

Specifications – pH Sensor for Uranium

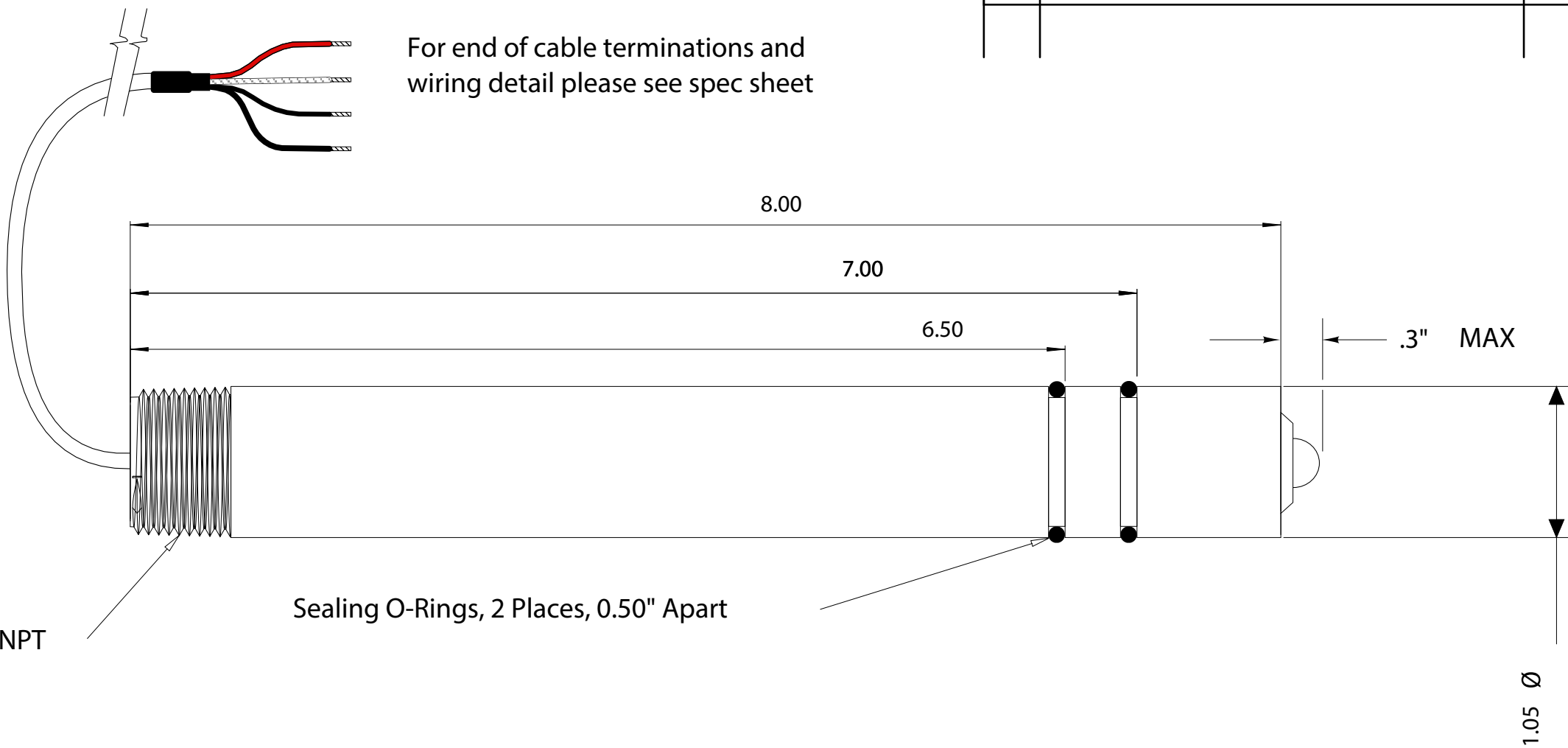
| General Specifications | |
|---------------------------------|--|
| Description | pH Sensor for Uranium |
| Part Number | TT-Uranium-pH-2116 |
| pH Range | 0 to 14 pH |
| Temperature Range | -5 to 105°C |
| Pressure | 6.9 to 1035 kPa (1 to 150 psig) |
| Body Type | RADEL (Poly-Phenyl-Sulfone) with Double O-Ring Front & 3/4" Back End MNPT |
| Junction Material | KYNAR (Poly-Vinylidene-Fluoride) |
| Dimensions | 211mm Length, Maximum Diameter 26.7mm |
| Cable Length | 6m |
| Temperature Compensation | Pt1000 |
| Preamplifier | Not Fitted |
| Waterproofing | Immersible, Submersible if threaded on sealed immersion rod with sufficient sealing tape |
| Connection | Hard Wired Tinned Leads for Sensor & TC |
| Special Features | Acid/Fluoride, Slurry, Sulphide, Organic and Resistant, Teflon Silicon Sealing |
| pH Sensor Specifications | |
| Measuring Glass Type | Hemispherical, Green Glass (MUGG) |
| Glass Dimensions | 8.0mm (0.315") Diameter |
| Initial Impedance | < 800 M Ohms @ 25°C |
| Sodium Ion Error | < 0.15 pH in Na ⁺ solutions at pH 14.00 |
| Acidic Errors | < 0.05 pH in HCl solutions at 0.00 pH |
| Reference System Specifications | |
| Type | Triple Junction |
| Reference Half Cell | Ag/AgCl, Saturated KCl |
| Primary & Secondary Junction | Porous Ceramic, Saturated KCl in Cross-linked polymer, interfaced to Tertiary Junction |
| Tertiary Junction | Solid-State Non-Porous Cross-Linked Polymer embedded in Kynar Support Matrix holds excess KCl assuring saturation at all temps for stability & long sensor service life. |
| Application Specifications | |
| Recommended Applications | Specifically designed for the Uranium industry. Any process media containing free sulfide species such as hydrogen sulfide gas (H ₂ S), hydrogen sulfide (HS ⁻) or sulfide ions (S ²⁻). Any measurement where aggressive chemical cleaning is needed to remove fouling or low-maintenance operation is required with minimal cleaning and re-calibration. |
| Analyser / Interface | All Turtle Tough pH Analysers |
| Storage | Item should be kept at room temperature with closed protector cap, filled with storage solution in an upright position. Shelf life warranted for 12 months from the date of purchase. |
| Warranty | 12 Month Conditional Warranty Please see www.turtletoough.com.au/support/warranty-returns |

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| REVISION HISTORY | | | |
|------------------|-------------|------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| | | | |



For end of cable terminations and wiring detail please see spec sheet

8.00

7.00

6.50

.3" MAX

Sealing O-Rings, 2 Places, 0.50" Apart

3/4"-14 NPT

1.05 Ø

NOTES

1. All dimensions are in inches, unless otherwise indicated with tolerances as detailed below.
2. Sensor body material of construction is RADEL, PEEK or RYTON.
3. O-ring material of construction is Viton-75 standard; CV75, Simriz 485 & Kalrez 4079 Optional.
4. Drawing as shown is without protective tines. The maximum displacement of the sensor past the end of the body in this configuration is 0.30" inches yielding a max overall length of 8.30 inches.
5. With Protective tines (4 places, 90 degrees apart or 2 places, 180 degrees apart) configuration, overall sensor length is 8.00 inches.
6. This sensor is only for use with Turtle Tough supplied sanitary and valve retractable sensor holders.
7. See installation procedures for proper insertion



TURTLE TOUGH

Turtle Tough Sensors
www.turtletough.com.au

| TOLERANCES | |
|------------------|-------------------|
| 1 Place: ± .1 | 3 Places: ± .005 |
| 2 Places: ± .01 | 4 Places: ± .0005 |
| Angular: ± 0.25° | |

| |
|--------------------|
| DRAWN BY RH |
| CHECKED BY TADP |
| APPROVED BY MJP |

| | | | |
|---|----------------------------|--------------------------------------|-----------------|
| TITLE Sensor for Sanitary & HOT-TAP/Retractable Use | | | |
| SIZE B | PROJECT SAN / VR | DRAWING NO. 5-1 pH SENSORS | REV / |
| SCALE Not to Scale | MODEL 5X31, 5X41, 5X51 | SHEET 1 | OF 1 |

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