



## Main

|   |  |
|---|--|
| 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                    | 4 MPa<br>40 bar<br>580 psi   |
| Maximum permissible accidental pressure | 150 bar<br>2175 psi<br>15 MPa  |
| Destruction pressure                    | 150 bar<br>2175 psi<br>15 MPa  |
| Controlled fluid                        | Fresh water (0...80 °C)<br>Air (-20...80 °C)<br>Hydraulic oil (-20...80 °C)<br>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

|                           |                                     |
|---------------------------|-------------------------------------|
| Current consumption       | <= 50 mA                            |
| Electrical connection     | 4 pins M12 male connector           |
| Type of output signal     | Analogue + discrete                 |
| Analogue output function  | 4...20 mA                           |
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| Discrete output type      | Solid state PNP, NO/NC programmable |
| Maximum switching current | 250 mA                              |
| Voltage drop              | <= 2 V                              |

|   |   |
|---|---|
| Adjustable range of switching point on rising pressure  | 3.2...40 bar<br>0.32...4 MPa<br>46.4...580 psi  |
| Adjustable range of switching point on falling pressure | 2...38.8 bar<br>0.2...3.88 MPa<br>29...563 psi  |
| Minimum differential travel                             | 1.2 bar<br>120 kPa<br>17.4 psi  |
| Materials in contact with fluid                         | 316L stainless steel<br>Ceramic<br>Fluorocarbon FKM (Viton)   |
| Front material  | Polyester   |
| Housing material  | 316L stainless steel<br>Polyacrylamide  |
| Operating position                                      | Any position, but disposals can falsified the measurement in case of upside down mounting   |
| Protection type   | Overvoltage protection<br>Reverse polarity<br>Short-circuit protection<br>Overload protection   |
| Response time on output                                 | <= 10 ms for analog output<br><= 5 ms for discrete output   |
| Time delay range  | 0...50 s in steps of 1 second   |
| Display type  | 4 digits 7 segments   |
| Local signalling  | 1 LED yellow for light ON when switch is actuated   |
| Display response time type                              | Fast 50 ms<br>Normal 200 ms<br>Slow 600 ms  |
| Delay first up  | <= 300 ms   |
| Accuracy  | <= 1 % of the measuring range   |
| Linearity error   | <= 0.5 % of the measuring range   |
| Hysteresis  | <= 0.2 % of the measuring range   |
| Measurement accuracy                                    | <= 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  | 100 mm  |
| Width   | 41 mm   |
| Product weight  | 0.212 kg  |
| [Uimp] rated impulse withstand voltage                  | 0.5 kV DC   |
| Electromagnetic compatibility                           | Electrostatic discharge immunity test - test level 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2<br>Susceptibility to electromagnetic fields - test level 10 V/m (80...2000 MHz) conforming to EN/IEC 61000-4-3<br>Electrical fast transient/burst immunity test - test level 2 kV conforming to EN/IEC 61000-4-4<br>Surge immunity test - test level 1 kV conforming to EN/IEC 61000-4-5<br>Immunity to conducted RF disturbances - test level 10 V (0.15...80 MHz) conforming to EN/IEC 61000-4-6 |

## Environment

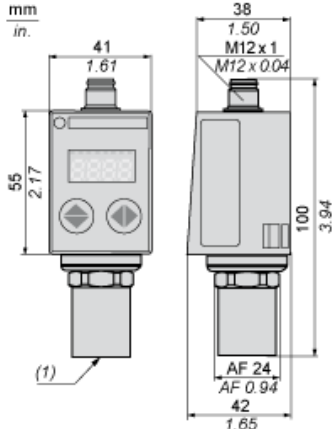
|                                       |                                |
|---------------------------------------|--------------------------------|
| Marking                               | CE                             |
| Product certifications                | EAC<br>cULus                   |
| Standards                             | EN/IEC 61326-2-3<br>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<br>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

|                          |   |
|--------------------------|---|
| Sustainable offer status | Not Green Premium product   |
| RoHS (date code: YYWW)   | Compliant - since 1351 - Schneider Electric declaration of conformity<br><a href="#">Schneider Electric declaration of conformity</a> |
| REACH                    | Reference not containing SVHC above the threshold<br><a href="#">Reference not containing SVHC above the threshold</a>                |

Dimensions



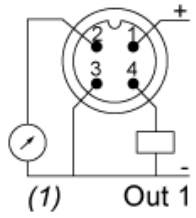
(1) Fluid entry: 1/4"-18NPT female

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Connections and Schema

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Connector Wiring



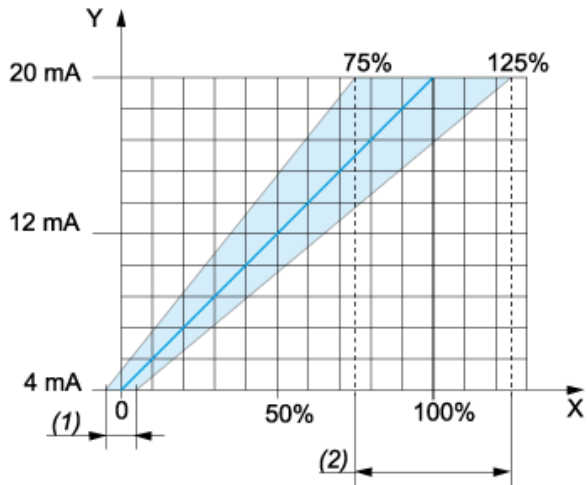
(1) I Out or V Out

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Analogue Output Description

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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)

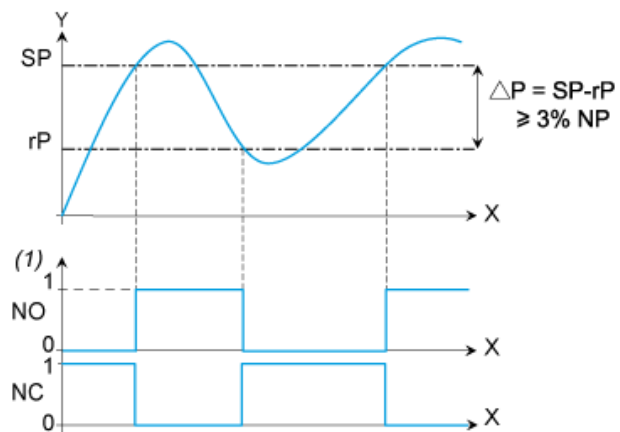
(2) The analogue curve can be adjusted from -25% to +25% of nominal pressure (with AEP Configuration menu. AEP: analogue end point).

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Switching Output Description. Hysteresis Mode

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



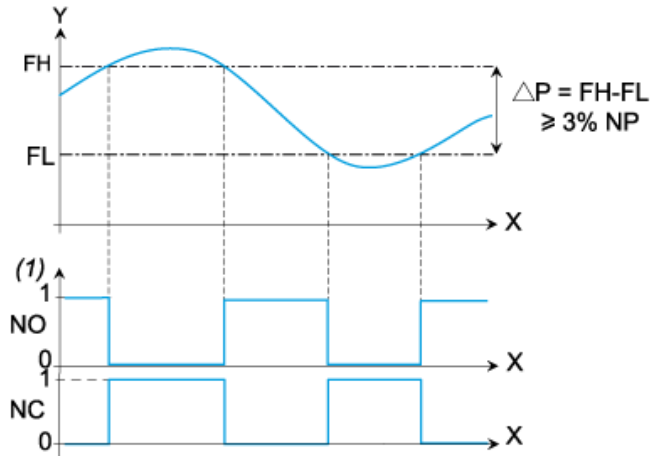
X: Time  
Y: Pressure  
(1) Output  
NP: Nominal Pressure  
SP: Set point (adjustable from 8 % to 100 % NP)  
rP: Reset point (adjustable from 5 % to 97 % NP)

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Switching Output Description. Window Mode

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

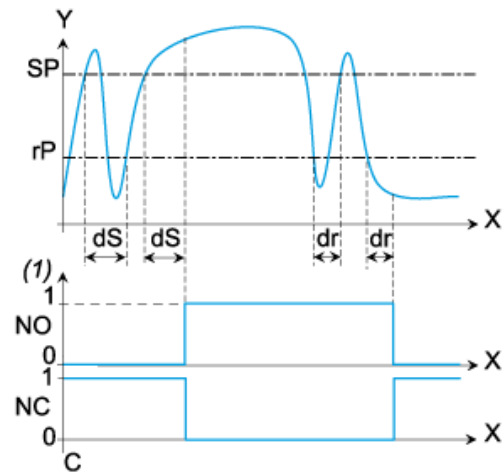


- X : Time
- Y : Pressure
- (1) Output
- NP : Nominal pressure
- FH : High switching point (adjustable from 8 % to 100 % NP)
- FL : Low switching point (adjustable from 5 % to 97 % NP)



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