

Product data sheet

Specifications



Electronic pressure sensors, Pressure sensors XM, XMLR 1 bar, G 1/4, 24 VDC, 2xPNP, M12

XMLR001G2P05

Main

| | |
|---|--|
| Range Of Product | Telemecanique Pressure sensors 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 Rating | 1 bar 99.97 kPa 100 kPa |
| Maximum Permissible Accidental Pressure | 7.5 bar 750 kPa 751.53 kPa |
| Destruction Pressure | 750 kPa 751.53 kPa 7.5 bar |
| Controlled Fluid | Fresh water (0...80 °C) Air (-20...80 °C) Hydraulic oil (-20...80 °C) 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 |
| Type Of Output Signal | Discrete |
| 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 |
| Maximum Voltage Drop | 2 V |
| Adjustable Range Of Switching Point On Rising Pressure | 0.08...1 bar 8.00...99.97 kPa 8...100 kPa |
| Adjustable Range Of Switching Point On Falling Pressure | 5.03...97.22 kPa 0.05...0.97 bar 5...97 kPa |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|--|--|
| Minimum Differential Travel | 0.03 bar 3 kPa 2.96 kPa |
| Materials In Contact With Fluid | Fluorocarbon FKM (Viton) Ceramic 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 | Overload protection Reverse polarity Overvoltage protection Short-circuit 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) for 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 | 93 mm |
| Width | 41 mm |
| Net Weight | 0.19 kg |
| [Uimp] Rated Impulse Withstand Voltage | 0.5 kV DC |
| Electromagnetic Compatibility | Susceptibility to electromagnetic fields: 10 V/m 80...2000 MHz conforming to IEC 61000-4-3 Immunity to conducted RF disturbances: 10 V 0.15...80 MHz conforming to IEC 61000-4-6 Surge immunity test: 1 kV conforming to IEC 61000-4-5 Electrical fast transient/burst immunity test: 2 kV conforming to IEC 61000-4-4 Electrostatic discharge immunity test: 8 kV air, 4 kV contact conforming to IEC 61000-4-2 |

Environment

| | |
|---------------------------------------|-----------------------------|
| Marking | CE |
| Product Certifications | cULus |
| Standards | 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 IEC 60529 IP67 conforming to IEC 60529 |
| Vibration Resistance | 20 gn (f= 10...2000 Hz) conforming to IEC 60068-2-6 |
| Shock Resistance | 50 gn conforming to IEC 60068-2-27 |

Packing Units

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|------------------------------|-----------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 6.500 cm |
| Package 1 Width | 7.500 cm |
| Package 1 Length | 13.000 cm |
| Package 1 Weight | 184.000 g |
| Unit Type Of Package 2 | S02 |
| Number Of Units In Package 2 | 20 |
| Package 2 Height | 15 cm |
| Package 2 Width | 30 cm |
| Package 2 Length | 40 cm |
| Package 2 Weight | 4.020 kg |

Sustainability




Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

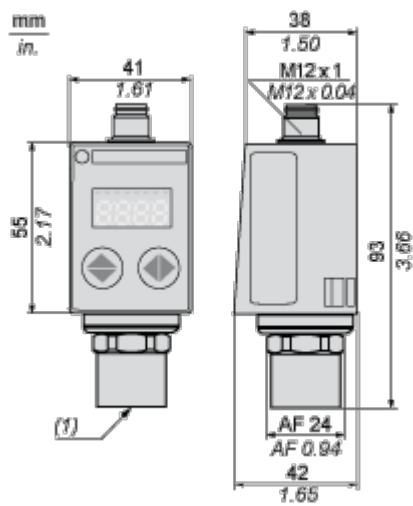
[Guide to assess a product's sustainability >](#)

Well-being performance

| | |
|--|--|
|  Reach Free Of Svhc | |
|  Mercury Free | |
|  Rohs Exemption Information | Yes |
| Reach Regulation | REACH Declaration |
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| California Proposition 65 | WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Diisodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |

Dimensions Drawings

Dimensions

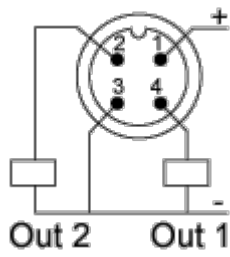


(1) Fluid entry: G 1/4 A female

Connections and Schema

Connections and Schema

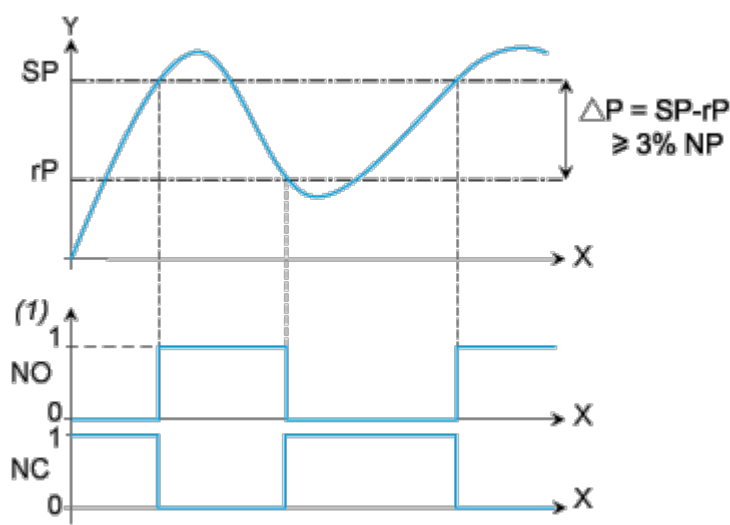
Connector Wiring



Performance Curves

Switching Output Description. Hysteresis Mode

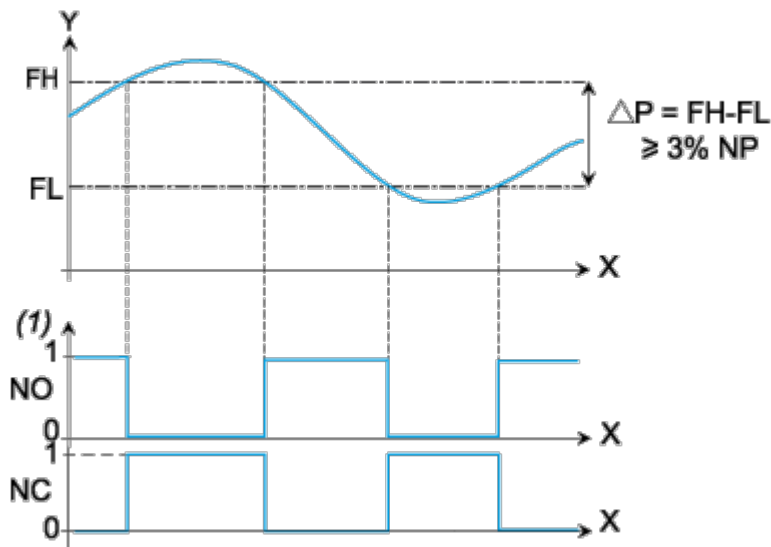
The hysteresis switching mode is typically used for the “pumping and/or emptying applications”.



- 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

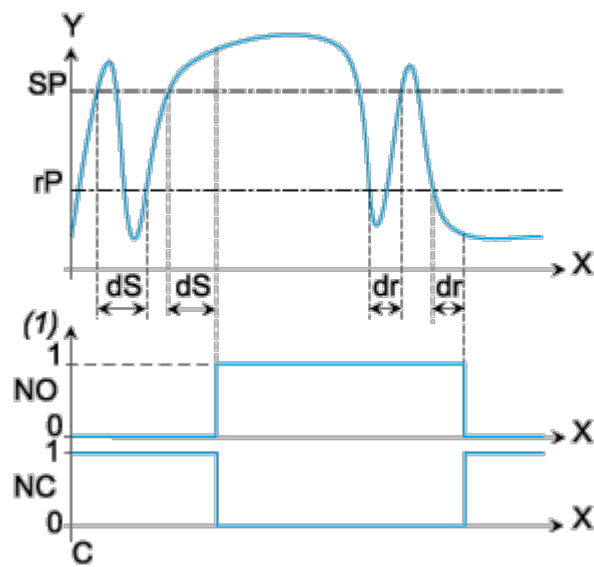
The window switching mode is typically used for the “pressure regulation applications”



- 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