



Main

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| Range of product | OsiSense XM |
| Product or component type | Electronic pressure sensors |
| Pressure sensor type | Pressure transmitter |
| Pressure switch type of operation | Pressure transmitter with 1 switching output |
| Device short name | XMLR |
| Pressure sensor size | 232.06 psi (16 bar) 232 psi (1599.58 kPa) |
| Maximum permissible accidental pressure | 900 psi (6205.28 kPa) 6.2 MPa 899.23 psi (62 bar) |
| Destruction pressure | 899.23 psi (62 bar) 900 psi (6205.28 kPa) 6.2 MPa |
| Controlled fluid | Fresh water 32...176 °F (0...80 °C)) Air -4...176 °F (-20...80 °C)) Hydraulic oil -4...176 °F (-20...80 °C)) Refrigeration fluid -4...176 °F (-20...80 °C)) |
| Fluid connection type | 1/4" - 18 NPT (female) |
| [Us] rated supply voltage | 24 V DC SELV 17...33 V) |

Complementary

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|--|---|
| Current consumption | <= 50 mA |
| Electrical connection | Male connector M12, 4 pins |
| Analogue output function | 4...20 mA |
| Type of output signal | Analogue + discrete |
| Analogue output function | 4...20 mA |
| Discrete output type | Solid state NPN, NO/NC programmable |
| Maximum switching current | 250 mA |
| Contacts type and composition | NO/NC programmable |
| Scale type | Fixed differential |
| Maximum voltage drop | 2 V |
| Adjustable range of switching point on rising pressure | 18.6...232 psi (128.24...1599.58 kPa) 18.56...232.06 psi (1.28...16 bar) |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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| | 0.128...1.6 MPa |
| Adjustable range of switching point on falling pressure | 11.60...224.81 psi (0.8...15.5 bar) 0.08...1.55 MPa 11.6...225 psi (79.98...1551.32 kPa) |
| Minimum differential travel | 6.96 psi (48 kPa) 6.96 psi (0.48 bar) 7 psi (48.26 kPa) |
| Materials in contact with fluid | 316L stainless steel Ceramic Fluorocarbon FKM (Viton) |
| Front material | Polyester |
| Housing material | Polyacrylamide 316L stainless steel |
| Operating position | Any position, but disposals can falsified the measurement in case of upside down mounting |
| Protection type | Overload protection Reverse polarity Overvoltage protection Short-circuit protection |
| Response time on output | <= 10 ms analog output <= 5 ms discrete output |
| Switching output time delay | 0...50 s in steps of 1 second |
| Display type | 4 digits 7 segments |
| Local signalling | Light ON when switch is actuated 1 LED yellow) |
| Display response time type | Fast 50 ms Normal 200 ms Slow 600 ms |
| Maximum delay first up | 300 ms |
| Overall accuracy | <= 1 % of the measuring range |
| Linearity error on analogue output | <= 0.5 % of the measuring range |
| Hysteresis on analogue output | <= 0.2 % of the measuring range |
| Measurement accuracy on switching output | <= 0.6 % of the measuring range |
| Repeat accuracy | <= 0.2 % of the measuring range |
| Drift of the sensitivity | +/- 0.03 % of measuring range/°C |
| Drift of the zero point | +/- 0.1 % of measuring range/°C |
| Display accuracy | <= 1 % of the measuring range |
| Mechanical durability | 10000000 cycles |
| Depth | 1.65 in (42 mm) |
| Height | 3.94 in (100 mm) |
| Width | 1.61 in (41 mm) |
| Net weight | 0.47 lb(US) (0.212 kg) |
| [Uimp] rated impulse withstand voltage | 0.5 kV DC |
| Electromagnetic compatibility | Susceptibility to electromagnetic fields 10 V/m 80...2000 MHz EN/IEC 61000-4-3 Immunity to conducted RF disturbances 10 V 0.15...80 MHz EN/IEC 61000-4-6 Surge immunity test 1 kV EN/IEC 61000-4-5 Electrical fast transient/burst immunity test 2 kV EN/IEC 61000-4-4 Electrostatic discharge immunity test 8 kV air, 4 kV contact EN/IEC 61000-4-2 |

Environment

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|---------------------------------------|--|
| Marking | CE |
| Product certifications | CULus EAC |
| Standards | EN/IEC 61326-2-3 UL 61010-1 |
| Ambient air temperature for operation | -4...176 °F (-20...80 °C) |
| Ambient air temperature for storage | -40...176 °F (-40...80 °C) |
| IP degree of protection | IP65 conforming to EN/IEC 60529 IP67 EN/IEC 60529 |
| Vibration resistance | 20 gn 10...2000 Hz)EN/IEC 60068-2-6 |

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|------------------|-------------------------|
| Shock resistance | 50 gn EN/IEC 60068-2-27 |
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Packing Units

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|------------------------------|-------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 6.38 oz (181 g) |
| Package 1 Height | 2.56 in (6.5 cm) |
| Package 1 width | 2.95 in (7.5 cm) |
| Package 1 Length | 5.00 in (12.7 cm) |

Offer Sustainability

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| RECh Regulation | RECh Declaration |
| RECh free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |

Dimensions



(1) Fluid entry: 1/4"-18NPT female

Connections and Schema

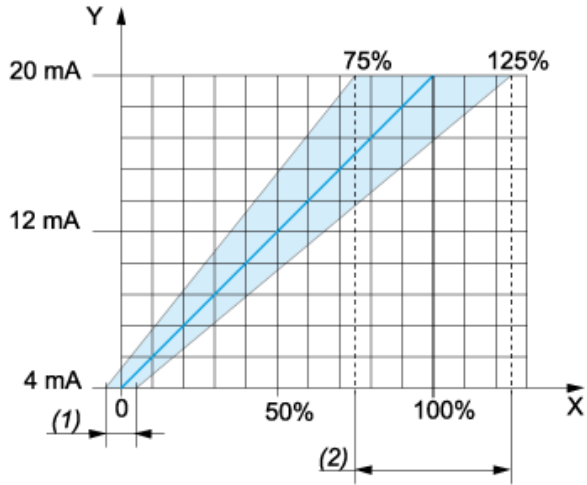
Connector Wiring



(1) I Out or V Out

Analogue Output Description

Analogue Output Signal



- X : Pressure
Y : Analogue output signal
(1) An offset of +/-5% of nominal pressure can be compensated (with Cof Configuration menu. Cof: Offset Compensation)
(2) The analogue curve can be adjusted from -25% to +25% of nominal pressure (with AEP Configuration menu. AEP: analogue end point).

Switching Output Description. Hysteresis Mode

The hysteresis switching mode is typically used for the “pumping and/or emptying applications”.



- X : Time
- Y : Pressure
- (1) Output
- NP : Nominal Pressure
- SP : Set point (adjustable from 8 % to 100 % NP)
- rP : Reset point (adjustable from 5 % to 97 % NP)

Switching Output Description. Window Mode

The window switching mode is typically used for the "pressure regulation applications"



- X : Time
- Y : Pressure
- (1) Output
- NP : Nominal pressure
- FH : High switching point (adjustable from 8 % to 100 % NP)
- FL : Low switching point (adjustable from 5 % to 97 % NP)

Switching Output Description. Time Delay

The Time Delay is typically used to filter out the fast pressure transients.
The output only switches after a time “dS” and “dr” adjustable from 0 to 50 seconds.



- X : Time
- Y : Pressure
- (1) Output
- SP : Set point
- rP : Reset point
- dS : Time delay on the set point
- dr : Time delay on the reset point