

Instrumentation Cable

Description

Syscor's sensor probes are manufactured with instrumentation cable specifically designed and certified for applications in the petroleum industry. The robust, chemically resistant insulation protects from extreme environmental conditions and UV radiation. In addition, the cable is shielded to reject electromagnetic interference.

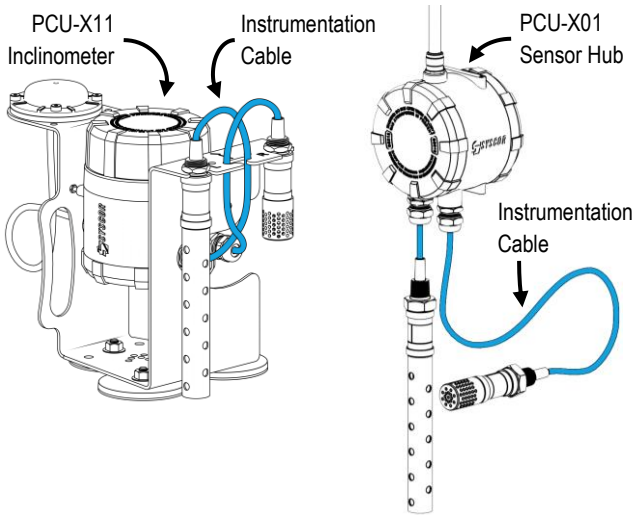


Figure 1. Instrumentation cable attaching HCD/HCDW Probes to a PCU-X01 Sensor Hub and a PCU-X11 Inclinometer.

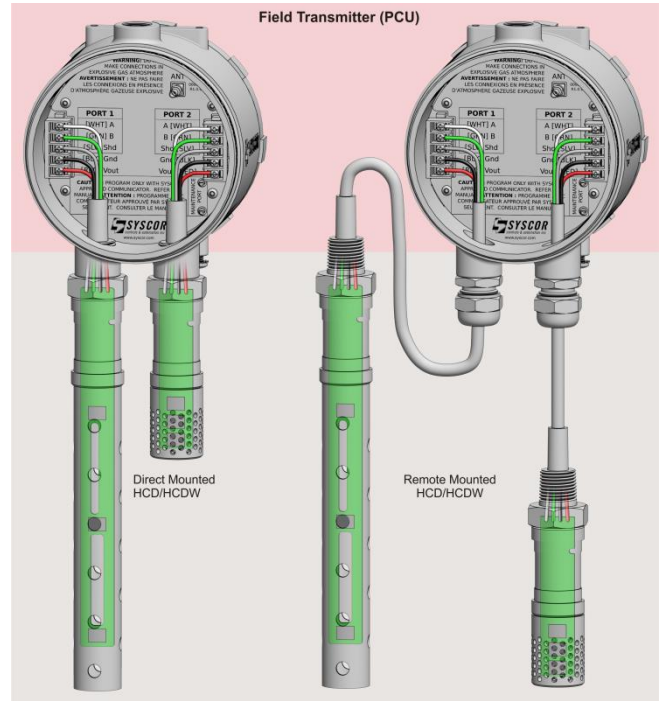
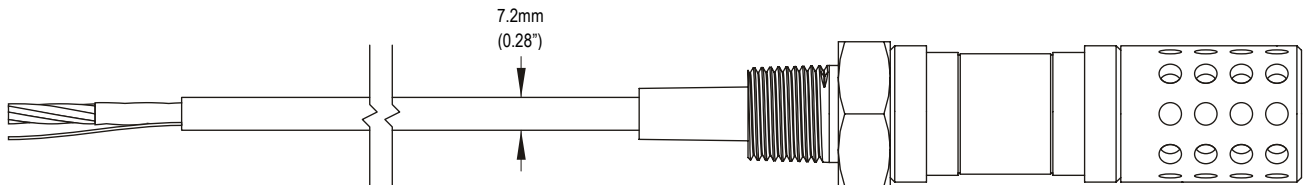


Figure 2. Wiring Diagram



If one sensor probe is used, total cable length for Intrinsically Safe operation cannot exceed 10.05m (33ft.). If two sensor probes are used, total combined cable length for Intrinsically Safe operation cannot exceed 10.05m (33ft.).

Specifications

| Construction | |
|----------------|---|
| Component 1 | 4 x 1 COND Conductor: 20 (7/28) AWG Tinned Copper Insulation: 0.016 inch. Wall, Nom. TPE |
| Colour Code | Black, Red, White, Green |
| Cable Assembly | 4 Components Cabled Twists: 6.0 Twists/foot (min.) Orientation: Arranged from inside layer to outside layer Core Wrap: Nonwoven Polyester Tape, 25% overlap, min. |
| Shield | Alum/Mylar Tape, 25% overlap, min. Foil Direction: Foil Facing In Drain Wire: 20 (7/28) AWG Tinned Copper |
| Jacket | 0.045 in. Wall, Nom. TPE Color(s): Black Ripcord: 1 End 810 Denier Nylon Label: ALPHA WIRE-* P/N 45464 4C 20 AWG XTRAGUARD(R) 4 (UL) TYPE PLTC 105C SUN RES OR AWM 20237/21918 125C 300 V OR CRU AWM I/II A/B 125C 300 V FT1 P-07- KA140023-MSHA CE ROHS (SEQ FOOTAGE) * = Factory Code |

Physical and Mechanical Properties

| | |
|---------------|-----------------------------|
| Temp. Range | -50 to 125°C (-58 to 257°F) |
| Bend Radius | 10x cable diameter |
| Pull Tension | 20 kg (44 lbs) max. |
| Sunlight Res. | Yes |

Electrical Properties

| | |
|----------------|--------------------------------|
| Voltage Rating | 300 V _{RMS} |
| Conductor DCR | 10.2 Ω/1000ft. @ 20°C, Nominal |
| OA Shield DCR | 8.2 Ω/1000ft. @ 20°C, Nominal |

Certifications

| | |
|-------------------|---|
| UL | AWM/STYLE 20237 125°C / 300 V _{RMS} PLTC 105°C AWM/STYLE 21918 125°C / 300 V _{RMS} SUN RES |
| CSA International | C(RU) AWM I/II A/B FT1 125°C / 300 V _{RMS} SUN RES (Black only) |
| Other | PENNSYLVANIA BUREAU OF MINE SAFETY APPROVED |
| CE | EU Low Voltage Directive 2014/35/EC |

Environmental

| | |
|--------|---|
| Europe | CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3) REACH Regulation (EC 1907/2006) |
| USA | California Proposition 65 |

Learn More

| | |
|--|---|
| PCU-X01 Sensor Hub | syscor.com/downloads/syscor_spec-sheet_pcux01-wireless-hart-sensorhub_en_80175.pdf |
| PCU-X11 Inclinator | syscor.com/downloads/syscor_spec-sheet_pcux11-wireless-hart-inclinator_en_80177.pdf |
| HCD Hydrocarbon Detector Probe | syscor.com/downloads/syscor_spec-sheet_hcd-probe_en_80169.pdf |
| HCDW Hydrocarbon Detector Probe with Water Level | syscor.com/downloads/syscor_spec-sheet_hcdw-probe_en_80171.pdf |