PRODUCT BROCHURE

LPDT2

**Ultra-Compact, Loop-Powered
Aluminum Oxide Sensor Transmitter**

NEW

No display version

Reliable and Fast

Cost-Effective

Low Maintenance

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

COSA Xentaur's 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:
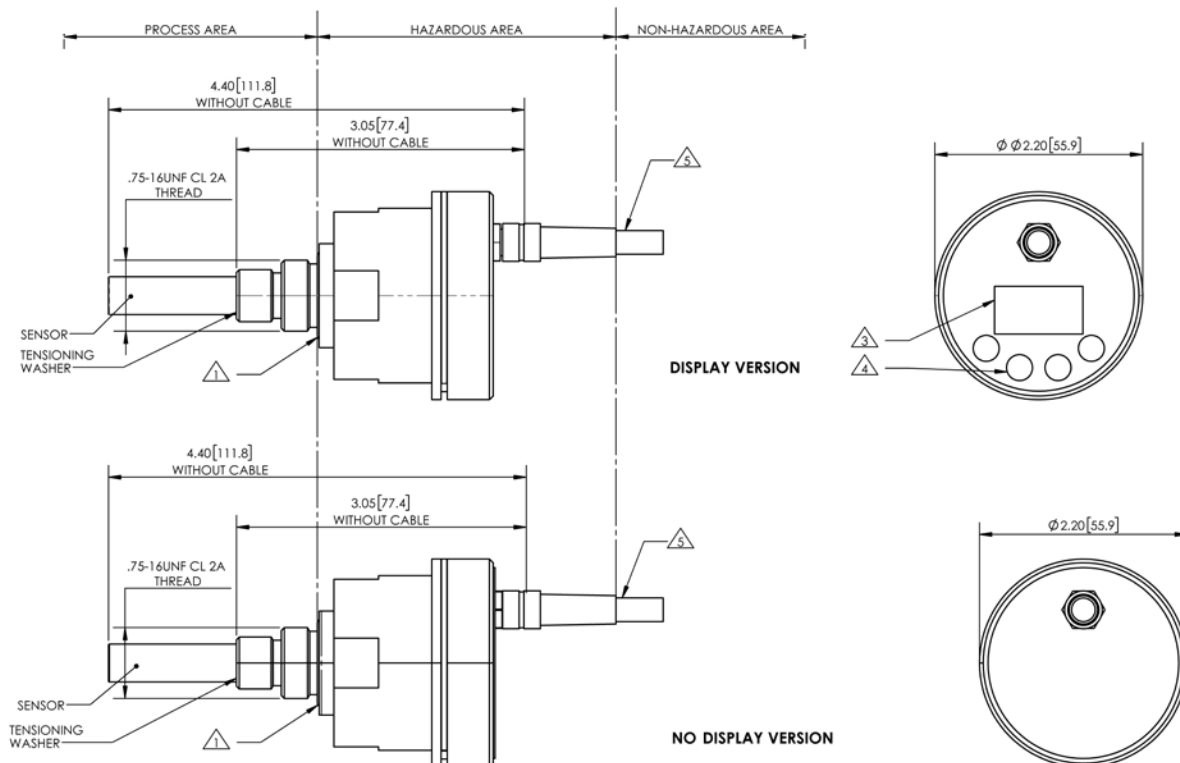
– Loop Powered, with 4-20mA analog output
– Data Logging outputs via MODBUS 485
– User Selectable Settings for units of measure
– 3 Field Adjustment options

– NEMA 4 IP66 Housing
– Display unit can be rotated to read upright
– Optional Cl 1 Div 2 area rating **(coming soon)**
– Low cost of ownership and maintenance

• **LPDT2 with display** features a miniature custom LCD display with new four pushbutton control enabling users to view, select, and set options at the transmitter.

• **LPDT2 No Display** is a blind transmitter providing the measurement reliability users expect from COSA Xentaur HTF aluminum oxide sensors, without the additional expense of on-board transmitter control.

Configurations
• LPDT2-100 – general purpose and CL1 Div 2
• LPDT2-ND100 – general purpose and CL1 Div 2
• LPDT2-65 – general purpose and CL1 Div 2
• LPDT2-ND65 – general purpose and CL1 Div 2

Applications
• Glove boxes
• Clean room environments
• Natural gas transmission
• Hydrocarbon processing
• Air dryers and compressors
• Specialty air gases
• Cryogenic
• Air generators

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, ppmV, 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)	Yes	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_2O_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)
Capacitance:	15nF to 200nF
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)
Sample Flow Range (linear vel. @ 1 atm.):	Static to 100 m/s
Storage Temperature:	-40°C to +80°C (-40°F to +176°F)
Calibration Method:	NIST/NPL traceable, multipoint calibration; single point and span check (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_2O/mm scf, gm H_2O/M^3 with display; cton no display
Controls:	4 push buttons, all settings stored in EPROM
Output:	Analog 4-20mA; 2 wire modbus 485 interface
Isolation:	Sensor and case are isolated from the current loop and shunted with 33V transorbs
Mechanical	
Enclosure:	Stainless steel IP64 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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