

# Product data sheet

Specifications



## Electronic pressure sensors, Pressure sensors XM, XMLR 600 bar, G 1/4, 24 VDC, 2xPNP, M12

XMLR600M2P05

! Discontinued on: 20 April 2022

! Discontinued

### Main

Range of product	OsiSense 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	59984.39 kPa 600 bar
Maximum permissible accidental pressure	149960.96 kPa 150 MPa 1500 bar
Destruction pressure	250 MPa 249934.94 kPa 2500 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	4.8...60 MPa 48...600 bar 4798.75...59984.39 kPa
Adjustable range of switching point on falling pressure	2999.22...58184.85 kPa 30...582 bar

	3...58.2 MPa
<b>Minimum differential travel</b>	1799.53 kPa 1.8 MPa 18 bar
<b>Materials in contact with fluid</b>	316L stainless steel
<b>Front material</b>	Polyester
<b>Housing material</b>	316L stainless steel Polyacrylamide
<b>Operating position</b>	Any position, but disposals can falsified the measurement in case of upside down mounting
<b>Protection type</b>	Overvoltage protection Short-circuit protection Reverse polarity Overload protection
<b>Response time on output</b>	<= 5 ms for discrete output
<b>Switching output time delay</b>	0...50 s in steps of 1 second
<b>Display type</b>	4 digits 7 segments
<b>Local signalling</b>	2 LEDs (yellow) for light ON when switch is actuated
<b>Display response time type</b>	Fast 50 ms Normal 200 ms Slow 600 ms
<b>Maximum delay first up</b>	300 ms
<b>Overall accuracy</b>	<= 1 % of the measuring range
<b>Measurement accuracy on switching output</b>	<= 0.6 % of the measuring range
<b>Repeat accuracy</b>	<= 0.2 % of the measuring range
<b>Drift of the sensitivity</b>	+/- 0.03 % of measuring range/°C
<b>Drift of the zero point</b>	+/- 0.1 % of measuring range/°C
<b>Display accuracy</b>	<= 1 % of the measuring range
<b>Mechanical durability</b>	10000000 cycles
<b>Depth</b>	42 mm
<b>Height</b>	88 mm
<b>Width</b>	41 mm
<b>Net weight</b>	0.186 kg
<b>[Uimp] rated impulse withstand voltage</b>	0.5 kV DC
<b>Electromagnetic compatibility</b>	Susceptibility to electromagnetic fields: 10 V/m 80...2000 MHz conforming to EN/IEC 61000-4-3 Immunity to conducted RF disturbances: 10 V 0.15...80 MHz conforming to EN/IEC 61000-4-6 Surge immunity test: 1 kV conforming to EN/IEC 61000-4-5 Electrical fast transient/burst immunity test: 2 kV conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test: 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2
<b>Environment</b>	
<b>Marking</b>	CE
<b>Product certifications</b>	EAC cULus
<b>Standards</b>	UL 61010-1 EN/IEC 61326-2-3
<b>Ambient air temperature for operation</b>	-20...80 °C
<b>Ambient air temperature for storage</b>	-40...80 °C
<b>IP degree of protection</b>	IP65 conforming to EN/IEC 60529 IP67 conforming to EN/IEC 60529

<b>Vibration resistance</b>	20 gn (f= 10...2000 Hz) conforming to EN/IEC 60068-2-6
<b>Shock resistance</b>	50 gn conforming to EN/IEC 60068-2-27

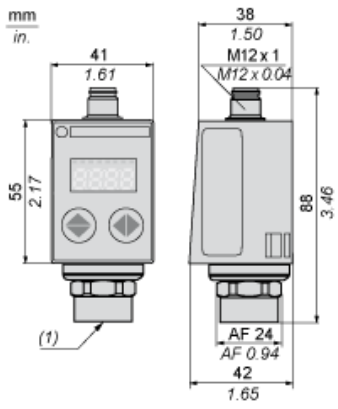
## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	184.0 g
<b>Package 1 Height</b>	6.5 cm
<b>Package 1 width</b>	7.5 cm
<b>Package 1 Length</b>	13.0 cm
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	20
<b>Package 2 Weight</b>	4.02 kg
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm

## Offer Sustainability

<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>California proposition 65</b>	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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions

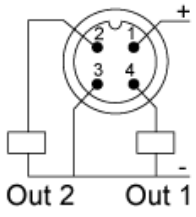


(1) Fluid entry: G 1/4 A female

**Connections and Schema**

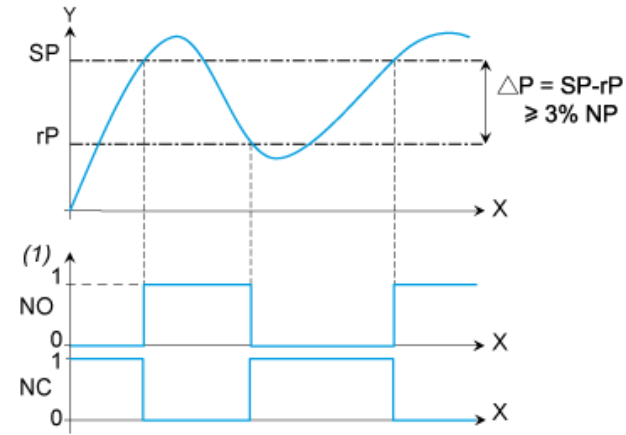
---

**Connector Wiring**



Switching Output Description. Hysteresis Mode

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

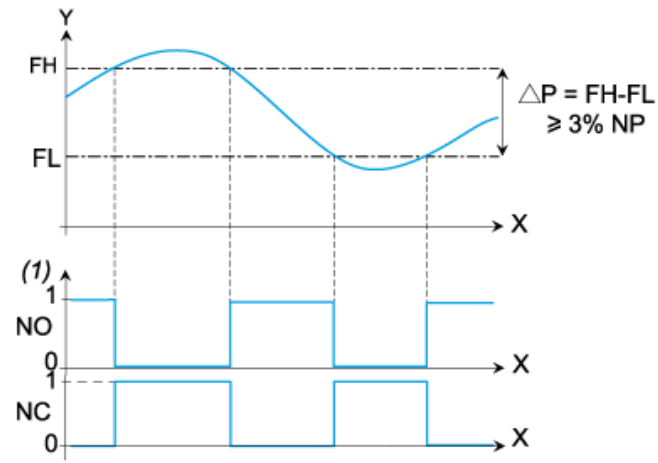


- X : Time
- Y : Pressure
- (1) Output
- NP : Nominal Pressure
- SP : Set point (adjustable from 8 % to 100 % NP)
- rP : Reset point (adjustable from 5 % to 97 % NP)

Switching Output Description. Window Mode

---

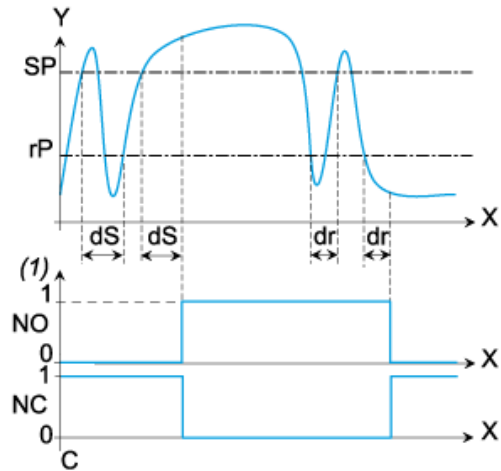
The window switching mode is typically used for the “pressure regulation applications”



- 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

**Recommended replacement(s)**

XMLR600M2P05 is replaced by the following product range:



**pressure sensors XM**  
Sensors for pressure control  
Products: 729