Product data sheet

Specifications

Electronic pressure sensors, Pressure sensors XM, XMLR 25 bar, G 1/4, 24 VDC, 2xPNP, M12

XMLR025G2P05

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	2495.9 kPa 25 bar
Maximum permissible accidental pressure	10 MPa 100 bar 9997.4 kPa
Destruction pressure	100 bar 10 MPa 9997.4 kPa
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	0.2…2.5 MPa 199.9…2495.9 kPa 2…25 bar
Adjustable range of switching point on falling pressure	124.8…2427.0 kPa 0.125…2.42 MPa 1.25…24.2 bar
Minimum differential travel	0.75 bar 75.2 kPa 75 kPa

Materials in contact with fluid	Ceramic Fluorocarbon FKM (Viton) 316L stainless steel
Front material	Polyester
Housing material	316L stainless steel Polyacrylamide
Operating position	Any position, but disposals can falsified the measurement in case of upside down mounting
Protection type	Reverse polarity Short-circuit protection Overvoltage protection Overload 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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.5 cm
Package 1 Width	7.5 cm
Package 1 Length	12.7 cm
Package 1 Weight	181.0 g

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-CO_2 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 >

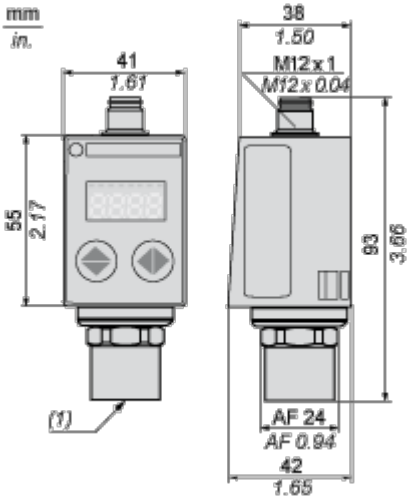
Well-being performance

Reach Free Of Svhc	
Mercury Free	
Rohs Exemption Information	Yes

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 Di-isodecyl 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

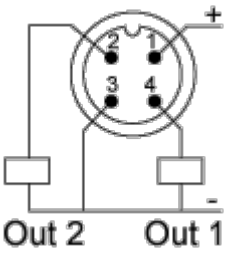


(1) Fluid entry: G 1/4 A female

Connections and Schema

Connections and Schema

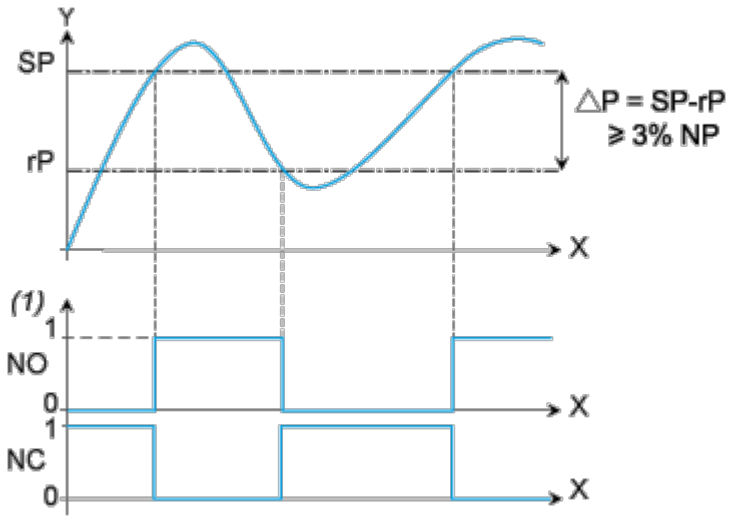
Connector Wiring



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

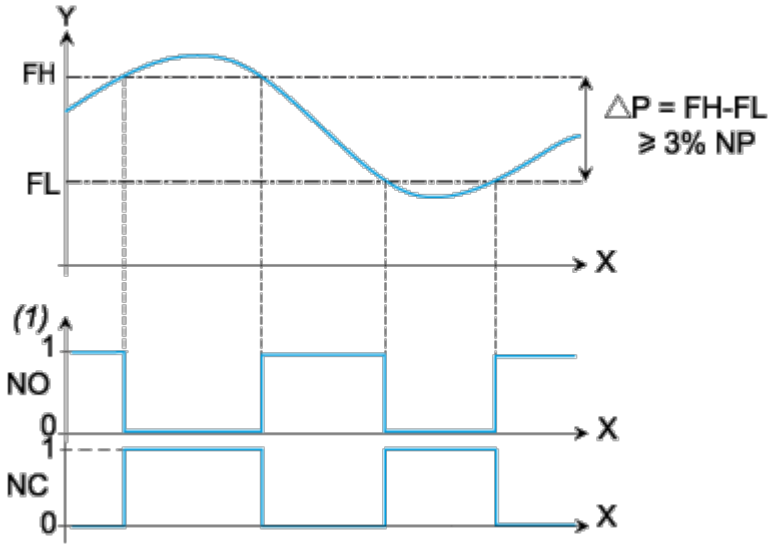
NP : Nominal Pressure

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

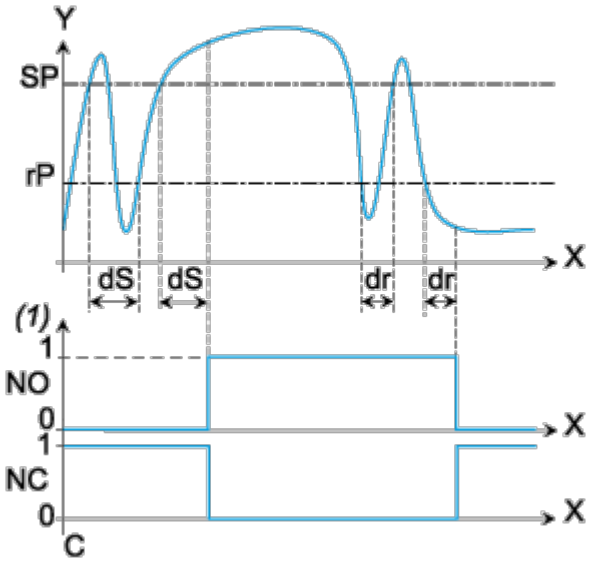
NP : Nominal pressure

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