

Price\* : 297.21 GBP



### 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                    | 250 bar<br>3620 psi                                                                                              |
| Maximum permissible accidental pressure | 75 MPa<br>750 bar<br>10875 psi                                                                                   |
| Destruction pressure                    | 1500 bar<br>21750 psi<br>150 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                   | 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                                  | Male connector M12, 4 pins          |
| Analogue output function                               | 4...20 mA                           |
| Type of output signal                                  | Analogue + discrete                 |
| Analogue output function                               | 4...20 mA                           |
| 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                  |
| Maximum voltage drop                                   | 2 V                                 |
| Adjustable range of switching point on rising pressure | 290...3625 psi<br>2...25 MPa        |

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                         | 20...250 bar                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Adjustable range of switching point on falling pressure | 181...3516 psi<br>12.5...242 bar<br>1.25...24.2 MPa                                                                                                                                                                                                                                                                                                                                                                                         |
| Minimum differential travel                             | 0.75 MPa<br>7.5 bar<br>109 psi                                                                                                                                                                                                                                                                                                                                                                                                              |
| Materials in contact with fluid                         | 316L stainless steel                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 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>Overload protection<br>Short-circuit protection                                                                                                                                                                                                                                                                                                                                               |
| Response time on output                                 | <= 10 ms for analog output<br><= 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                                        | 1 LED (yellow)light ON when switch is actuated:                                                                                                                                                                                                                                                                                                                                                                                             |
| Display response time type                              | Fast 50 ms<br>Normal 200 ms<br>Slow 600 ms                                                                                                                                                                                                                                                                                                                                                                                                  |
| Maximum 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                                                   | 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<br>Immunity to conducted RF disturbances: 10 V 0.15...80 MHz conforming to EN/IEC 61000-4-6<br>Surge immunity test: 1 kV conforming to EN/IEC 61000-4-5<br>Electrical fast transient/burst immunity test: 2 kV conforming to EN/IEC 61000-4-4<br>Electrostatic discharge immunity test: 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2 |

## 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

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| REACH free of SVHC         | Yes                                                                                               |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                                                                               |
| RoHS exemption information | <a href="#">Yes</a>                                                                               |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions



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

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Connections and Schema

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Connector Wiring



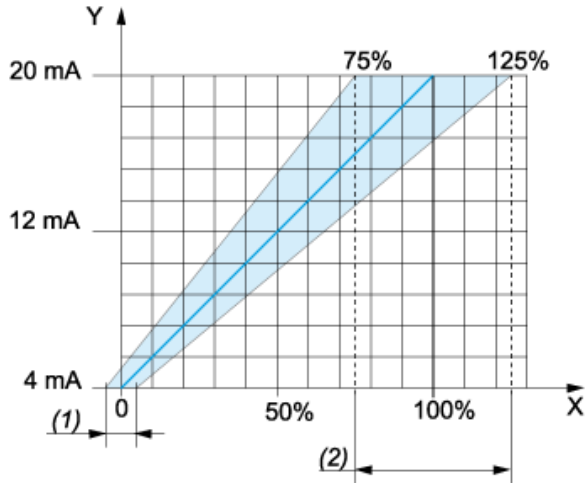
(1) I Out or V Out

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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)

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