



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 switch with 2 switching outputs |
| Device short name | XMLR |
| Pressure sensor size | 14.50 psi (100 kPa) 14.50 psi (1 bar) 14.5 psi (99.97 kPa) |
| Maximum permissible accidental pressure | 108.78 psi (7.5 bar) 108.78 psi (750 kPa) 109 psi (751.53 kPa) |
| Destruction pressure | 108.78 psi (7.5 bar) 108.78 psi (750 kPa) 109 psi (751.53 kPa) |
| 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 | G 1/4 (female) DIN 3852-Y |
| [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 |
| Type of output signal | Discrete |
| Discrete output type | Solid state NPN, 2 NO/NC programmable |
| Maximum switching current | 250 mA |
| Contacts type and composition | 2 NO/NC programmable |
| Scale type | Fixed differential |
| Maximum voltage drop | 2 V |
| Adjustable range of switching point on rising pressure | 1.16...14.5 psi (8.00...99.97 kPa) 1.16...14.50 psi (0.08...1 bar) 1.16...14.50 psi (8...100 kPa) |

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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|---|--|
| Adjustable range of switching point on falling pressure | 0.73...14.07 psi (0.05...0.97 bar) 0.73...14.1 psi (5.03...97.22 kPa) 0.73...14.07 psi (5...97 kPa) |
| Minimum differential travel | 0.44 psi (3 kPa) 0.44 psi (0.03 bar) 0.43 psi (2.96 kPa) |
| Materials in contact with fluid | Ceramic Fluorocarbon FKM (Viton) 316L stainless steel |
| Front material | Polyester |
| Housing material | 316L stainless steel Polyacrylamide |
| Operating position | Any position, but disposals can falsified the measurement in case of upside down mounting |
| Protection type | Short-circuit protection Reverse polarity Overvoltage protection Overload protection |
| Response time on 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 2 LEDs 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 |
| 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 | 3.66 in (93 mm) |
| Width | 1.61 in (41 mm) |
| Net weight | 0.42 lb(US) (0.19 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 | UL 61010-1 EN/IEC 61326-2-3 |
| 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 |
| Shock resistance | 50 gn EN/IEC 60068-2-27 |

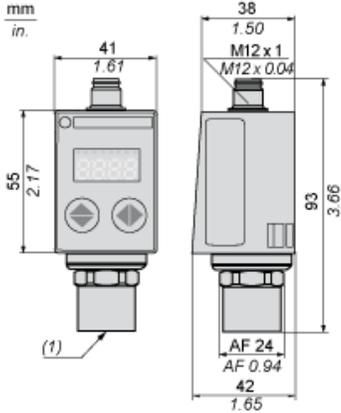
Packing Units

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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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| REACH Regulation | REACH Declaration |
| REACH 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 |

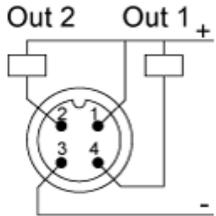
Dimensions



(1) Fluid entry: G 1/4 A female

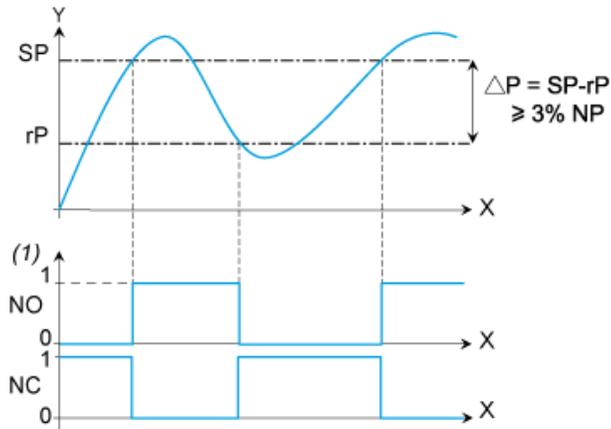
Connections and Schema

Connector Wiring



Switching Output Description. Hysteresis Mode

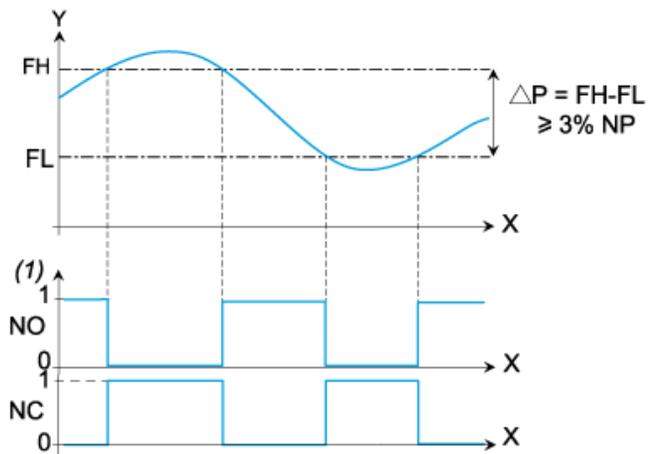
The hysteresis switching mode is typically used for the “pumping and/or emptying applications”.



- 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

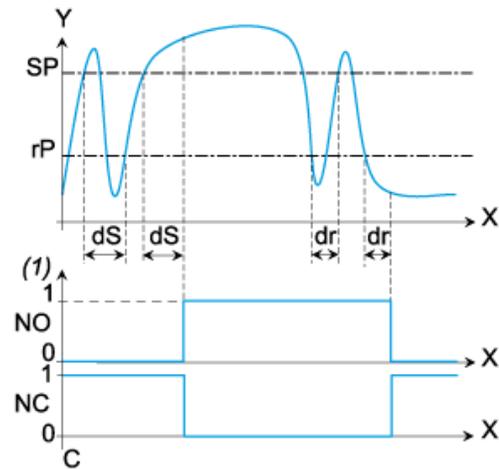
The window switching mode is typically used for the “pressure regulation applications”



- 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