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Technical Bulletin

LS Capacitive Point Level
Quick Start Installation Guide

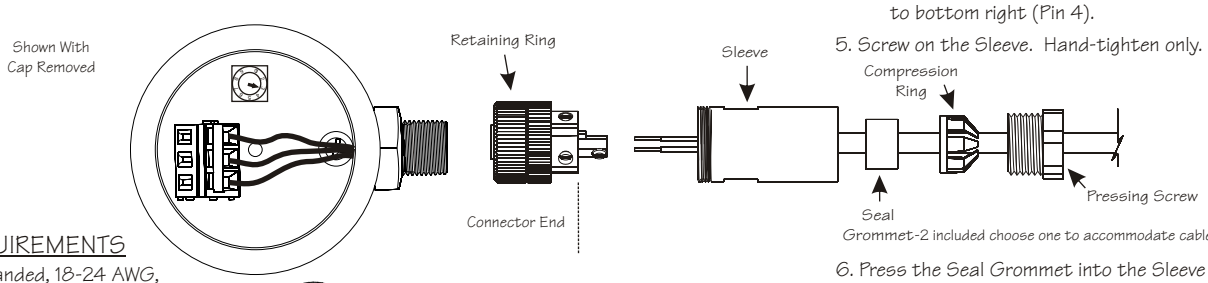
Section 1 - Field Wireable Connector Assembly

1. Insert cable through Pressing Screw, Compression Ring, Seal Grommet, and Sleeve as shown below.

2. Strip back 1-1/4" of outer sheathing, cut off any excess wires, shield and ground. Strip off 1/4" insulation from remaining four wires. It is not necessary or recommended to tin the wires.

3. Orient Connector end so that center pin connecting screw is horizontal facing right (see detail).

4. Refer to pin detail.
4A - Wiring for full (immersed) indication: Wire PWR+ to top right terminal (Pin 1) and PWR- wire to bottom left (Pin 3). Wire output to bottom right (Pin 4).
4B - Wiring for empty (not immersed) indication: Wire PWR- to top right terminal (Pin1) and PWR+ to bottom left (Pin 3). Wire output to bottom right (Pin 4).

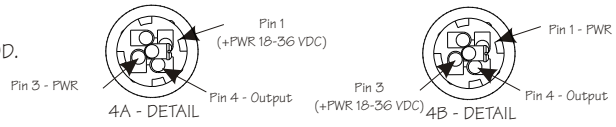


5. Screw on the Sleeve. Hand-tighten only.

Grommet-2 included choose one to accommodate cable OD

CABLE REQUIREMENTS

3 conductor, stranded, 18-24 AWG, shielded with ground.
4-8mm (0.16-0.31") Cable Sheath OD.

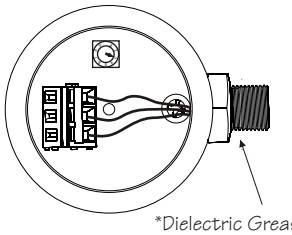


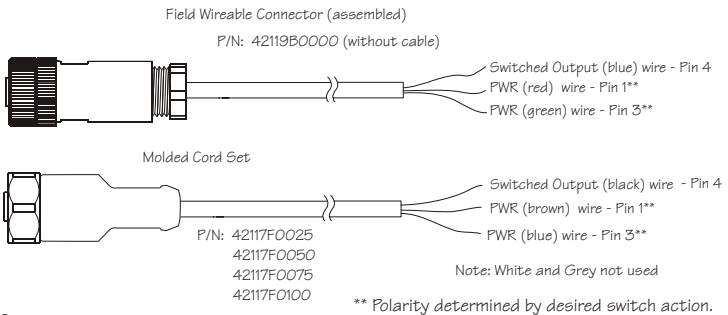
6. Press the Seal Grommet into the Sleeve and hand-tighten the Pressing Screw against the compression ring.

7. Use a wrench to tighten the Pressing Screw another 3/4 turn. Do not over-tighten!

To install connector, simply line up key, press into receptacle, and hand-tighten the retaining ring.

*Receptacle pins should be coated with USDA approved dielectric grease to Minimize possibility of corrosion.





** Polarity determined by desired switch action. See switch action below.

Section 2 - Installation

Select Switch Action:

- Switch action is determined by power supply polarity. If field wireable connector is used see instruction 4 in section 1 for wiring instructions. If assembly cable is purchased connect Red conductor to PWR+ (18-36V) and Green conductor to PWR- for full (immersed) indication. Reverse these for empty (not immersed) indication.

Rotory Switch Output Test & Threshold Adjustment:

1. For installation testing sensor may be set for continuous output:
Position 0 - output off
Position 1 - output on
2. Positions 2-9 act as a sensitivity adjustment, position selects a minimum dielectric recognized. Reducing dielectric threshold can help eliminate false readings.

Position 2 - ≥ Dielectric 20	Position 6 - ≥ Dielectric 40
Position 3 - ≥ Dielectric 25	Position 7 - ≥ Dielectric 50
Position 4 - ≥ Dielectric 30	Position 8 - ≥ Dielectric 60
Position 5 - ≥ Dielectric 35	Position 9 - ≥ Dielectric 70

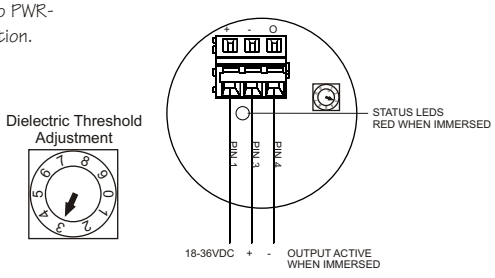
Output Circuit:

Standard unit is PNP output see detail for connection
Optional unit is NPN output see detail for connection

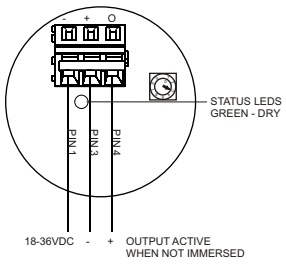
Misc:

- Media must have water content >25% or a dielectric constant >20
- Coatings are generally ignored. Coatings of highly conductive media ≥ 30ms/cm may cause errors.
- Foam is generally ignored

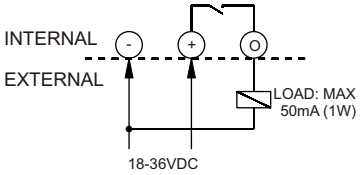
HIGH ACTIVE
FULL INDICATION



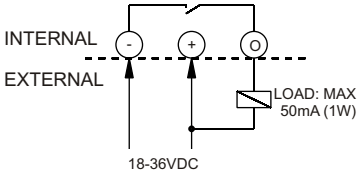
LOW ACTIVE
EMPTY INDICATION



PNP - Sourcing



NPN - Sinking



Section 3 - Specification

Operation/Environmental Specifications

Ambient Temperature Limits:	14 - 140°F (-10 - 60°C)
Pressure Rating:	150 PSI (10 BAR) max
Process Temperature Limits:	32 - 212°F (0 - 100°C)
CIP Cleaning:	302°F (150°C) max 60 minutes
Function:	Full/empty signal determined by wiring
Response Time:	0.1s
Minimum DielectricThreshold:	Selectable from 20-70

Mechanical Specifications

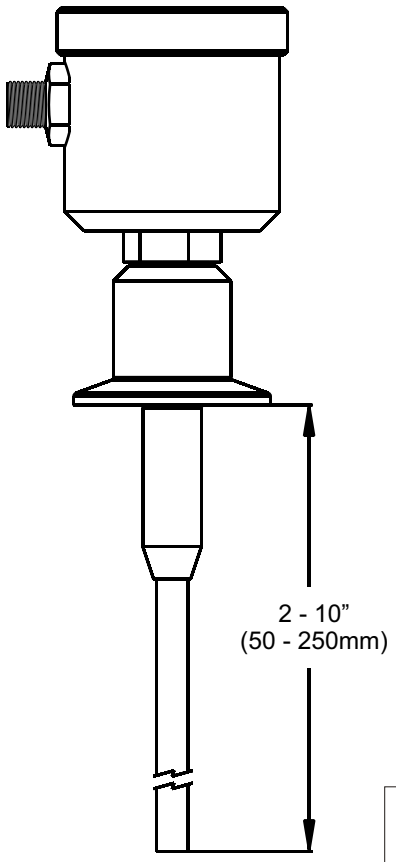
Wetted Materials:	316L Stainless Steel, PEEK
Wetted Finish:	Better than Ra=32
Housing Material:	300 series Stainless Steel housing, lid and threaded connection (non contact surfaces)
Enclosure Protection:	NEMA 4X, IP69K
Agency Approval:	CE compliant; 3-A compliant, Third party verified in accordance with standard 74-03

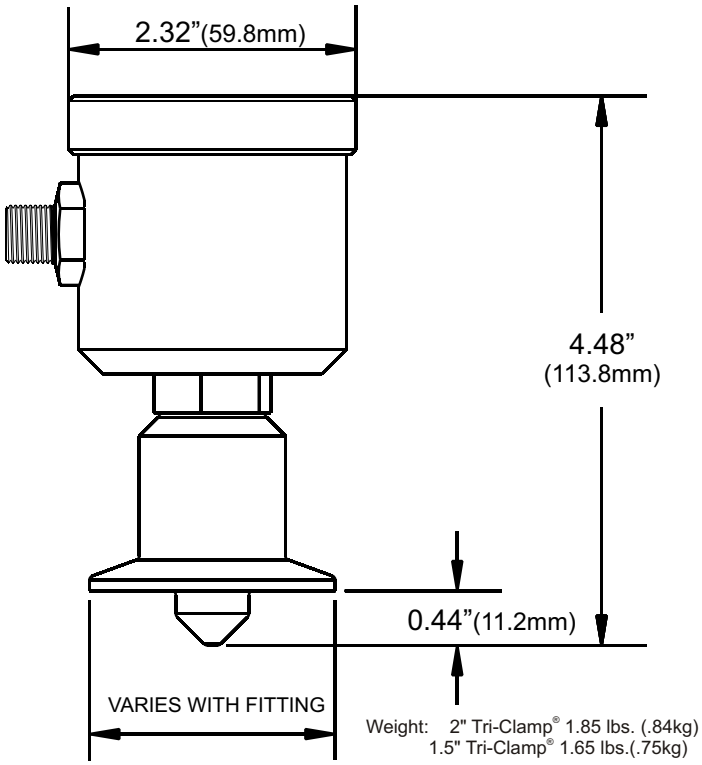
Electrical Specifications

Voltage Required:	18 to 36 Vdc (≤ 20mA)
Power Consumption:	0.6 W Typ. (i.e. 25mA at 24 Vdc)
Signal Output:	PNP - Sourcing (active 50mA) Optional NPN -Sinking (max 50mA)
Signal Transmission Power:	≤ 1mw
Connection:	One 3 pin M12 Micro-mini electrical connector (QDR)

Visual Indication

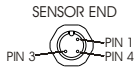
Status LED:	Red - Probe Immersed
	Green - Probe Dry
Warranty:	2 years





ATTENTION: CONNECTOR WIRING

	Full Ind	Empty Ind
Pin1 -	18-36 VDC	VDC Com
Pin3 -	VDC Com	18-36 VDC
Pin4 -	Switch Output MAX 50 mA	



Refer to technical bulletin for Anderson cable color coding