

Product availability: Non-Stock - Not 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 1 switching output                                                                                   |
| Device short name                       | XMLR                                                                                                                           |
| Pressure sensor size                    | 2320 psi<br>2320.6 psi (160 bar)                                                                                               |
| Maximum permissible accidental pressure | 6960 psi<br>48 MPa<br>6961.81 psi (480 bar)                                                                                    |
| Destruction pressure                    | 96 MPa<br>13920 psi<br>13923.62 psi (960 bar)                                                                                  |
| 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                   | G 1/4 (female) conforming to DIN 3852-Y                                                                                        |
| [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                                                                     |
| Analogue output function                                | 0...10 V                                                                                      |
| Type of output signal                                   | Analogue + discrete                                                                           |
| Analogue output function                                | 0...10 V                                                                                      |
| 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                                                                            |
| Voltage drop                                            | <= 2 V                                                                                        |
| Adjustable range of switching point on rising pressure  | 1.28...16 MPa<br>185.65...2320.6 psi (12.8...160 bar)<br>186...2320 psi                       |
| Adjustable range of switching point on falling pressure | 116.03...2248.09 psi (8...155 bar)<br>0.8...15.5 MPa<br>116...2250 psi                        |
| Minimum differential travel                             | 69.6 psi<br>69.62 psi (4.8 bar)<br>0.48 MPa                                                   |
| Materials in contact with fluid                         | 316L stainless steel                                                                          |
| Front material                                          | Polyester                                                                                     |
| Housing material                                        | Polyacrylamide<br>316L stainless steel                                                        |
| Operating position                                      | Any position, but disposals can falsified the measurement in case of upside down mounting     |
| Protection type                                         | Overvoltage protection<br>Overload protection<br>Reverse polarity<br>Short-circuit protection |

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|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                         | 1 LED 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                                   | 3.46 in (88 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Width                                    | 1.61 in (41 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Product weight                           | 0.41 lb(US) (0.186 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 | -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                              |

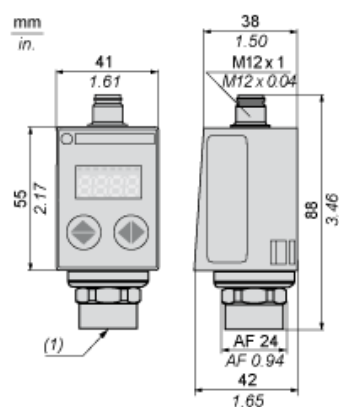
## Ordering and shipping details

|                       |                                         |
|-----------------------|-----------------------------------------|
| Category              | 21551 - XMLF,XMLF,XMLG PRESSURE SENSORS |
| Discount Schedule     | DS2                                     |
| GTIN                  | 003389119611459                         |
| Nbr. of units in pkg. | 1                                       |
| Package weight(Lbs)   | 0.4100000000000003                      |
| 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



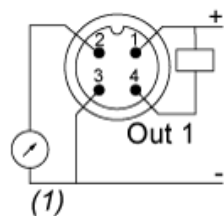
(1) Fluid entry: G 1/4 A female

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Connections and Schema

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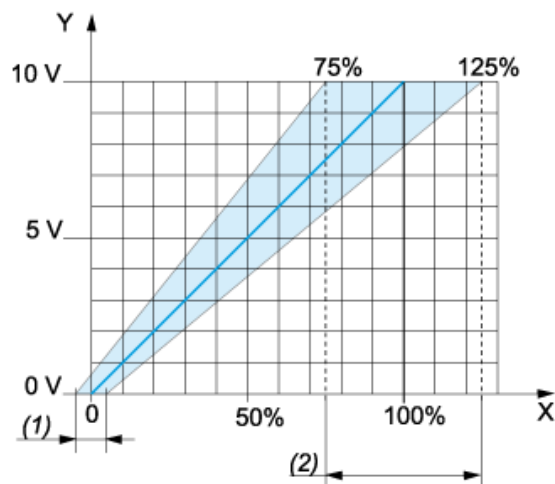
Connector Wiring



(1) I Out or V Out

## Analogue Output Description

Analogue Output Signal



X : Pressure

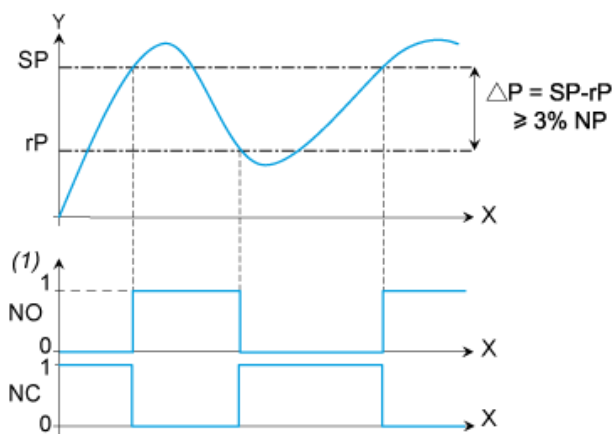
Y : Analogue output signal

(1) An offset of  $\pm 5\%$  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

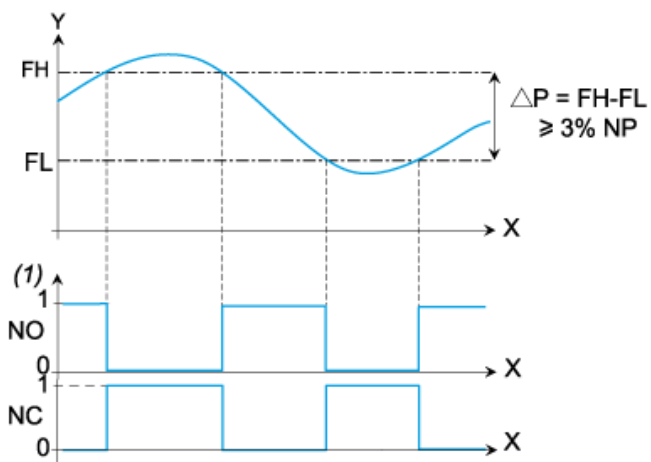
NP : Nominal Pressure

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

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

## Switching Output Description. Window Mode

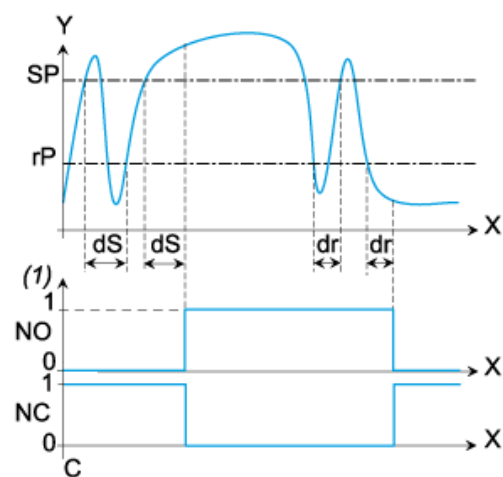
The window switching mode is typically used for the "pressure regulation applications"



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

# Mouser Electronics

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