin | | | | | | | | s |
| ACTUATOR | Operating 5 | | | | | | | Torque/Th | | | | | 50 | | | Vm |
| AC | -, | Voltage: | 120 | V | | 1 | Ph | | Air Supply | , | Min | | | ax | Units | |
| | Electrical | EI A· | | | | | A | Pneu- matic | Pressure: | | N/A | | | /A | Psig | |
| | Operation | LRA: | | | | | A | Operation | Bench Ra | nge: | | N | I/A | | Psig | _ |
| | | | | | | | | | | ger | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | Steel Tag: | | XV-F | F8710 | | | Н | landwheel: | | | | Yes | | | |
| | Positioner: | | | | | | | | Switch Close | ed: | | | Yes | | | |
| छ | Positioner: No Air Set: No | | | | | | Switch Ope | | | | Yes | | | | | |
| ō | | Gauges: No | | | | | | enoid Valve | | | | No | | | | |
| OPTIONS | | Bypass: No | | | | | | | al Classifica | | | | Note: | 2 | | |
| 0 | | Pilot Light: No | | | | | | | ckup Power: | | | | No | | | |
| | Marshalling Box: No | | | | | | Dat | ap 1 0Wel. | | | | 140 | | | | |
| | Marshalling Box: No | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. NEMA 4X, non-hazardous area. | | | | | | | | | | | | | | | |
| S | NEMA 4X, non-hazardous area. Manufacturer and models were standardized by the City via RFP | | | | | 014 no olto | rnates or c | ihetitutee | vill be acces | ted | | | | | | |
| NOTES | J. Warluid | Manufacturer and models were standardized by the City via RFI | | | | | iu.co UI Sl | | be accep | | | | | | | |
| ž | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol V | alve | | | | A SHEET | | REV. |
|----------------|---|--|-----------|----------------|------------------|----------|--------------|-------------------------|---------------------|--------------|---------------|-----------|-------------|-------------|--------------|---------|
| | 7 | | | | | | | | | | | ST-XV-F87 | | 0 | | |
| | | KGS GROUP | | | | | | | all Valv | | | | SHEET | 1 | OF | 1 |
| | | | | | | NO. | DAT | | | REVISI | | | BY | CHK'D | PROC. | APPR. |
| | GRO | 0 P | | | | 0 | 2022-0 | 5-18 | Issu | ued for Co | nstruction | | JP | RC | RIC | RlC |
| | | • | | | | | | | | | | | | | | |
| Pr | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| • • • | Oject. | | 21-0107 | -013 | | | | | | | | | | | | |
| Τ. | C NO. | VI | / E0744 | Serial No: | | | | | Lo | oop Wiring I | Diagrams: | | 1-0 | 0101-AILD-I | F203-001 | |
| IA | G NO: | ^\ | /-F8711 | Spec No: | | | | | Li | ne / Vessel | Number: | | | 25-FC-PV0 | 4-0735 | |
| Asse | et No: | | | P&ID: | | 1-0101-F | PPID-F003- | -001 | Li | ne ID: | | Size: | 25 | mm Sche | dule: | 80 |
| | | | | | | | | | М | anufacturer | : | | R | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | VE | | | М | odel: | | | F | ROMpak | | |
| Purc | chase Order: | | | | | | | Vendor: | | | | | Rotork Cor | trols Canad | da Ltd. | |
| Req | uisition Num | ber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | | | | | | | |
| | Fluid State: | : | | | | | | L | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | Minimum: | | | | Normal (Op | perating): | | | Maxi | mum (Full S | cale): | Ur | nits: |
| NS | Flow: | | | 90 | | | | 150 | | | | | 1700 | , | | /hr |
| 은 | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| ġ | Temperatu | ire: | | 0 | | | | 20 | | | | | 30 | | | °C |
| CONDITIONS | | | | | | | | | | | | | | | | |
| | Design Pre | essure: | | 150 | | | psig | Vapour Pr | ressure P | v: | | | N/A | | | |
| S | Design Ter | | | -10 to 50 | | | °C | Compress | | | | | N/A | | | |
| PROCESS | Lower SG / | | 1.39 | .5 10 00 | | | | Lower Vis | | | /A | | | | | |
| PR | Higher SG | | 1.46 | | | | | Higher Vis | | | /A /A | | | | | [] |
| | Pipe Rating | | Class 150 | | | | | | Temperatu | | /// | | 20 | | | C |
| | | | PVC | | | | | Area Clas | | | on Hazardous | Corro | | | | 0 |
| | Pipe Materi | | | | | | | Alea Clas | SSIIICALIOII. | . | UII Hazaiuuus | , Cono | sive | | | |
| | Special Co | ondition: | N/A | | | | | | | | | | | | | _ |
| _ | | | | | | | | | | | | _ | | | | |
| | Value Tone | | | D-II | 1/-1 | | | V- | December | | | | 000 | | | |
| ≿ | | Valve Type: Ball Valv Body Size: 25mm | | | | | | | Pressure | | | | 230 | | p | sig |
| BODY | Body Size: | | | | | | | | nection Fa | | | | Female Thi | eaded | | _ |
| Ш | Body Mater | | | | VC | | | | ace Finish | | | | N/A | | | _ |
| VALVE | Bonnet Sty | | | | I/A | | | | on & Isolat | ion: | | | | | | _ |
| X | ANSI Class | | | | VC | | | Packing N | | | | | EPDM or | viton | | _ |
| | Ball Materia | al: | | P | VC | | | Packing S | style: | | | | | | | |
| _ | | | | | | | | | | | | | | | | |
| | Manufacture | | | 01 | mline | | | Ob of Mar | and a la | | | | D) (O | | | _ |
| | Manufactur | rer: | | | | | | Shaft Mat | | | | | PVC | | | _ |
| V | Model: | | | Type 21 True l | | alve | | Stem Mate | | | | | PVC | | | |
| TRIM | Size: | | | | mm | | | Seal Mate | | | | | EPDM or | | | |
| F | Rated Cv: | atia. | | | 47 | | | Ball Mater | | | | | PVC | | | |
| | Characteris | | | | | | | Leakage (| Ciass: | | | | | | | _ |
| | Trim Type: | | | | | | | | | | | | | | | |
| _ | | | | | | | | | | | | | | | | |
| | A atuata a D | a a substitute | | Materia | - 11/-1 | | | 0: | | | | | 50 | | | _ |
| | Actuator De Manufactur | | | | ed Valve FORK | | | Size: Mounting | Desitions | | | | 50 | | | |
| | | iei. | | | | | | Actuator (| | | | | Darell | -1 | | _ |
| OR | Model: Direction: | | | KUN | 1pak-2 | | | Stroke Tin | | | | | Paralle | υI | | s |
| ¥ | | n. | | Foilles | t Docition | | | - | | | | | | | | _ |
| ACTUATOR | Fail Positio | | | rdii Las | t Position | | | Stroke Tir Torque/Th | | | | | 50 | | | s Im |
| ζ, | Operating 8 | Voltage: | 120 | V | | 1 | Ph | Torque/Tr | | | Min | | | ax | Units | |
| | Electrical | FLA: | 120 | v | | <u>'</u> | A | Pneu- matic | Air Supp Pressur | | N/A | | | /A | 1 | |
| | Operation | LRA: | | | | | A | Operation | | | IN/A | | I/A | /A | Psig Psig | |
| | | LRA: | | | | | А | | Bench F | Range: | | IN | I/A | | Psig | |
| | | | | | | | | | | | | | | | | |
| | Ctainless | Steel Tees | | VV I | 0744 | | | | la a du de a a l | | | | Vee | | | |
| | Stainless S | | | | F8711 | | | | landwheel | | | | Yes | | | _ |
| S | Positioner: No | | | | | | Switch Clo | | | | Yes | | | _ | | |
| O | | Air Set: No | | | | | | Switch O | | | | Yes | | | | |
| OPTIONS | | Gauges: No | | | | | | | enoid Val | | | | No | 2 | | |
| О | | Bypass: No | | | | | | | al Classifi | | | | Note: | ۷ | | |
| | | Pilot Light: No Marshalling Roy: No | | | | | | Bad | ckup Pow | er: | | | No | | | |
| | Marshalling Box: No | | | NO ON | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | |
| S | 2. NEMA 4X, non-hazardous area. | | | | | | | | | | | | | | | |
| NOTES | 3. Manufac | 3. Manufacturer and models were standardized by the City via RFF | | | | | rnates or si | ubstitutes w | vill be acc | epted. | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol V | alve | | | | A SHEET | | REV. |
|----------------|---|---|-----------|----------------|--------------|----------|-------------|--------------------|---------------|---------------|--------------|-------|-------------|-------------|----------|-------|
| | 7 | | | | | | | | | | | | ST-XV-F87 | | 0 | |
| | KGS GROUP | | | | | | | | all Valve | | | | SHEET | 1 | OF | 1 |
| | | | | | | NO. | DAT | | | REVISIO | | | BY | CHK'D | PROC. | APPR. |
| | GROU | UP | | | | 0 | 2022-0 | 5-18 | Issu | ed for Con | nstruction | | JP | RC | RIC | RIC |
| | | • | | | | | | | | | | | | | | |
| Pr | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| -1 | oject. | | 21-0107 | -013 | | | | | | | | | | | | |
| - • | O NO: | V1 | , F0747 | Serial No: | | | • | • | Loc | op Wiring D | iagrams: | | 1-0 | 0101-AILD- | F210-001 | • |
| IA | G NO: | ^\ | /-F8717 | Spec No: | | | | | Lin | ne / Vessel N | Number: | | | 80-FC-PV0 | 4-0705 | |
| Asse | et No: | | | P&ID: | | 1-0101-F | PPID-F004- | 001 | Lin | ne ID: | | Size: | 80 | mm Sche | dule: | 80 |
| | | | | <u> </u> | | | | | Ma | nufacturer: | | | R | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | VE | | | Mo | odel: | | | IC | T Series | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | Rotork Cor | trols Canad | da Ltd. | |
| Req | uisition Numl | ber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | | | | | | | |
| | Fluid State: | : | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| ٠, | | | | Minimum: | | | 1 | Normal (Op | perating): | | | Maxi | mum (Full S | cale): | Ur | nits: |
| Š | Flow: | | | 3.0 | | | | 5.4 | 1 | | | | 7.0 | | L | /s |
| Ĕ | Pressure: | | | 60 | | | | 60 |) | | | | 60 | | p: | sig |
| CONDITIONS | Temperatu | ire: | | 0 | | | | 20 |) | | | | 30 | | ۰ | 'C |
| | | | | | | | | | | | | | | | | |
| SS | Design Pre | essure: | | 150 | | | psig | Vapour Pr | ressure Pv | ' : | | | N/A | | | |
| CE | Design Ten | mperature: | | -10 to 50 | | | °C | Compress | sibility (Z): | | | | N/A | | | |
| PROCESS | Lower SG / | / Density: | 1.39 | | | | | Lower Vis | scosity: | N/A | A | | | | | |
| Т | Higher SG | / Density: | 1.46 | | | | | Higher Vis | scosity: | N/A | A | | | | | |
| | Pipe Rating | g: | Class 150 | | | | | Ambient T | Temperatur | re: | | | 20 | | ۰ | C |
| | Pipe Materi | ial: | PVC | | | | | Area Clas | ssification: | No | n Hazardous, | Corro | sive | | | |
| | Special Co | ndition: | N/A | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Valve Type | 9: | | Ball | Valve | | | Maximum | Pressure: | : | | | 150 | | p: | sig |
| BODY | Valve Type: Body Size: | | | 80 |)mm | | | Inlet Conr | nection Fac | ce: | | | Flange | ed | | |
| BC | Body Mater | rial: | | Р | VC | | | Flange Fa | ace Finish: | | | | Flat Fa | се | | |
| VALVE | Bonnet Sty | rle: | | N | N/A | | | Lubricatio | on & Isolatio | on: | | | | | | |
| AL. | ANSI Class | s: | | 1 | 50 | | | Packing N | Material: | | | | EPDM or | Viton | | |
| > | Ball Materia | al: | | Р | VC | | | Packing S | Style: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manufactur | rer: | | Che | mline | | | Shaft Mat | terial: | | | | PVC | | | |
| | Model: | | | Type 21 True l | Union Ball V | /alve | | Stem Mat | terial: | | | | PVC | | | |
| TRIM | Size: | | | 80 |)mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| TR | Rated Cv: | | | 4 | 110 | | | Ball Mater | rial: | | | | PVC | | | |
| | Characteris | stic: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Actuator De | escription: | | | ed Valve | | | Size: | | | | | 125 | | | |
| | Manufactur | rer: | | | TORK | | | Mounting | | | | | | | | |
| SR | Model: | | | IQT | Series | | | | Orientation: | ï | | | Paralle | el | | |
| F | Direction: | | | | | | | Stroke Tir | | | | | | | | s |
| Ď | Fail Positio | | | Fail Las | t Position | | | Stroke Tin | | | | | | | | s |
| ACTUATOR | Operating S | | | | | | | Torque/Th | hrust | | | | 125 | | | lm |
| 4 | Electrical | Voltage: | 120 | V | | 1 | Ph | Pneu- | Air Supp | | Min | | | ax | Units | |
| | Operation | FLA: | | | | | A | matic Operation | Pressure | | N/A | | | /A | Psig | _ |
| | | LRA: | | | | | Α | - | Bench R | lange: | | N | /A | | Psig | |
| | | | | | | | | | | | | | | | | |
| | Chairle - | Neel Trees | | | E0747 | | | | land: t | | | | ., | | | |
| | Stainless S | | | | F8717 | | | | landwheel: | | | | Yes | | | |
| S | Positioner: No | | | | | | Switch Clos | | | | Yes | | | | | |
| O | | | | No | | | | Switch Op | | | | Yes | | | | |
| OPTIONS | | Gauges: No | | | | | | enoid Valv | | | | No | 2 | | | |
| Q | Bypass: No | | | | | | | al Classific | | | | Note: | ۷ | | | |
| | Pilot Light: No | | | | | | Bad | ckup Powe | er: | | | No | | | _[| |
| | Marshalling Box: No | | | NO | | | | | | | | | | | _[| |
| | | | | | | | | | | | | | | | | |
| | 1 Vendor to fill in or provide relevant information in empty field | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | _[|
| S | NEMA 4X, non-hazardous area. Manufacturer and models were standardized by the City via REP. | | | | | 044 : | | de ante de | 201.6 | -1-1 | | | | | | |
| NOTES | 3. Manufac | Manufacturer and models were standardized by the City via RFP | | | | | mates or st | upstitutes w | viii de acce | ptea. | | | | | | |
| Š | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | Conti | rol Val | VA | | DAT | A SHEET | NO. | REV. |
|-----------------------|----------------------------|-----------------------|---------------------|------------|---|--------------|----------------|-------------------|------------|--------------|-----------------|---------------|----------|-------|
| | | | | | | | | | VC | | | ST-XV-F88 | | 0 |
| K | GS | | | | | | Ва | III Valve | | | SHEET | 1 | OF | 1 |
| | | | | N | Ο. | DATE | | F | REVISIO | ٧ | BY | CHK'D | PROC. | APPR. |
| GR | ROUP | | | (| o : | 2022-05 | i-18 | Issued | for Cons | truction | JP | RC | RC | RIC |
| | | | | | | | | | | | | | | |
| D | | 04 0407 | 045 | | | | | | | | | | | |
| Project | E . | 21-0107 | -015 | | | | | | | | | | | |
| | | | Serial No: | | | | <u> </u> | Loop \ | Niring Dia | grams: | 1-(|)101-AILD-I | F237-001 | |
| TAG NO |): XV | ′-F8800 | Spec No: | | | | | | Vessel Nu | | | 0-SHD-PV | | |
| Asset No: | | | P&ID: | 1-0 | 101-PP | ID-F005-0 | 001 | Line II | | | | mm Sche | | 80 |
| 10001110. | | | i ais. | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | - | | acturer: | | | OTORK | duio. | |
| Description: | : | | MOTORIZED BALI | L VALVE | | | | Model | | | | T Series | | |
| Purchase Or | uuda u | I | | | | | Vendor: | Woder | • | | Rotork Cor | | do I td | |
| | | | | | | | | | | | KOIOIK COI | illois Cariac | Ja Liu. | |
| Requisition I | Number: | | | | | | Job Numb | er: | | | | | | |
| E1 11 | | 1 | | | | | 0 " | | | | | | | — |
| Fluid: | a | | | | | | | Hydroxide | | | | | | _ |
| Fluid S | State: | | | | | | Li | iquid | | | | | | |
| | | | | | | | | | | | | | | |
| S | | | Minimum: | | | ١ | Normal (Ope | | | ı | Maximum (Full S | cale): | | nits: |
| No Flow: | | | 3.0 | | | | 5.4 | | | | 7.0 | | L | /s |
| Pressu | ure: | | 60 | | | | 60 | | | | 60 | | P | sig |
| Flow: Pressu Tempe | erature: | | 15 | | | | 20 | | | | 30 | | ۰ | C |
| | | | | | | | | | | | | | | |
| S Design | n Pressure: | | 150 | | | Psig | Vapour Pr | essure Pv: | | | N/A | | | |
| Design | n Temperature: | | 10 to 50 | | | °C | Compress | sibility (Z): | | | N/A | | | |
| S Design Design Lower | SG / Density: | N/A | | | | | Lower Visc | cosity: | | | N/A | | | |
| Higher | r SG / Density: | 1.53 | | | | | Higher Vis | | | | 36 | | c | P |
| Pipe R | Rating: | N/A | | | | | | emperature: | | | 20 | | - | C. |
| _ | Material: | PVC | | | | | Area Class | | Non | Hazardous, C | Corrosive | | | _ |
| | al Condition: | N/A | | | | | | | | | | | | |
| - | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Valve : | Type: | ı | Ball Valve | ` | | | Maximum | Proceuro: | | | 150 | | | sig |
| Pody | ** | | | , | | | | | | | | .d | - Р | aig . |
| | | | 80mm | | | | | nection Face: | | | Flange | | | _ |
| Body N | Material: | | PVC | | | | Flange Fa | | | | Flat Fa | ce | | _ |
| | et Style: | | N/A | | | | | n & Isolation: | | | | | | _ |
| ANSI | | | 150 | | | | Packing M | | | | EPDM or | Viton | | |
| Ball Ma | laterial: | | PVC | | | | Packing S | ityle: | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Manufa | facturer: | | Chemline | 1 | | | Shaft Mate | erial: | | | PVC | | | |
| Model: | : | | Type 21 True Union | Ball Valve | | | Stem Mate | erial: | | | PVC | | | |
| Size: | | | 80mm | | | | Seal Mate | rial: | | | EPDM or | Viton | | |
| Rated | Cv: | | 410 | | | | Ball Mater | ial: | | | PVC | | | |
| Charac | cteristic: | | | | | | Leakage C | Class: | | | | | | |
| Trim T | Гуре: | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Actuate | tor Description: | | Motorized Va | alve | | | Size: | | | | 125 | | | |
| Manufa | facturer: | | ROTORK | | | | Mounting I | Position: | | | | | | |
| Model: | : | | IQT Series | S | | | Actuator C | Orientation: | | | Paralle | el | | |
| Direction Fail Po | ion: | | | | | | Stroke Tim | ne Open: | | | | | | s |
| ₹ Fail Po | osition: | | Fail Last Posi | ition | | | Stroke Tim | ne Close: | | | | | | s |
| Operat | iting Sig: | | | | | | Torque/Th | rust | | | 125 | | N | ١m |
| A — | Voltage: | 120 | V | 1 | | Ph | | Air Supply | | Min | М | ax | Units | _ |
| Electri | rical ELA: | | | | | A | Pneu- matic | Pressure: | | N/A | N | /A | Psig | _ |
| Opera | LRA: | | | | | Α | Operation | Bench Rang | 10. | 14/1 | N/A | | Psig | |
| | LIVA. | | | | | | | Denon Kang | je. | | IV/A | | 1 sig | |
| | | | | | | | | | | | | | | |
| Stainle | ass Stool Tag: | ı | XV-W8800 | n | | | ш | andwheel: | | | Voc | | | |
| | ess Steel Tag: | | | | | | | | | | Yes | | | |
| Positio | | | No | | | | | Switch Closed | | | Yes | | | |
| \overline{a} | Air Set: No | | | | | | | Switch Open: | | | Yes | | | |
| Gauge | Gauges: No | | | | | | | enoid Valve: | | | No | _ | | |
| Bypass | typass: No | | | | | | | al Classification | on: | | Note 2 | 2 | | |
| Pilot Li | Pilot Light: No | | | | | | Bac | kup Power: | | | No | | | |
| Marsha | Marshalling Box: No | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 1. Ven | ndor to fill in or provide | relevant informati | ion in empty field. | | | | | | | | | | | |
| 2. NEN | MA 4X, non-hazardou | s area. | | | | | | | | | | | | |
| 3. Man | nufacturer and models | d by the City via RFP | 331-2014, no | o alterna | ates or su | bstitutes wi | ill be accepte | d. | | | | | | |
| | | | | | | | - | | | | | | | |
| Z | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| | KGS | | | | | | | Cont | rol V | alve | | | | A SHEET | | REV. |
|------------|--|--|---------------------|---------------------|----------------|----------|--------------|------------------------|---------------------|----------------|------------|-----------|-------------|-------------|---|-------|
| | 7 | | | | | | | | | | | ST-XV-F88 | | 0 | | |
| | ••• | | | | | | | | all Valv | | | | SHEET | 1 | OF | 1 |
| _ | GROU | | | | | NO. | DAT | | | REVISIO | | | BY | CHK'D | PROC. | APPR. |
| | GROU | ,,, | | | | 0 | 2022-0 | 5-18 | Issu | ued for Cons | truction | | JP | RC | RIC | RU |
| | | | | | | | | | | | | | | | | |
| P۲ | oject: | | 21-0107 | -015 | | | | | | | | | | | | |
| • • • | ojeot. | | 21 0107 | 0.10 | | | | | | | | | | | | |
| тΛ | G NO: | ٧١ | /-F8801 | Serial No: | | | | | Lo | oop Wiring Dia | grams: | | 1- | 0101-AILD-I | F238-001 | |
| ٠. | o 140. | ۸۱ | 7-1 0001 | Spec No: | | | | | Li | ne / Vessel Nu | ımber: | | 8 | 0-SHD-PV |)4-0804 | |
| Asse | et No: | | | P&ID: | | 1-0101-l | PPID-F005- | -001 | Li | ne ID: | | Size: | 80 | mm Sche | dule: | 80 |
| Doca | cription: | | | MOTORIZED | BALL VAL | \/E | | | M | anufacturer: | | | R | OTORK | | |
| Desc | inpuon. | | | WOTORIZEE | DALL VAL | .VL | | | М | odel: | | | IC | T Series | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | Rotork Cor | trols Canad | da Ltd. | |
| Requ | uisition Numb | oer: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | | n Hydroxid | le | | | | | | |
| | Fluid State: | | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| <u>S</u> | | | | Minimum: | | | | Normal (Op | | | | Maxii | mum (Full S | scale): | | nits: |
| <u>S</u> | Flow: | | | 3.0 | | | | 5.4 | | | | | 7.0 | | | /s |
| = | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| CONDITIONS | Temperatur | e: | <u> </u> | 15 | | | | 20 |) | | L | | 30 | | | C |
| | | | | | | | | | | | | | | | | |
| ESS | Design Pres | | | 150 | | | Psig | | ressure P | | | | N/A | | | |
| PROCESS | Design Tem | | N/A | 10 to 50 | | | °C | - | sibility (Z): | | | | N/A | | | |
| PR | Lower SG / | | N/A | | | | | Lower Vis | | | | | N/A | | $-\!$ | |
| | Higher SG / | | 1.53 | | | | | Higher Vis | | | | | 36 | | | P |
| | Pipe Rating | | N/A | | | | | | Temperatu | | | _ | 20 | | ° | С |
| | Pipe Materia | | PVC | | | | | Area Clas | ssification: | : Non | Hazardous, | Corro | sive | | | _ |
| | Special Cor | ndition: | N/A | | | | | | | | | | | | | _ |
| _ | | | | | | | | | | | | | | | | |
| | Valve Type | | | Rall | Valve | | | Maximum | n Pressure | · · | | | 150 | | | sig |
| \succeq | Valve Type: Body Size: | | | |)mm | | | | nection Fa | | | | Flange | ad . | ps | sig |
| BODY | Body Size: Body Material: | | | | VC | | | | ace Finish | | | | Flat Fa | | | |
| Щ | Bonnet Style | | | | N/A | | | | on & Isolat | | | | i iat i a | | | |
| VALVE | ANSI Class | | | | 50 | | | Packing N | | | | | EPDM or | Viton | | |
| > | Ball Materia | | | | VC | | | Packing S | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manufacture | er: | | Che | mline | | | Shaft Mat | terial: | | | | PVC | | | |
| | Model: | | | Type 21 True l | Union Ball V | /alve | | Stem Mat | terial: | | | | PVC | | | |
| TRIM | Size: | | | 80 |)mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| H | Rated Cv: | | | 4 | 110 | | | Ball Mater | erial: | | | | PVC | | | |
| | Characteris | tic: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | 11/1 | | | lo: | | | | | | | | |
| | Actuator De | | | | ed Valve | | | Size: | Danisiana | | | | 125 | | | _ |
| | Manufacture Model: | CI. | | | TORK Series | | | Mounting Actuator (| Orientation: | n: | | | Parall | al | | |
| OR | Direction: | | | iQI | CGIICO | | | Stroke Tin | | | | | raidli | υI | | s |
| AT | Fail Position | n· | | Fail Las | t Position | | | - | me Close: | | | | | | | s |
| ACTUATOR | Operating S | | | . un Lao | | | | Torque/Th | | | | | 125 | | | lm |
| AC | | Voltage: | 120 | V | | 1 | Ph | | | nlv | Min | | | ax | Units | _ |
| | Electrical | FLA: | | • | | | A | Pneu- matic | Air Supp Pressur | | N/A | | | /A | Psig | _ |
| | Operation | LRA: | | | | | A | Operation | n Bench F | Range: | | N | /A | | Psig | _ |
| | | | _ | | | | | | | 3. | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless St | teel Tag: | | XV-V | V8801 | | | Н | landwheel | l: | | | Yes | | | |
| | Positioner: | | | ı | No | | | Limit S | Switch Clo | osed: | | | Yes | | | |
| Š | Air Set: No | | No | | | Limit | t Switch O | pen: | | | Yes | | | | | |
| OPTIONS | | | No | | | Sole | lenoid Val | ve: | | | No | | | | | |
| ЭБ | Bypass: | // | | | No | | | Electrica | cal Classifi | ication: | - | | Note | 2 | | |
| Ŭ | Pilot Light: No | | | No | | | Bad | ckup Pow | er: | | | No | | | | |
| | Marshalling Box: No | | | No | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | e relevant informat | tion in empty field | d. | | | | | | | | | | | |
| S | NEMA 4X, non-hazardous area. Mapulfactures and models were standardized by the City via REP. | | | | | | | 1. 45 - | | | | | | | | |
| NOTES | 3. Manufact | 3. Manufacturer and models were standardized by the City via RFI | | | | | rnates or su | ubstitutes w | will be acco | epted. | | | | | | |
| S | | | | | | | | | | | | | | | _[| |
| | | | | | | | | | | | | | | | | |

| | | | | | | Cont | rol Valve | _ | | TA SHEET | | REV. |
|-------------------------------|--------------------------|------------------|--------------------------|-----------------|---------------|--------------|--------------------|----------------|---------------|-------------|---------|----------|
| | | | | | | | | • | | ST-XV-F8 | | 0 |
| K(| | | | | | Ва | all Valve | | SHEET | | OF | 1 |
| | | | | NO. | DAT | Έ | REV | ISION | BY | CHK'D | PROC. | APPR. |
| GRC | OUP | | | 0 | 2022-0 | 5-18 | Issued for | Construction | JP | RC | RIC | Rill |
| | | | | | | | | | | | | |
| D | | | | | | | | | | | | |
| Project: | | | | | | | | | | | | |
| | | | Serial No: | | | | Loop Wiri | ng Diagrams: | | ı | | |
| TAG NO: | XV | /-F8802 | Spec No: | | | | | sel Number: | | 50-SHD-PV | 04-0813 | |
| Asset No: | | | P&ID: | 1-0101 | -PPID-F008 | -001 | Line ID: | ooi rramboi: | | | edule: | 80 |
| noset No. | | | I GID. | 1-0101 | -1 1 1D-1 000 | -001 | Manufacti | IFOF: | | ROTORK | duie. | 00 |
| Description: | | | MOTORIZED BALL | VALVE | | | | ner. | | | | |
| | | | | | | | Model: | | | ROMPak | | |
| Purchase Orde | | | | | | Vendor: | | | Rotork Co | ntrols Cana | da Ltd. | |
| Requisition Nu | umber: | | | | | Job Numb | oer: | | | | | |
| | | | | | | | | | | | | |
| Fluid: | | | | | | Sodium | Hydroxide | | | | | |
| Fluid Sta | ate: | | | | | Li | iquid | | | | | |
| | | | | | | | | | | | | |
| (0 | | | Minimum: | | | Normal (Op | erating): | | Maximum (Full | Scale): | Ur | nits: |
| Flow: | | | 8 | | | 67 | | | 792 | | L | /hr |
| Pressure | e: | | 60 | | | 60 | | | 60 | | Р | sig |
| Tempera | ature: | | 15 | | | 20 | | | 30 | | | 'C |
| Flow: Pressure Tempera | | · | | | | | | - | | | | |
| | Pressure: | | 150 | | Psig | Vapour Pr | ressure Pv: | | N/A | | T | |
| Design T | Temperature: | | 10 to 50 | | °C | Compress | | | N/A | | + | |
| ŏ | | N/A | 10 10 30 | | | - | | | | | | |
| Lower SC | G / Density: | N/A | | | | Lower Vis | | | N/A | | | |
| | SG / Density: | 1.53 | | | | Higher Vis | | | 36 | | | P |
| Pipe Rat | | N/A | | | | | Temperature: | | 20 | | ٠ | C |
| Pipe Mat | terial: | PVC | | | | Area Clas | sification: | Non Hazardous, | , Corrosive | | | |
| Special 0 | Condition: | N/A | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Valve Ty | ype: | | Ball Valve | | | Maximum | Pressure: | | 230 | | p | sig |
| Body Siz | ze: | | 50mm | | | Inlet Conn | nection Face: | | Female TI | readed | | |
| Body Siz Body Ma | aterial: | | PVC | | | Flange Fa | ace Finish: | | N/A | 4 | | |
| Bonnet S ANSI Cla | Style: | | N/A | | | Lubricatio | n & Isolation: | | | | | |
| ANSI Cla | ass: | | 150 | | | Packing M | Material: | | EPDM o | r Viton | | |
| S Ball Mate | | | PVC | | | Packing S | | | | | | |
| | | | | | | | , | | | | | |
| | | | | | | | | | | | | |
| Manufac | eturor: | | Chemline | | | Shaft Mate | orial: | | PV | ^ | | |
| Model: | starer. | | | all Valva | | Stem Mate | | | PV | | | \dashv |
| | | | Type 21 True Union B | all valve | | | | | | | | - |
| Size: | | | 50mm | | | Seal Mate | | | EPDM o | | | |
| | | | 190 | | | Ball Mater | | | PV | <i>.</i> | | |
| Characte | | | | | | Leakage (| Class: | | | | | |
| Trim Typ | oe: | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | Description: | | Motorized Valv | re . | | Size: | | | 50 | | | |
| Manufac | cturer: | | ROTORK | | | Mounting | | | | | | |
| Model: | | | ROMpak-2 | | | | Orientation: | | Para | llel | | |
| Direction | n: | | | | | Stroke Tin | ne Open: | | | | | s |
| Fail Posi | ition: | | Fail Last Positi | on | | Stroke Tin | me Close: | | | | | s |
| Direction Fail Posi Operating | ng Sig: | | | | | Torque/Th | nrust | | 50 | | N | lm |
| | Voltage: | 120 | V | 1 | Ph | Pneu- | Air Supply | Min | | Max | Units | |
| Electrica Operatio | | | | | А | matic | Pressure: | N/A | | N/A | Psig | |
| Operatio | LRA: | | | | А | Operation | Bench Range: | | N/A | | Psig | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Stainless | s Steel Tag: | | XV-F8802 | | | H | landwheel: | | Ye | S | | |
| Positione | | | No | | | Limit S | Switch Closed: | | Ye | 3 | | |
| | Air Set: No | | | | | - | Switch Open: | | Ye | | | _ |
| Gauges: | | | | | | | enoid Valve: | | No | | | |
| <u> </u> | | | | | | | al Classification: | | Note | | | |
| O Dilatti | ypass: No | | | | | | | | | | | |
| | ilot Light: No | | | | | Вас | ckup Power: | | No | 1 | | |
| Marshalli | Marshalling Box: No | | | | | | | | | | | اللب |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | or to fill in or provide | | tion in empty field. | | | | | | | | | |
| 2. NEMA | A 4X, non-hazardou | | | | | | | | | | | |
| 3. Manuf | facturer and models | were standardize | ed by the City via RFP 3 | 31-2014, no alt | ernates or s | ubstitutes w | ill be accepted. | | | | | |
| 3. Manuf | | | | | | | | | | | | |
| _ | | | | | | | | | | | | |
| | | | _ | _ | | | _ | | _ | | | |

| | | | | | | | Cont | trol Val | VO. | | D | ATA SHEET | NO. | REV. |
|--------------------|------------------------------|-----------------------|--------------------|-------------------------|--------------|---|---------------|------------------|------------|----------------|-------------|--------------|------------------|----------|
| | 7 | | | | | | | | VC | | | DST-XV-F8 | 803 | 0 |
| K | (G | | | | | | Ва | all Valve | | | SHEE | | OF | 1 |
| _ | | | | | NO | . DAT | ΓE | F | REVISION | ٧ | BY | CHK'D | PROC. | APPR. |
| | GROU | UP | | | 0 | 2022-0 | 7-14 | Issued | for Cons | truction | JP | AF | | |
| | | | | | | | | | | | | | | |
| ď | | | | , | | | | | | | | | | |
| Pro | oject: | | | | | | | | | | | | | |
| | | | | Serial No: | | | | Loop | Wiring Dia | grams: | ı | | ı | l. |
| TA | G NO: | xv | ′-F8803 | Spec No: | | | | | Vessel Nu | | | 50-SHD-PV | 04-0814 | |
| Δοςρ | t No: | | | P&ID: | 1-01 | 01-PPID-F008 | R-001 | Line I | | | Size: | 50mm Sche | | 80 |
| 71000 | 1110. | | | i dib. | 1-01 | 01-111111111111111111111111111111111111 | | | | | OIZO. | ROTORK | oduic. | _ 。 |
| Desc | ription: | | | MOTORIZED BALL | VALVE | | | | facturer: | | | | | |
| _ | | | | | | | I | Mode | 1: | | | ROMPak | | |
| | hase Order: | | | | | | Vendor: | | | | Rotork C | ontrols Cana | da Ltd. | |
| Requ | isition Num | ber: | | | | | Job Numb | ber: | | | | | | |
| | | | | | | | | | | | | | | |
| | Fluid: | | | | | | Sodium | n Hydroxide | | | | | | |
| | Fluid State | t . | | | | | L | _iquid | | | | | | |
| | | | | | | | | | | | | | | |
| m | | | | Minimum: | | | Normal (Op | perating): | | | Maximum (Fu | l Scale): | Ur | nits: |
| Š | Flow: | | | 8 | | | 67 | 7 | | | 792 | | L | /hr |
| Ĕ | Pressure: | | | 60 | | | 60 |) | | | 60 | | Р | sig |
| P | Temperatu | ire: | | 15 | | | 20 |) | | | 30 | | ۰ | С |
| 8 | | | | | | | | | | | | | | |
| SS | Design Pre | essure: | | 150 | | Psig | Vapour P | Pressure Pv: | | | N/A | | | |
| SE | Design Ter | | | 10 to 50 | | °C | | sibility (Z): | | | N/A | | | |
| PROCESS CONDITIONS | Lower SG / | • | N/A | | | | Lower Vis | | | | N/A | | - | |
| ద | Higher SG | | 1.53 | | | | Higher Vis | | | | 36 | | - , | :P |
| | Pipe Rating | | N/A | | | | | Temperature: | | | 20 | | | C |
| | Pipe Mater | | PVC | | | | | ssification: | Non | Hazardous, 0 | | | | <u> </u> |
| | | | N/A | | | | Alea Clas | SSIIICAUOII. | INOII | riazai uous, (| Conosive | | | _ |
| | Special Co | ondition: | IN/A | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Value Tone | | I | | | | Maria | . D | | | 000 | | | |
| 7 | Valve Type: Body Size: | | | Ball Valve | | | | n Pressure: | | | 230 | Second and | P | sig |
| 10 | | | | 50mm | | | | nection Face: | | | Female 1 | | | |
| VALVE BODY | Body Mate | | | PVC | | | _ | ace Finish: | | | N | А | | |
| - N | Bonnet Sty | | | N/A | | | | on & Isolation: | | | | | | |
| Α | ANSI Class | | | 150 | | | Packing N | | | | EPDM | or Viton | | |
| | Ball Materia | al: | | PVC | | | Packing S | Style: | | | | | | |
| | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | |
| | Manufactu | rer: | | Chemline | | | Shaft Mat | | | | P\ | | | |
| _ | Model: | | | Type 21 True Union E | Ball Valve | | Stem Mat | | | | P\ | | | |
| TRIM | Size: | | | 50mm | | | Seal Mate | | | | EPDM | | | |
| F | Rated Cv: | | | 190 | | | Ball Mate | | | | P\ | /C | | |
| | Characteris | | | | | | Leakage | Class: | | | | | | |
| | Trim Type: | | | | | | | | | | | | | _ |
| | | | | | | | | | | | | | | |
| | A structure D | a a sala Mana | I | Matariand Mal | | | 0: | | | | | 2 | | |
| | Actuator D | | | Motorized Val | ve | | Size: | D W | | | 5 | U | | |
| | Manufactu | rer: | | ROTORK | | | | Position: | | | | | | |
| ЭR | Model: | | | ROMpak-2 | | | | Orientation: | | | Par | allei | | _ |
| λT | Direction: | | | | | | | me Open: | | | | | | s |
| 7). | Fail Position | | | Fail Last Positi | ion | | | me Close: | | | | | | s |
| ACTUATOR | Operating : | | | | | | Torque/Ti | hrust | | | 50 | | | lm |
| ۷ | Electrical | Voltage: | 120 | V | 1 | Ph | Pneu- | Air Supply | | Min | | Max | Units | |
| | Operation | FLA: | | | | А | matic | Pressure: | | N/A | | N/A | Psig | |
| | · | LRA: | | | | А | Operation | Bench Ran | ge: | | N/A | | Psig | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Stainless Steel Tag: XV-F880 | | | | | | Н | landwheel: | | | Y | es | | |
| | Positioner: | | | No | | | Limit | Switch Closed | d: | | Y | es | | |
| SN | | | | No | | | Limit | t Switch Open | | | Y | es | | |
| 01 | Gauges: | | | No | | | Sol | lenoid Valve: | | | N | 0 | | |
| OPTIONS | Bypass: | | | | | | Electric | cal Classificati | on: | | No | e 2 | | |
| 0 | Pilot Light: No | | | No | | | Ba | ckup Power: | | | N | 0 | | |
| | Marshalling Box: No | | | | | | | | | | | | | |
| | Marshalling Box: No | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | 1. Vendor t | to fill in or provide | relevant informati | | | | | | | | | | | |
| | | X, non-hazardous | | | | | | | | | | | | |
| ES | | | | d by the City via RFP 3 | 31-2014 no : | alternates or s | substitutes w | vill be accente | d. | | | | | |
| NOTES | a.iuidu | and models | | ,, | 5, 110 | | W | 3 4500016 | • | | | | | |
| ž | — | | | | | | | | | | | | | |
| | — | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol ۱ | /alve | | | | A SHEET | | REV. |
|----------------|--|---|-----------|----------------|---------------|-------------|--------------|------------------------|------------|-------------|---|----------|-------------|-------------|----------|-------|
| | 7 | | | | | | all Val | | | | SHEET | T-XV-F87 | 090 OF | 1 | | |
| | { G | | | | | NO. | DAT | | ali Vai | REVIS | NON | | BY | 1 CHK'D | PROC. | APPR. |
| | GROL | JP | | | | 0 | 2022-05 | | lee | | onstruction | | JP | RC | - 11 m | 111 m |
| | | | | | | - | 2022-0 | J-10 | 100 | ded for O | Distruction | | - 51 | RO | RU | RU |
| | | | | | | | | | | | | | | | <u> </u> | |
| Pr | oject: | | | | | | | | | | | | | | | |
| | | | | Serial No: | | | | | li | .oop Wiring | Diograms: | | | | | |
| TΑ | G NO: | XV- | -G87090 | Spec No: | | | | | _ | ine / Vesse | | | | 25-FC-PD0 | 3-0750 | |
| Asse | et No: | | | P&ID: | | 1-0101-F | PPID-G012- | -001 | _ | ine ID: | - I I I I I I I I I I I I I I I I I I I | Size: | | mm Sche | | DR11 |
| | | | | | | | | | | Manufacture | er: | | | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL\ | /E | | | N | Model: | | | R | OMPak | | |
| Purc | hase Order: | | | | | | | Vendor: | - | | | | Rotork Cor | trols Canad | da Ltd. | |
| Req | uisition Numb | oer: | | | | | | Job Numb | oer: | | | | | | - | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride |) | | | | | | |
| | Fluid State: | | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| <u>8</u> | | | | Minimum: | | | | Normal (Op | | | | Maxi | mum (Full S | icale): | | nits: |
| <u>S</u> | Flow: | | | 90 | | | | 250 | | | | | 250 | | | /hr |
| 님 | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| CONDITIONS | Temperatur | c. | L | 0 | | _ | | 20 | | | | | 30 | | | С |
| | Design Pres | ecuro: | | 150 | | | peig | Vapour Pr | roccuro E | Dv. | | | N/A | | | _ |
| PROCESS | Design Ten | | | -10 to 50 | | | psig °C | Compress | | | | | N/A N/A | | | |
| SOS | Lower SG / | | 1.39 | 10 10 00 | | | | Lower Vis | | | N/A | | | | | -1 |
| Б | Higher SG | | 1.46 | | | | | Higher Vis | | | N/A | | | | | _ |
| | Pipe Rating | | Class 150 | | | | | Ambient T | | ture: | | | 20 | | | C |
| | Pipe Materi | al: | HDPE | | | | | Area Clas | sification | n: N | Non Hazardous | , Corro | sive | | | _ |
| | Special Cor | ndition: | N/A | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| > | Valve Type | | | | Valve | | | Maximum | Pressur | e: | | | 230 | | p | sig |
| BODY | Body Size: | | | 15 | mm | | | Inlet Conn | nection F | ace: | | | Female Thi | readed | | |
| m | Body Mater | | | | /C | | | Flange Fa | | | | | N/A | | | |
| VALVE | Bonnet Styl | | | | /A | | | Lubrication | | ation: | | | | | | |
| Α | ANSI Class Ball Materia | | | | 50 /C | | | Packing M | | | | | EPDM or | Viton | | |
| | Ball Materia | ai. | | F | VC | | | Packing S | otyle. | | | | | | | |
| - | | | | | | | | | _ | | | _ | | | | |
| | Manufactur | er: | | Cher | mline | | | Shaft Mate | erial: | | | | PVC | | | _ |
| | Model: | | | Type 21 True U | Jnion Ball Va | alve | | Stem Mate | erial: | | | | PVC | | | |
| ≥ | Size: | | | 15 | mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| TRIM | Rated Cv: | | | 1 | 4 | | | Ball Mater | rial: | | | | PVC | | - | |
| | Characteris | itic: | | | | | | Leakage (| Class: | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Actuator De | | | | ed Valve | | | Size: | | | | | 50 | | | |
| | Manufactur Model: | er: | | | ORK | | | Mounting Actuator C | | | | | Paralle | ×1 | | |
| ACTUATOR | Direction: | | | KOW | pak-2 | | | Stroke Tin | | | | | Paralli | ei | | s |
| ΨŦ | Fail Position | n· | | Fail Last | Position | | | Stroke Tin | | | | | | | | s |
| 5 | Operating S | | | | | | | Torque/Th | | | | | 50 | | | lm |
| AC | | Voltage: | 120 | V | | 1 | Ph | | Air Sup | only | Min | | | ax | Units | _ |
| | Electrical Operation | FLA: | | | | | Α | Pneu- matic | Pressu | | N/A | | N | /A | Psig | |
| | | LRA: | | | | | Α | Operation | Bench | Range: | | N | I/A | | Psig | |
| | | | | | | | | • | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | teel Tag: | | | 87090 | | | | andwhee | | | | Yes | | | |
| ഗ | Positioner: Yes | | | | | | Switch C | | | | Yes | | | | | |
| Ń | | Air Set: No | | | | | | | Switch C | | | | Yes | | | |
| OPTIONS | Gauges: | | | | | | | | enoid Va | | | | No | 2 | | |
| ö | | Bypass: No Pilot Light: No | | | | | | | al Classi | | | | Note: | 4 | | |
| | Pilot Light: No Marshalling Box: No | | | | | | вас | ckup Pov | vel. | | | No | | | | |
| | Marshalling Box: No | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. NEMA 4X, non-hazardous area. | | | | | | | | | | | | | | | |
| ES | 3. Manufacturer and models were standardized by the City via RFF | | | | RFP 331-20 | 14, no alte | rnates or su | ubstitutes w | ill be acc | cepted. | | | | | | |
| NOTES | | manufacturer and models were standardized by the City via K | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | Cont | rol \ | /alve | | | | TA SHEET | | REV. |
|----------------|---|--|-----------|----------------|----------|-------------|--------------|--------------------|-------------------|--------------|----------------|----------|----------------|--------------|--------------|-------|
| | 7 | | | | | | all Val | | | | SHEET | T-XV-F87 | 095 OF | 1 | | |
| | { G | | | | | NO. | DAT | | ali Val | REVIS | ION | | BY | 1 CHK'D | PROC. | APPR. |
| | GROU | JP | | | | 0 | 2022-05 | | lee | | onstruction | | JP | RC | . 11 m | 111 m |
| | | | | | | - | 2022-0 | J-10 | 100 | ded for Oc | Jiistraction | | 31 | ito | RU | KLC |
| | | | | | | | | | | | | | | | | |
| Pr | oject: | | | | | | | | | | | | | | | |
| | | | | Serial No: | | | | | 1 | .oop Wiring | Diograms: | | | | | |
| TΑ | G NO: | XV- | -G87095 | Spec No: | | | | | | ine / Vessel | | | | 25-FC-PD0 | 3-0750 | |
| Asse | et No: | | | P&ID: | | 1-0101-F | PPID-G012- | -001 | | ine ID: | - Trainbon | Size: | | mm Sche | | DR11 |
| | | | | 1 | | | | | | Manufacture | r: | | | OTORK | | |
| Des | cription: | | | MOTORIZED | BALL VAL | /E | | | _ | Model: | | | | ROMPak | | |
| Purc | hase Order: | | | | | | | Vendor: | | | | | | ntrols Canad | da Ltd. | |
| Req | uisition Numb | ber: | | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | | | | | | Ferric | Chloride | 9 | | | | | | |
| | Fluid State: | | | | | | | Li | iquid | | | | | | | |
| | | | | | | | | | | | | | | | | |
| S | | | | Minimum: | | | I | Normal (Op | erating): | | | Maxi | mum (Full S | Scale): | Ur | nits: |
| ON | Flow: | | | 90 | | | | 250 |) | | | | 250 | | L | /hr |
| Ë | Pressure: | | | 60 | | | | 60 | | | | | 60 | | | sig |
| CONDITIONS | Temperatur | re: | | 0 | | | | 20 | | | | | 30 | | | C |
| | | | | | | | | | | | | | | | | |
| ESS | Design Pre | | | 150 | | | psig | Vapour Pr | | | | | N/A | | | |
| PROCESS | Design Ten | | 4.20 | -10 to 50 | | | °C | Compress | | | 1/4 | | N/A | | L | _[] |
| PR | Lower SG / | | 1.39 | | | | | Lower Vis | | | I/A I/A | | | | | _ |
| | Higher SG / | | Class 150 | | | | | Higher Vis | | | W/A | | 20 | | | °C |
| | Pipe Materi | | HDPE | | | | | Area Clas | | | Non Hazardous | Corro | | | | |
| | Special Cor | | N/A | | | | | 7 lica Olas | Sincation | | 401111a2a1a0a3 | , 00110 | 75140 | | | |
| | opeoidi ooi | namon. | 1471 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Valve Type | : | | Ball V | /alve | | | Maximum | Pressure | e: | | | 230 | | р | sig |
| BODY | Body Size: | <i>*</i> | | | mm | | | Inlet Conn | nection F | ace: | | | Female Th | readed | | |
| BC | Body Mater | rial: | | PV | /C | | | Flange Fa | ace Finish | h: | | | N/A | | | |
| VALVE | Bonnet Styl | le: | | N/ | /A | | | Lubrication | n & Isola | ation: | | | | | | |
| ¥Γ | ANSI Class | s: | | 15 | 50 | | | Packing M | Material: | | | | EPDM or | Viton | | |
| > | Ball Materia | al: | | PV | /C | | | Packing S | Style: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Manufactur | er: | | Chen | | | | Shaft Mate | | | | | PVC | | | |
| 5 | Model: Size: | | | Type 21 True U | | aive | | Stem Mate | | | | | PVC EPDM or | | | |
| TRIM | Rated Cv: | | | 1/4 | | | | Ball Mater | | | | | PVC | | | |
| Н | Characteris | stic: | | | <u> </u> | | | Leakage (| | | | | 1 10 | | | |
| | Trim Type: | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Actuator De | escription: | | Motorize | ed Valve | | | Size: | | | | | 50 | | | |
| | Manufactur | er: | | ROTO | ORK | | | Mounting | Position: | | | | | | | |
| Ä | Model: | | | ROM | pak-2 | | | Actuator C | Orientatio | on: | | | Parall | el | | |
| 5 | Direction: | | | | | | | Stroke Tin | | | | | | | | s |
| ACTUATOR | Fail Position | | | Fail Last | Position | | | Stroke Tin | |): : | | | | | | s |
| \tilde{c} | Operating S | | | | | | | Torque/Th | hrust | | | | 50 | | | ١m |
| _ | Electrical | Voltage: FLA: | 120 | V | 1 | ı | Ph | Pneu- | Air Sup Pressu | | Min | | | lax | Units | _ |
| | Operation | LRA: | | | | | A A | matic Operation | | Range: | N/A | N | I/A | I/A | Psig Psig | |
| | | LNA. | | | | | A | | Dench | Kange. | | 18 | /A | | Fsig | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | teel Tag: | | XV-F8 | 37095 | | | H | landwhee | el: | | | Yes | | | |
| | Stainless Steel Tag: XV-F87095 Positioner: No | | | | | | | Switch CI | | | | Yes | | | | |
| SN | Air Set: | | | | | | | Switch C | | | | Yes | | | | |
| OPTIONS | Gauges: | | | | lo | | | | enoid Va | | | | No | | | |
| P | Bypass: | | | | 0 | | | Electrica | al Classif | fication: | | | Note | 2 | | |
| 0 | Pilot Light: | | | | lo | | | Bac | ckup Pow | ver: | | | No | | | |
| | Marshalling Box: No | | | lo | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Vendor to fill in or provide relevant information in empty field. | | | | | | | | | | | | | | | |
| S | 2. NEMA 4X, non-hazardous area. | | | | | | | | | | | | | | | |
| NOTES | 3. Manufact | 3. Manufacturer and models were standardized by the City via RFI | | | | 14, no alte | rnates or su | ubstitutes w | vill be acc | cepted. | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| | — | | | | | | | | | | | | | | | -[|

| | | | | | Control Valve | | | | | | | | | REV. | | |
|--|-------------------|------------------------|----------------------|-------------------|---------------|--|---------------------|----------|-------------|---------|-------------------------|-------------|---------|-------|--|--|
| KGS | | | | | | | | | | | DST-XV-F87150 SHEET 1 0 | | | 1 | | |
| | | | | | DAT | | Ball Valve REVISION | | | | | | | | | |
| | GROUP | | | | | | | | | | BY JP | CHK'D | PROC. | APPR | | |
| | | | | 0 | 2022-0 | 5-18 | Issued fo | r Cons | truction | RC | RU | KW | | | | |
| | l | | | | | _ | | | | | | | | + | | |
| Project: | | | | | | | | | | | | | | + | | |
| | | | | | | | | | | | | | | | | |
| TAG NO: | χV | -Y87150 | Serial No: | | | | Loop W | | | _ | | | | | | |
| | | | Spec No: | | | | | essel Nu | ımber: | | | 25-FC-PD0 | | _ | | |
| Asset No: | | | P&ID: | 1-0101- | PPID-Y001 | -001 | Line ID: | | | Size: | | | edule: | DR11 | | |
| Description: | | | MOTORIZED BAL | L VALVE | | | Manufa | cturer: | | | | ROTORK | | | | |
| | | | | | | | Model: | | | | | ROMPak | | | | |
| Purchase Order: | | | | | | Vendor: | | | | | Rotork Cor | ntrols Cana | da Ltd. | | | |
| Requisition Num | iber: | | | | | Job Numb | ber: | | | | | | | | | |
| Fluid: | | | | | | Ecolo | Obleside | | | | | | | | | |
| | | | | | | | Chloride | | | | | | | | | |
| Fluid State | * | | | | | | iquid. | | | | | | | | | |
| | | | Minimum: | | | Normal (On | oratina): | | | Movie | mum (Full S | Coolo): | 116 | nits: | | |
| S Flow: | | | 90 | | <u> </u> | Normal (Op 250 | | | | IVIAXII | 250 | ocale). | | _/hr | | |
| Pressure: | | | 60 | | | 60 | | | | | 60 | | | | | |
| Temperatu | Iro. | | 0 | | | 20 | | | | | 30 | | | °C | | |
| O | | L | | | | 20 | | | L | | 30 | | | الت | | |
| Flow: Pressure: Temperatu O Design Ter Design Ter Lower SG | essure. | | 150 | | psig | Vanour P | ressure Pv: | | | | N/A | | | | | |
| Design Ter | | | -10 to 50 | | °C | | sibility (Z): | | | | N/A | | - | | | |
| Lower SG | | 1.39 | 70 10 00 | | | Lower Vis | | N/A | | | | | | | | |
| Higher SG | | 1.46 | | | | Higher Vis | | N/A | | | | | —[| | | |
| Pipe Rating | | Class 150 | | | | 1 | Temperature: | IN/A | | | 20 | | | °C | | |
| Pipe Mater | | HDPE | | | | | ssification: | Non | Hazardous | Corro | | | | | | |
| Special Co | | N/A | | | | 7 ii da Gido | | 14011 | T Idzardodo | , 00.10 | | | | | | |
| оробіа: об | maillorn. | | | | | | | | | | | | | | | |
| | | | | | | | | _ | | _ | | | | | | |
| Valve Type | 9: | | Ball Valve | 9 | | Maximum | Pressure: | | 230 | | | | | sig | | |
| Body Size: | | | 15mm | | | Inlet Connection Face: | | | | | Female Th | readed | | | | |
| Body Mate | rial: | PVC | | | | Flange Face Finish: Lubrication & Isolation: | | | | | N/A | | | | | |
| Body Size: Body Mate Bonnet Sty ANSI Class | Bonnet Style: N/A | | | | | | | | | | | | | | | |
| ANSI Class | ANSI Class: | | 150 | | | Packing N | Material: | | | | EPDM or | Viton | | | | |
| > Ball Materi | al: | PVC Packing Style: | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Manufactu | rer: | | Chemline | Shaft Material: | | | | | | | | | | | | |
| Model: | | Type 21 True Union Bal | | | | Stem Mat | terial: | | | | PVC | ; | | | | |
| Size: Rated Cv: | | | 15mm | | | Seal Mate | erial: | | | | EPDM or | | | | | |
| Rated Cv: | | | 14 | | | Ball Mate | rial: | | | | PVC | | | | | |
| Characteris | | | | | Leakage (| Class: | | | | | | | _ | | | |
| Trim Type: | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| A etuetes D | and a sinting. | | Motorized Va | ali co | | Size: | | | | | 50 | | | | | |
| Actuator D Manufactu | | | ROTORK | | | Mounting Position: | | | 35 | | | | | | | |
| Modeli | 101. | | ROTORK ROMpak-: | | | Actuator Orientation: Stroke Time Open: | | | Parallel | | | | | [| | |
| Direction: Fail Position Operating | | | NONIPAK- | | | | | | | | ı aıdlı | ·· | | s | | |
| Fail Position | on: | | Fail Last Pos | ition | | Stroke Time Close: | | | | | | | | s | | |
| Operating | | | | | | Torque/Th | | | | | 50 | | | Nm | | |
| A | Voltage: | 120 | 120 V 1 | | Ph | | Air Supply | innly | Min | | | lax | Units | _ | | |
| Electrical | FLA: | | | | A | Pneu- matic | Pressure: | | N/A | | N | I/A | Psig | _ | | |
| Operation | LRA: | | | | А | Operation | Bench Range | : | | N | | | Psig | _ | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Stainless S | Steel Tag: | XV-F87150 | | | | | Handwheel: | | | | | Yes | | | | |
| Positioner: | | | No | | | Limit | Switch Closed: | | Yes Yes | | | | | | | |
| Air Set: | | | No | | | Limit | Switch Open: | | | | | | | | | |
| Gauges: | | | | | | Sole | enoid Valve: | | No | | | | | | | |
| Air Set: Gauges: Bypass: | | | No | | | Electric | al Classification | : | | | Note | 2 | | | | |
| Pilot Light: | | | | | | Bad | ckup Power: | | | | No | | | | | |
| Marshalling | g Box: | | No | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | e relevant information | on in empty field. | | | | | | | | | | | [| | |
| O 2. NEMA 4 | X, non-hazardou | | I house Object - DES | 224 2044 " | | ala mata | di ba az t - 1 | | | | | | | [| | |
| 3. Manufac | curer and models | s were standardized | by the City via RFP | აპ1-∠∪14, no alte | ernates or st | w setutizau | viii be accepted. | | | | | | | — | | |
| ž — | | | | | | | | | | | | | | — | | |
| | | | | | | | | | | | | | | — | | |

| | | | | | Control Valve | | | | | | | | | REV. | |
|--------------------|--------------------------|----------------------|----------------------|---------------------|------------------|---------------|---|----------------------|----------|---------------|-------------------|---------------|-------------|-----------------|---------------|
| | 7 | | | | | | | | | | | DST-XV-F87155 | | | 0 |
| KGS | | | | | NO. | | all Valve | | | | SHEET 1 BY CHK'D | | OF | 1 | |
| _ | GROUP | | | | | DAT | | | | | | | CHK'D | PROC. | APPR |
| | OROC | J F | | | 0 | 2022-0 | 5-18 | Issued fo | r Cons | truction | | JP | RC | RU | RW |
| | | | | | | | | | | | | | | <u> </u> | + |
| Pro | oject: | | | | | | | | | | | | | <u> </u> | + |
| | ., | | | | | | | | | | | | | | |
| TA | G NO: | χV | -Y87155 | Serial No: | | | | Loop Wi | | | | | | | |
| | | | | Spec No: | | | | Line / Ve | essel Nu | ımber: | | | 25-FC-PD0 | 3-0774 | |
| Asse | t No: | | | P&ID: | 1-0101- | PPID-Y001 | -001 | Line ID: | | | Size: | | | edule: | DR11 |
| Desc | cription: | | | MOTORIZED BAL | L VALVE | | | Manufac | turer: | | | R | ROTORK | | |
| | | | | | | | | Model: | | | | F | ROMPak | | |
| Purcl | hase Order: | | | | | | Vendor: | | | | | Rotork Cor | ntrols Cana | da Ltd. | |
| Requ | uisition Numb | ber: | | | | | Job Numb | ber: | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | |
| | Fluid State: | | | | | | L | iquid | | | | | | | |
| | | | | | | | | | | | | (5.11.6 | | | |
| ര് | E1 | | | Minimum: | | | Normal (Op | | | | Maxii | mum (Full S | scale): | | nits: |
| ģ | Flow: | | | 90 | | | 250 | | | | | 250 | | | _/hr |
| 듬 | Pressure: | | | 60 | | | 60 | | | | | 60 | | | osig |
| O | Temperatur | ie: | | 0 | | | 20 | | | Ц | | 30 | | | °C |
| PROCESS CONDITIONS | Decimo S | | | 450 | | | Ver - | D. | | | | NI/A | | | |
| ES | Design Pre | | | 150 | | psig | | ressure Pv: | | | | N/A | | $-\!\!+\!\!\!-$ | |
| OC | Design Ten | | 1.00 | -10 to 50 | | °C | Compress | | | | | N/A | | L | [|
| PR | Lister SC | | 1.39 | | | | Lower Vis | | N/A | | | | | | |
| | Higher SG | | 1.46 | | | | Higher Vis | | N/A | | | | | | |
| | Pipe Rating | | Class 150 | | | | | Temperature: | Non | l lamanda | 0 | 20 | | L_` | °C |
| | Pipe Materi | | HDPE | | | | Area Clas | ssification: | Non | Hazardous, | , Corro | sive | | _ | |
| | Special Cor | ndition: | N/A | | | | | | | | | | | | |
| _ | | | | | | | | | | | | | | | |
| | Value Tune | | | Ball Valve | | | Massinasson | December | | | | 230 | | | aia. |
| ≿ | Valve Type Body Size: | | | 15mm | | | Maximum Pressure: Inlet Connection Face: | | | | | Female Th | readed | | osig |
| ğ | | | | PVC | | | | | | | | N/A | readed | | _ |
| Ш | Bonnet Styl | - | | | | | Flange Face Finish: Lubrication & Isolation: | | | | | IN/A | | | _ |
| VALVE BODY | ANSI Class: | | | 150 | | | Packing Material: | | | EPDM or Viton | | | | | |
| > | Ball Materia | | | PVC | | | Packing S | | | | | LI DIVI OI | VILOII | | |
| | | | | | | | | .,, | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Manufactur | rer: | | Chemline | | | Shaft Mat | terial: | | | | PVC | | | |
| | Model: | | | Type 21 True Union | Ball Valve | | Stem Mat | erial: | | | | PVC | ; | | |
| ≥ | Size: | | | 15mm | | | Seal Mate | erial: | | | | EPDM or | Viton | | |
| TRIM | Rated Cv: | | | 14 | | | Ball Mate | rial: | | | | PVC | | | |
| | Characteris | stic: | | | | Leakage (| Class: | | | | | | | | |
| | Trim Type: | | | | | | | | | | | | | | |
| | | | • | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | Actuator De | escription: | | Motorized Va | alve | | Size: | | | | | 50 | | | |
| | Manufactur | rer: | | ROTORK | • | | Mounting Position: | | | | | | | | |
| ĸ | Model: | | | ROMpak-2 | 2 | | Actuator Orientation: | | | | | | el | | |
| 2 | Direction: | | | | | | Stroke Time Open: | | | | | | | s | |
| -T | Fail Position | | | Fail Last Pos | ition | | Stroke Tir | | | | | | | | S |
| ACTUATOR | Operating S | | | | | | Torque/Th | hrust | | | | 50 | | | Nm |
| ⋖ | Electrical | Voltage: | 120 | 120 V 1 | | Ph | Pneu- | Air Supply | | Min | | M | lax | Units | S |
| | Operation | FLA: | | | | A | matic Operation | Pressure: | | N/A | | | I/A | Psig | _ |
| | | LRA: | | | | А | Operation | Bench Range: | | | N. | /A | | Psig | |
| | | | | | | | | | | | | | | | |
| | Chairte | Neel Town | | M. 500:- | - | | | | | | | | | | |
| | Stainless S | | | XV-F8715 | 5 | | | landwheel: | | Yes | | | | | |
| S | Positioner: | | | No | | | | Limit Switch Closed: | | Yes | | | | | _ |
| Ö | Air Set: | | | No | | | | Switch Open: | | Yes | | | | | |
| OPTIONS | Gauges: | | | No | | | | enoid Valve: | _ | | | No | 2 | | — |
| ō | Bypass: | | | No | | | | al Classification | | | | Note | _ | | —[|
| | Pilot Light: No | | | | | Bad | ckup Power: | | | | No | | | — | |
| | Marshalling | J DUX. | | No | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 1 Vandar | o fill in or provide | e relevant informati | on in empty field | | | | | | | | | | | |
| | | X, non-hazardou | | on in empty neia. | | | | | | | | | | | $-\mathbf{I}$ |
| S | | | | by the City via RFP | 331-2014 no alte | ernates or si | ubstitutee u | vill be accepted | | | | | | | - |
| NOTES | | and models | | ., on, nam | | | | accepted. | | | | | | | $-\mathbf{I}$ |
| ž | | | | | | | | | | | | | | | $-\mathbf{I}$ |
| | - | | | | | | | | | | | | | | - |

| KGS | | | | Flowmeter Instrument | | | | | | | DAT | REV. | | | | | |
|------------|--|-------------------|--------------------------------|-----------------------------|--------------|--------------|--------------------|--------------------------|-----------------------|------------------------------------|----------------|---------------|-----------------------------|---------------|-------|--|--|
| | | | | | | | | | | | DST-FIT-F07804 | | | 0 | | | |
| | | | | | | | Magne | | | | SHEET | 1 | OF | 1 | | | |
| | GROL | | | | NO. | DAT | | | | REVISION | | | CHK'D | PROC. | APPR. | | |
| | OROL | , - | | | 0 2022-07 | | 7-13 | | Issued for | Addendum | | NP | AF | gas | gas | | |
| | | | | | | | | | | | | | | | | | |
| Pro | ject: | | 21-0107 | -015 | | | | | | | | | | | | | |
| | • | | | | | | | | I. 147 | · D: | | 1.0 | 101 111 1 | F000 001 | | | |
| TA | G NO: | FIT- | F07804 | Serial No | | | | | | ring Diagram | _ | | 101-AILD- | | | | |
| A | - t NI | | | Spec No: | 1.0101 | DDID FOOD | 2 001 | | | ssel Numbe | | | 5-FC-PV0 | | | | |
| ASS | et No: | | | P&ID: | 1-0101-1 | PPID-F009 | 9-00 I | | Line ID: | | Siz | | mm Sch iemens | eaule: | | | |
| Des | cription: | MAGI | NETIC FLOWME | TER TRANSMITTER \ | WITH LOC | CAL INDIC | ATIO | N | Manufact Model: | turer: | Sitron | | F M Mag 6000 & F M Mag 1100 | | | | |
| Purc | hase Orde | er: | | | | | Ven | dor: | woder. | | Silian | | ans-West | ivi iviay i i | 00 | | |
| - | uisition Nu | | | | | | 4 | Number: | | | | - 111 | ans-west | | | | |
| rieq | uisition ivu | mber. | | | | | 300 | Number. | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | _ | | |
| | Fluid: Fluid State: | | Liquid | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | |
| Ō | Process Da | ata Case (Flow:) | | Minimum: | | 1 | Norma | al (Operating | g): | | Max | rimum (Full S | Scale): | Uı | nits: | | |
| E | Flow: | | | 90 | | | | 1500 | , | | | 1700 | , | L | /hr | | |
| 불 | Pressure: | | | 80 | | | | 80 | | | | 80 | | р | sig | | |
| CONDITIONS | Temperatu | re: | | 15 | | | | 20 | | | | 30 | | | .C | | |
| | | | | | | | | | | | | | | | | | |
| 説 | Design Pressure: | | | 80 | | psig | Vapo | or Pressure | Pv: | | | N/A | | | | | |
| ROCESS | Design Ten | mperature: | | 15 to 30 | | °C | Visc | osity: | | | | N/A | | | | | |
| PH | Lower SG / | Density: | | 1.39 | | | Com | pressibility | (Z): | | | N/A | | | | | |
| | Higher SG / Density: | | | 1.46 | | | Spec | cial Conditio | n: | | | N/A | | | | | |
| | Pipe Material: | | | PVC | | | | | | | | | | | _ | | |
| | | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | | |
| | Connection Size: | | | | | | | nting Orienta | ation: | | | | | | _ | | |
| | End Connection: End Connection Material: | | | | | | | nting Kit: | - · · | N | | | | | | | |
| ER | Lining Material: | | Note 2 | | | | - | ge / Wafer F ge Type: | rating: | Note 2 Note 2 | | | | | | | |
| | Lining Protector: | | Note 2 | | | | | ge Material: | | Note 2 | | | | | | | |
| M | Electrode Type: | | Note 2 | | | | | v. Operating | | Note 2 | | to | | | | | |
| | Electrode Material: | | Note 2 | | | | _ | osure Class | | NEMA 4X | | ιο | | | | | |
| | Grounding | | | | | | _ | nent Model N | | Note 2 | | | | | | | |
| | | 3 - | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Stainless S | steel Tag: | FIT-F07804 | | | | Wett | ed O-Ring N | Material: | | | | | | | | |
| | Application | : | | | | | Fill F | ·luid: | | | | | | | | | |
| | Type: | | | | | Elevation: | | | | | | | | | | | |
| H | Enclosure (| Class: | NEMA 4X | | | Supp | Suppression: | | | | | | | | | | |
| Ë | Housing: | | Fiberglass-Reinforced Polymide | | | | Instrument Range: | | je: | | | to | | | | | |
| TRANSMITT | Mounting: | | Local | | | Calib | Calibration Range: | | | | to | | | | | | |
| S | Signal / Pro | | Profibus | | | _ | | troller Displa | | | | to | | | | | |
| AA A | Power Sup | • • | 24 VDC | 24 VDC | | | | Static Pressure Range: | | | | to | | | | | |
| Ë | Electrical C | Connection: | 4x1/2" NPT | | | | | | Allow. Oper Pressure: | | | | to | | | | |
| | Accuracy: | | 0.25% | | | | - | v. Oper Tem | - | | | to | | | | | |
| | Response | | | | | | 4 | imum Static | Pressure | | | | | | | | |
| | Element Ma | aterial: | | | | | Manufacturer: | | | Siemens Sitran F M Mag Series 6000 | | | | | | | |
| (0 | | | | | | | Mod | er: | | Sitran F M M | ag Serie | es 6000 | | | | | |
| Š | Integral Me | tor: | T | | | | Hude | ostatic Test | ing: | | | | | | | | |
| | Scale: | | | | | | _ | nting Bracke | | | | | | | | | |
| OPTIONS | J0410. | | | | | | wou | y Dracke | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | |
| | 1. Manufac | turer and models | were standardized | I by the City via RFP 449-2 | 2014, no alt | ernates or s | ubstit | utes will be | accepted. | | | | | | | | |
| | | ion to be provide | | | | | | | • | | | | | | | | |
| NOTES | | | d Profibus PA Mode | ule. | | | | | | | | | | | | | |
| OT | | | | | | | | | | | | | | | | | |
| Z | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| | | | | | Flov | vm | eter lı | | DATA SHEET NO. DST-FIT-F07814 | | | | | | | |
|----------------------|--|------------------|--------------------|---------------------------|-------------------------|-----------------------------------|---------|--------------------------|--------------------------------|------------------|---------------|---|-----------|-------|--|--|
| KGS | | | | | Magnetic | | | | | | | | OF | 1 | | |
| | V | | | | NO. | DAT | | | | | | | PROC. | APPR. | | |
| | GROU | IP | | | 0 | 2022-0 | | | | Addendum | | | 943 | gas | | |
| | | | | | _ | 2022 0 | 77 10 | | 133464 101 | Addendam | INI | Ai | | | | |
| | | | | | | | | 1 | | | | | | | | |
| Project: 21-0107-015 | | | | | | | | | | | | | | | | |
| | | | | Serial No | | | | 1 | Loon Wir | ing Diagrams: | 1.4 | 1101-ΔII D. | .F253-001 | 1 | | |
| TΑ | G NO: | FIT- | F07814 | Spec No: | | | | | | ssel Number: | | | | | | |
| Αςς | et No: | | | P&ID: | 1-0101- | PPID-F00 | 9-001 | | Line ID: | | | | | | | |
| | | | | | | | | | Manufact | | | Siemens | | | | |
| Des | cription: | MAGN | NETIC FLOWME | TER TRANSMITTER \ | WITH LOC | CAL INDIC | CATIC | N | Model: | | | F M Mag 6000 & F M Mag | | | | |
| Pur | chase Orde | r: | | | | | Ven | idor: | | | | | | - | | |
| | uisition Nur | | | | | | _ | Number: | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Fluid: | | Ferric Chloride | | | | | | | | | | | | | |
| | Fluid State: | : | Liquid | | | | | | | | | | | | | |
| NS | | | · | | | | | | | | | | | | | |
| CONDITIONS | Process Da | ata Case (Flow:) | | Minimum: | | | Norma | al (Operating | g): | N | Maximum (Full | Scale): | U | nits: | | |
| E | Flow: | | | 90 | | | | 1500 | | | 1700 | | L | /hr | | |
| Z | Pressure: | | | 80 | | | | 80 | | | 80 | | р | sig | | |
| 8 | Temperature: | | | 15 | | | | 20 | | | 30 | DST-FIT-F0781 HEET 1 BY CHK'D I NP AF 1 1-0101-AILD-F2 25-FC-PV04- 15mm Sched Siemens Trrans-West 1 (Full Scale): 1700 80 30 AA AA N/A | | °C | | |
| PROCESS | | | | | | | | | | | | | | | | |
| Ä | Design Pressure: | | | 80 | | psig | Vap | or Pressure | Pv: | | N/A | | | | | |
| 0 | Design Ten | nperature: | | 15 to 30 | | °C | Visc | osity: | | | N/A | | | | | |
| H. | Lower SG / | Density: | | 1.39 | | | Con | pressibility | (Z): | | N/A | | | | | |
| | Higher SG / Density: | | | 1.46 | | | Spe | cial Conditio | on: | | N/A | 4 | | | | |
| | Pipe Material: | | | PVC | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | |
| | Connection Size: | | | | | | _ | inting Orient | tation: | | | | | | | |
| | End Connection: | | | | | | _ | inting Kit: | | | | | | | | |
| ER | End Connection Material: Lining Material: | | N | | | | _ | ge / Wafer | Rating: | Note 2 | | | | - | | |
| Ë | Lining Material: Lining Protector: | | Note 2 Note 2 | | | | | ge Type: ge Material: | | Note 2 Note 2 | | | | | | |
| ME | | | Note 2 | | | | _ | w. Operating | | Note 2 | to | | - | | | |
| | Electrode Material: Note 2 | | | | | | _ | losure Class | | NEMA 4X | ιο | 10 | | | | |
| | Grounding | | 1002 | | | | | nent Model | | Note 2 | | | _ | | | |
| | | 9 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | Stainless S | teel Tag: | FIT-F07804 | | | | Wet | ted O-Ring | Material: | | | | | | | |
| | Application | | | | | | _ | Fluid: | | | | | | | | |
| | Type: | | | | | Elev | ation: | | | | | | | | | |
| ER | Enclosure (| Class: | NEMA 4X | | | | Sup | pression: | | | | | | | | |
| E | Housing: | | Fiberglass-Reinfo | rced Polymide | | | Instr | ument Ranç | ge: | | to | | | | | |
| M | Mounting: | | Local | | | | Calil | bration Ran | ge: | | to | | | | | |
| TRANSMIT | Signal / Pro | | Profibus | - | | | _ | troller Displa | - | | to | | | | | |
| ¥. | Power Supp | | 24 VDC | | | | _ | ic Pressure | | | to | | | | | |
| 片 | Electrical C | onnection: | 4x1/2" NPT | | | | | w. Oper Pre | | | to | | | | | |
| | Accuracy: | | 0.25% | | | Allow. Oper Temperature: | | | | to | | | | | | |
| | Response Time: | | | | Maximum Static Pressure | | | | | | | | | | | |
| | Element Ma | aterial: | | | | | | ufacturer: | | Siemens | | | | | | |
| W. | | | | | | Model: Sitran F M Mag Series 6000 | | | | | | | | | | |
| ź | | | | | | | | | | | | | | | | |
| \exists | Integral Me | ter: | | | | | _ | rostatic Tes | | | | | | | | |
| OPTIONS | Scale: | | | | | | Mou | inting Brack | ets: | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1 Manufac | turer and models | s were standardize | d by the City via RFP 449 | -2014 no s | alternates o | nr sube | stitutes will h | ne accented | | | | | | | |
| | | on to be provide | | , alo on, via i i i 440 | | | ວັນນີ້ | | accepted | | | | | | | |
| ES | | | rd Profibus PA Mod | dule. | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | |
| ž | | | | | | | | | | | | | | | | |
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