

Product availability: Stock - Normally stocked in distribution facility



### 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 2 switching outputs                                                                                  |
| Device short name                       | XMLR                                                                                                                           |
| Pressure sensor size                    | 145.04 psi (10 bar)<br>145 psi                                                                                                 |
| Maximum permissible accidental pressure | 580.15 psi (40 bar)<br>580 psi<br>4 MPa                                                                                        |
| Destruction pressure                    | 4 MPa<br>580.15 psi (40 bar)<br>580 psi                                                                                        |
| Controlled fluid                        | Fresh water (32...176 °F (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                                   | 5 pins M12 male connector                                                                 |
| Analogue output function                                | 4...20 mA                                                                                 |
| Type of output signal                                   | Analogue + discrete                                                                       |
| Analogue output function                                | 4...20 mA                                                                                 |
| Discrete output type                                    | Solid state PNP, 2 NO/NC programmable                                                     |
| Maximum switching current                               | 250 mA                                                                                    |
| Contacts type and composition                           | 2 NO/NC programmable                                                                      |
| Scale type                                              | Fixed differential                                                                        |
| Voltage drop                                            | <= 2 V                                                                                    |
| Adjustable range of switching point on rising pressure  | 11.6...145 psi<br>11.6...145.04 psi (0.8...10 bar)<br>0.08...1 MPa                        |
| Adjustable range of switching point on falling pressure | 7.25...140.69 psi (0.5...9.7 bar)<br>7.25...141 psi<br>0.05...0.97 MPa                    |
| Minimum differential travel                             | 4.35 psi (0.3 bar)<br>30 kPa<br>4.35 psi                                                  |
| Materials in contact with fluid                         | Fluorocarbon FKM (Viton)<br>316L stainless steel<br>Ceramic                               |
| 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 |

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|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protection type                          | Overvoltage protection<br>Short-circuit protection<br>Reverse polarity<br>Overload protection                                                                                                                                                                                                                                                                                                                                                                                                               |
| Response time on output                  | <= 10 ms analog output<br><= 5 ms 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<br>Normal 200 ms<br>Slow 600 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Product weight                           | 0.47 lb(US) (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                | CULus<br>EAC                                                       |
| Standards                             | EN/IEC 61326-2-3<br>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<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                              |

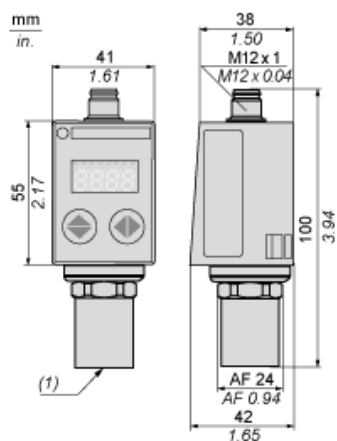
## Ordering and shipping details

|                       |                                         |
|-----------------------|-----------------------------------------|
| Category              | 21551 - XMLF,XMLF,XMLG PRESSURE SENSORS |
| Discount Schedule     | DS2                                     |
| GTIN                  | 00785901324362                          |
| Nbr. of units in pkg. | 1                                       |
| Package weight(Lbs)   | 0.46000000000000002                     |
| Returnability         | N                                       |
| Country of origin     | CH                                      |

## Offer Sustainability

|                            |                                                                                                                                    |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| RoHS (date code: YYWW)     | Compliant - since 1351 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                      | Reference not containing SVHC above the threshold                                                                                  |
| California proposition 65  | WARNING: This product can expose you to chemicals including:                                                                       |
| - - - - - Substance 1      | Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and                                        |
| - - - - - Substance 2      | Diisodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.          |
| - - - - - More information | For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>                                      |

## Dimensions

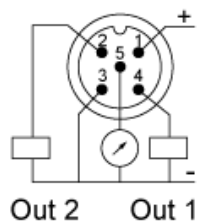


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Connections and Schema

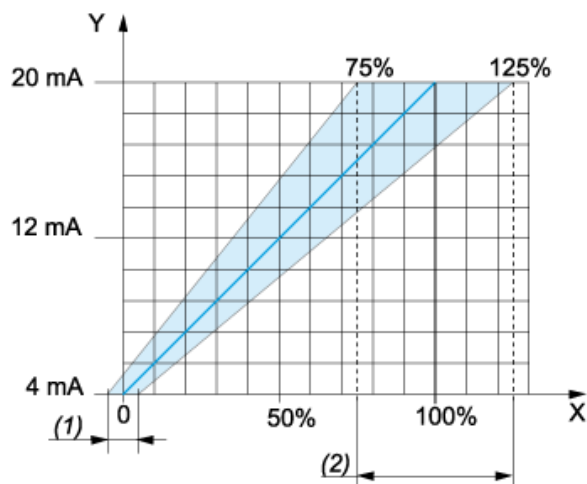
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Connector Wiring



## Analogue Output Description

Analogue Output Signal



X : Pressure

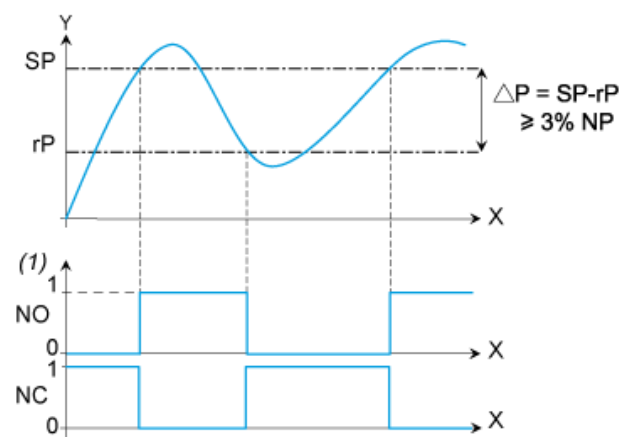
Y : Analogue output signal

(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

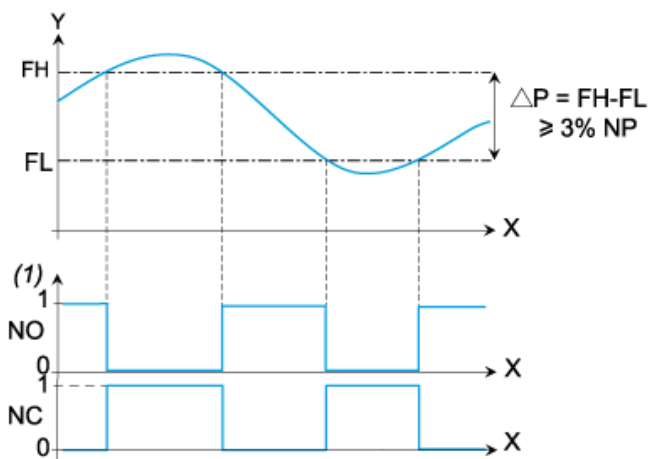
NP : Nominal Pressure

SP : Set point (adjustable from 8 % to 100 % NP)

rP : Reset point (adjustable from 5 % to 97 % NP)

## Switching Output Description. Window Mode

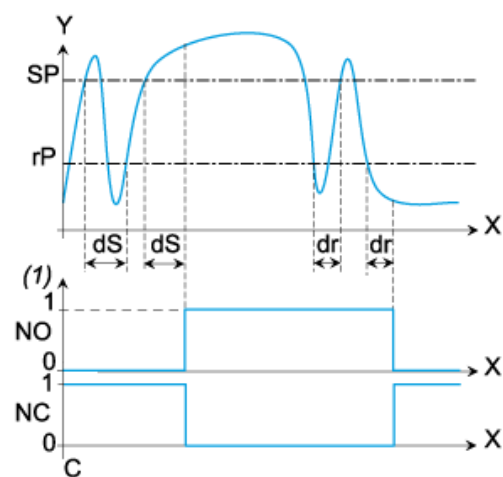
The window switching mode is typically used for the "pressure regulation applications"



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

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