

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.

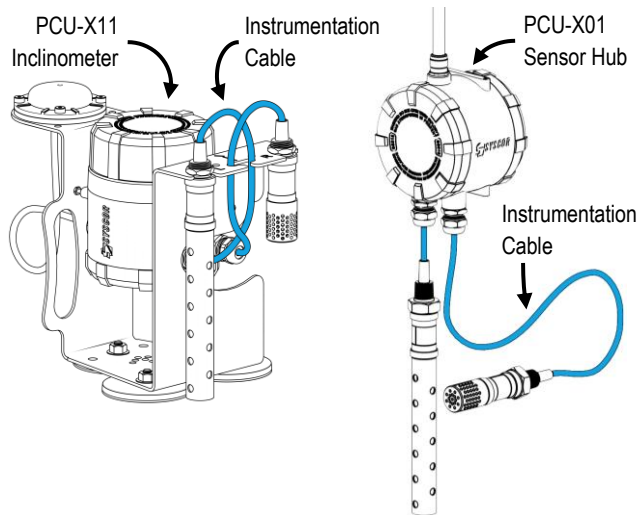


Figure 1. Instrumentation cable attaching HCD/HCDW Probes to a PCU-X01 Sensor Hub and a PCU-X11 Inclinometer.

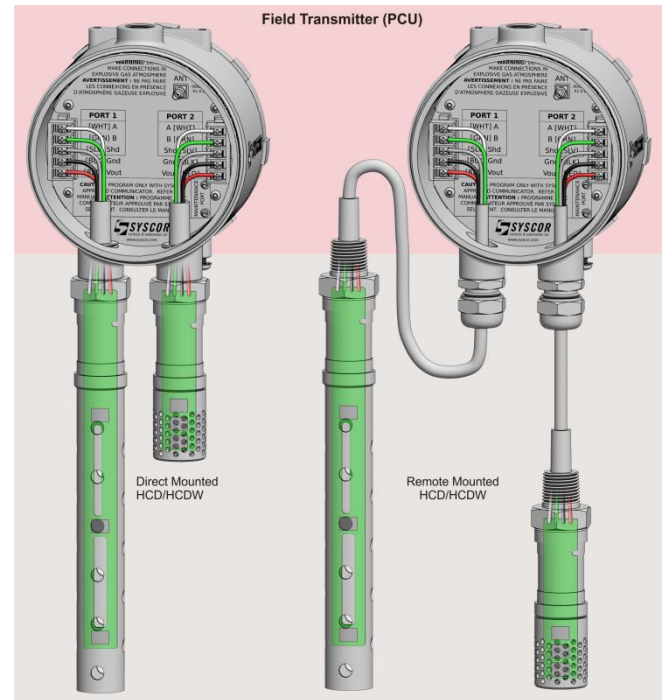
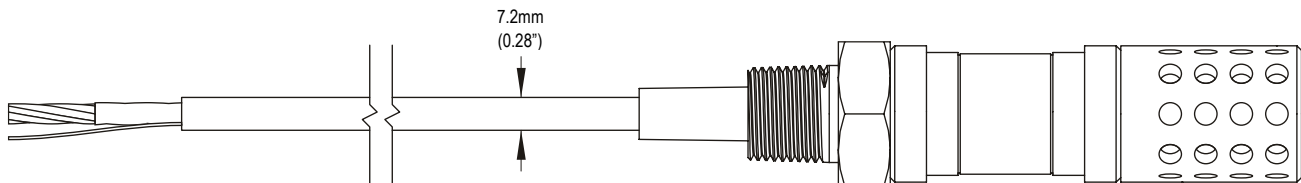


Figure 2. Wiring Diagram



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