



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 | 100 bar 1450 psi |
| Maximum permissible accidental pressure | 30 MPa 300 bar 4350 psi |
| Destruction pressure | 8700 psi 600 bar 60 MPa |
| Controlled fluid | Fresh water (0...80 °C) Air (-20...80 °C) Hydraulic oil (-20...80 °C) Refrigeration fluid (-20...80 °C) |
| Fluid connection type | 1/4" - 18 NPT (female) |
| [Us] rated supply voltage | 24 V DC SELV (voltage limits: 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 | 116...1450 psi 8...100 bar 0.8...10 MPa |
| Adjustable range of switching point on falling pressure | 0.5...9.7 MPa 5...97 bar |

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| | 72.5...1407 psi |
| Minimum differential travel | 43.5 psi 0.3 MPa 3 bar |
| Materials in contact with fluid | 316L stainless steel |
| 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 | Short-circuit protection Overvoltage protection Reverse polarity Overload protection |
| Response time on output | <= 5 ms for discrete output |
| Switching output time delay | 0...50 s in steps of 1 second |
| Display type | 4 digits 7 segments |
| Local signalling | 2 LEDs (yellow)light ON when switch is actuated: |
| 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 | 42 mm |
| Height | 88 mm |
| Width | 41 mm |
| Product weight | 0.186 kg |
| [Uimp] rated impulse withstand voltage | 0.5 kV DC |
| Electromagnetic compatibility | Susceptibility to electromagnetic fields: 10 V/m 80...2000 MHz conforming to EN/IEC 61000-4-3 Immunity to conducted RF disturbances: 10 V 0.15...80 MHz conforming to EN/IEC 61000-4-6 Surge immunity test: 1 kV conforming to EN/IEC 61000-4-5 Electrical fast transient/burst immunity test: 2 kV conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test: 8 kV air, 4 kV contact conforming to 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 | -20...80 °C |
| Ambient air temperature for storage | -40...80 °C |
| IP degree of protection | IP65 conforming to EN/IEC 60529 IP67 conforming to EN/IEC 60529 |
| Vibration resistance | 20 gn (f= 10...2000 Hz) conforming to EN/IEC 60068-2-6 |
| Shock resistance | 50 gn conforming to EN/IEC 60068-2-27 |

Offer Sustainability

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| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |

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| Mercury free | Yes |
| RoHS exemption information | Yes |

Contractual warranty

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| Warranty | 18 months |
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Dimensions



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

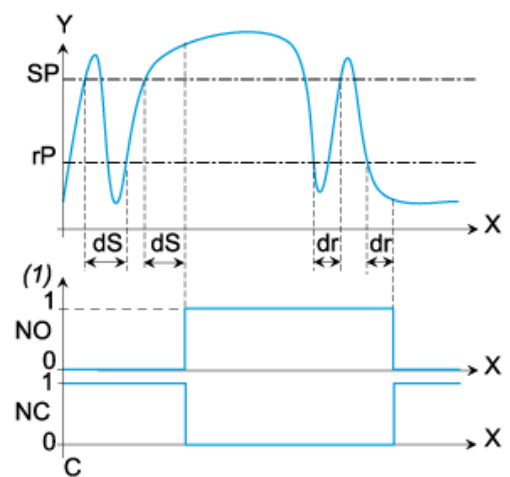
The window switching mode is typically used for the “pressure regulation applications”



- 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