

PRODUCT BROCHURE

LPDT2™

Ultra-Compact, Loop-Powered
Aluminum Oxide Sensor Transmitter
-100°C to + 20°C Dew Point



No display version



Standard version with display

Reliable and Fast

Cost-Effective

Low Maintenance

- Hydrogen Service
- Monitoring and control of air dryers
- Glove boxes
- Welding gases
- Clean room environments



Our LPDT2™ is an **ultra-compact, loop-powered dew point transmitter** available with or without a display. The LPDT2 offers users even more control and options for customized dew point monitoring. Features include:

- **LPDT2 with display** features a custom LCD display with pushbutton control enabling users to view, select, and set options at the transmitter.
 - **LPDT2 No Display** Provides reliability to users without the additional expense of on-board transmitter control.
- Loop Powered, with 4-20mA analog output
 - Digital outputs via MODBUS 485
 - User Selectable Settings for units of measure
 - 3 Field Calibration options: single point, span check and Offset
 - NEMA 4 IP66 Housing
 - Display unit can be rotated to read upright
 - Optional CI 1 Div 2 / Zone 2 area ratings
 - Low cost of ownership and maintenance

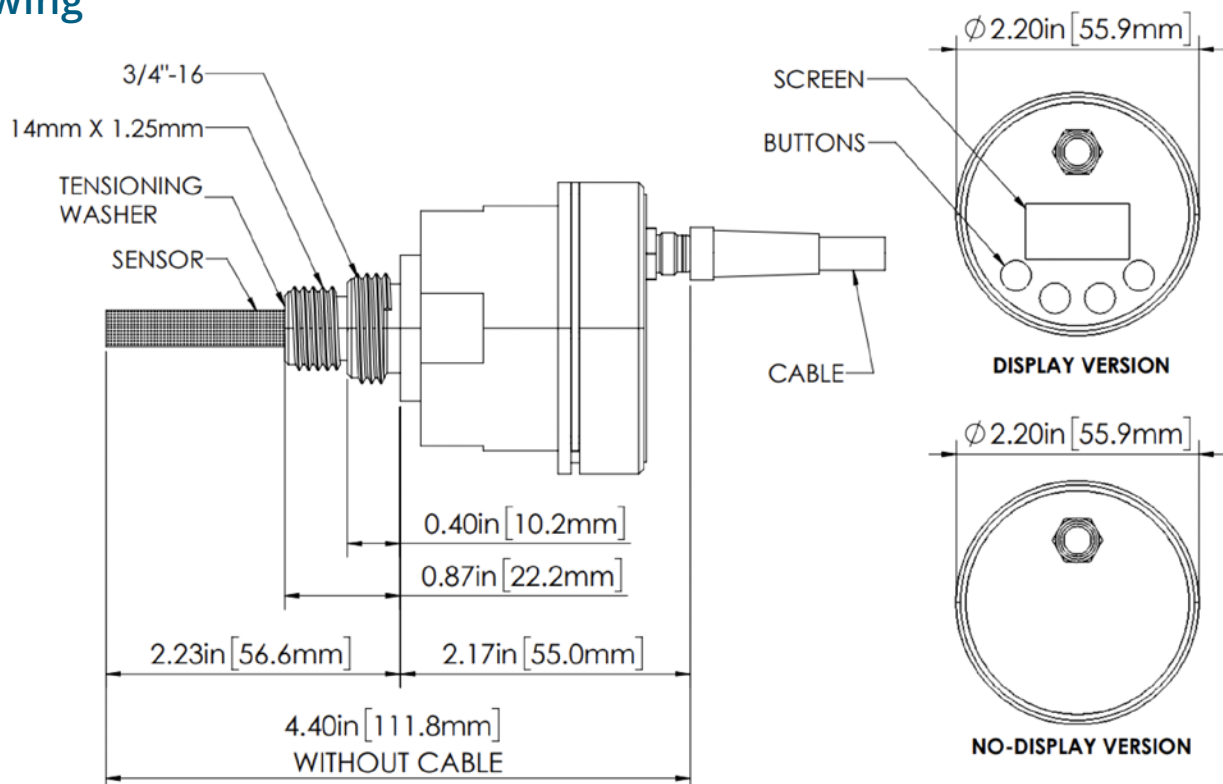
Certifications

| | |
|----------------|--|
| USA and Canada | Class I, Division 2, Groups A, B, C, D, T5, Tamb: -10°C ≤ Ta ≤ +70°C |
| | Class I, Zone 2, AEx ic IIC T5 Gc, Tamb: -10°C ≤ Ta ≤ +70°C |
| ATEX | Zone 2 (II 3 G Ex ic IIC T5 Gc, Tamb: -10°C ≤ Ta ≤ +70°C) |
| UKEX | Zone 2 (II 3 G Ex ic IIC T5 Gc, Tamb: -10°C ≤ Ta ≤ +70°C) |
| IECEX | Zone 2 (Ex ic IIC T5 Gc, Tamb: -10°C ≤ Ta ≤ +70°C) |

Applications

- Glove boxes
- Clean room environments
- Natural gas transmission
- Hydrocarbon processing
- Air dryers and compressors
- Hydrogen Service
- Specialty air gases
- Cryogenic
- Air generators

Drawing



Selectable User Settings may be controlled via an Optional Controller/Display mounted in the transmitter. See chart below for available settings and control levels for both transmitter options.

| Settings | LPDT | LPDT2 No Display (Modbus Controlled) | LPDT2 Display Controlled |
|---|------|---|-----------------------------|
| Select Units of Measure for output reading (°C, °F, ppm, lbs, g/m3) | Yes | No | Yes |
| Display up to two Alternating Units of Measure | Yes | No | Yes |
| Lock and Unlock settings | Yes | No | Yes |
| Single Point Calibration, with a known gas value | No | No | Yes NEW |
| Span Check Calibration | Yes | No | Yes |
| Offset Adjustment | No | YES NEW | YES NEW |
| Show Sensor Data (transmitter and sensor Serial number) | No | Yes | Yes |
| Test the 4-20mA out put | Yes | Yes | Yes |
| Customize the Scale on 4-20mA output | Yes | Yes | Yes |
| Rotating Front Panel | Yes | Yes | Yes |

TECHNICAL SPECIFICATIONS

| Dew Point Sensor Element | |
|---|--|
| Type: | Hyper-Thin-Film high capacitance Al ₂ O ₃ dew point range, XTR-100 -100°C to +20°C (-148°F to +68°F), XTR-65 -65°C to +20°C (-85°F to +68°F) |
| Sensor Range: Model: XTR-65 Model: XTR-100 | -65°C to +20°C (-85°F to +68°F) -100°C to +20°C (-148°F to +68°F) |
| Accuracy: | ±3°C (± 5.5°F) for -100°C to +20°C dew point |
| Repeatability: | ±0.5°C (±0.9°F) |
| Operating Temperature range: | -10°C to +70°C (+14°F to +158°F) Class T5 |
| Sample Flow Range (linear vel. @ 1 atm.): | 1-4LPM |
| Storage Temperature: | -40°C to +80°C (-40°F to +176°F) |
| Calibration Method: | Factory; NIST/NPL traceable, multipoint calibration; Field; single point, span check and Offset (display unit) |
| Electronics | |
| Input resolution: | 0.1°C (dp) |
| Indicators: | 3.5 digit LCD with custom legends on display unit |
| Engineering units: | °C, °F, ppmv, LBS H ₂ O/mm scf, gm H ₂ O/m ³ with display only |
| Controls: | 4 push buttons, all settings stored in EPROM |
| Output: | Analog 4-20mA; modbus 485 interface |
| Isolation: | Sensor and case are isolated from the current loop and shunted with 33V transorbs |
| Mechanical | |
| Enclosure: | Stainless steel NEMA 4 IP66 enclosure |
| Pressure operating range: | 340 bar (5,000 PSI) |
| Electrical connections: | Device: Molex 1200905081, 5 pin male connector Mate: Molex 1200860192, 5 pin female connector |
| Cable: | 5 conductor cables, 12ft cable provided, can configure for 2 wire system |
| Power Requirements: | 10 to 33 VDC, the instrument draws 4-20mA depending on measurement dew point |
| Warranty: | One year |

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