

# Product data sheet

Specifications



## Electronic pressure sensors, Pressure sensors XM, XMLR 400 bar, G 1/4, 24 VDC, 4...20 mA, PNP, M12

XMLR400M1P25

**Product availability : Stock - Normally stocked in distribution facility**

**Price\* : 345.00 USD**

### 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 Rating	5801.51 psi (400 bar) 5800 psi (39989.59 kPa)
Maximum permissible accidental pressure	17404.53 psi (1200 bar) 17400 psi (119968.77 kPa) 120 MPa
Destruction pressure	240 MPa 34809.06 psi (2400 bar) 34800 psi (239937.54 kPa)
Controlled fluid	Fresh water 32...176 °F (0...80 °C)) Air -4...176 °F (-20...80 °C)) Hydraulic oil -4...176 °F (-20...80 °C)) Refrigeration fluid -4...176 °F (-20...80 °C))
Fluid connection type	G 1/4 (female) DIN 3852-Y
[Us] rated supply voltage	24 V DC SELV 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 PNP, NO/NC programmable
Maximum switching current	250 mA
Contacts type and composition	NO/NC programmable
Scale type	Fixed differential
Maximum voltage drop	2 V

\* Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Adjustable range of switching point on rising pressure</b>	464...5800 psi (3199.17...39989.59 kPa) 464.12...5801.51 psi (32...400 bar) 3.2...40 MPa
<b>Adjustable range of switching point on falling pressure</b>	290...5626 psi (1999.48...38789.90 kPa) 290.08...5627.46 psi (20...388 bar) 2...38.8 MPa
<b>Minimum differential travel</b>	174.05 psi (12 bar) 1.2 MPa 174 psi (1199.69 kPa)
<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>	Reverse polarity Short-circuit protection Overload protection Overvoltage protection
<b>Response time on output</b>	<= 10 ms analog output <= 5 ms 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>	for light ON when switch is actuated 1 LED (yellow)
<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>Linearity error on analogue output</b>	<= 0.5 % of the measuring range
<b>Hysteresis on analogue output</b>	<= 0.2 % 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>	1.65 in (42 mm)
<b>Height</b>	3.46 in (88 mm)
<b>Width</b>	1.61 in (41 mm)
<b>Net Weight</b>	0.41 lb(US) (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 EN/IEC 61000-4-3 Immunity to conducted RF disturbances 10 V 0.15...80 MHz EN/IEC 61000-4-6 Surge immunity test 1 kV EN/IEC 61000-4-5 Electrical fast transient/burst immunity test 2 kV EN/IEC 61000-4-4 Electrostatic discharge immunity test 8 kV air, 4 kV contact EN/IEC 61000-4-2

## Environment

<b>Marking</b>	CE
<b>Product Certifications</b>	cULus EAC
<b>Standards</b>	EN/IEC 61326-2-3

UL 61010-1

<b>Ambient Air Temperature for Operation</b>	-4...176 °F (-20...80 °C)
<b>Ambient Air Temperature for Storage</b>	-40...176 °F (-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 10...2000 Hz)EN/IEC 60068-2-6
<b>Shock resistance</b>	50 gn EN/IEC 60068-2-27

## Ordering and shipping details

<b>Category</b>	21551-XMLE,XMLF,XMLG PRESSURE SENSORS
<b>Discount Schedule</b>	DS2
<b>GTIN</b>	3389119611824
<b>Nbr. of units in pkg.</b>	1
<b>Package weight(Lbs)</b>	6.49 oz (184.0 g)
<b>Returnability</b>	No
<b>Country of origin</b>	CH

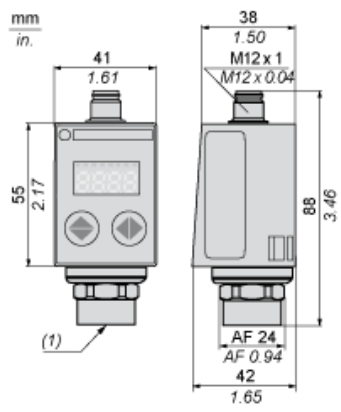
## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Package 1 Height</b>	2.56 in (6.5 cm)
<b>Package 1 width</b>	2.95 in (7.5 cm)
<b>Package 1 Length</b>	5.12 in (13 cm)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	20
<b>Package 2 Weight</b>	8.86 lb(US) (4.02 kg)
<b>Package 2 Height</b>	5.91 in (15 cm)
<b>Package 2 width</b>	11.81 in (30 cm)
<b>Package 2 Length</b>	15.75 in (40 cm)

## Offer Sustainability

<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>
<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>

Dimensions

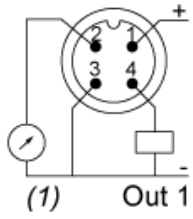


(1) Fluid entry: G 1/4 A female

**Connections and Schema**

---

**Connector Wiring**

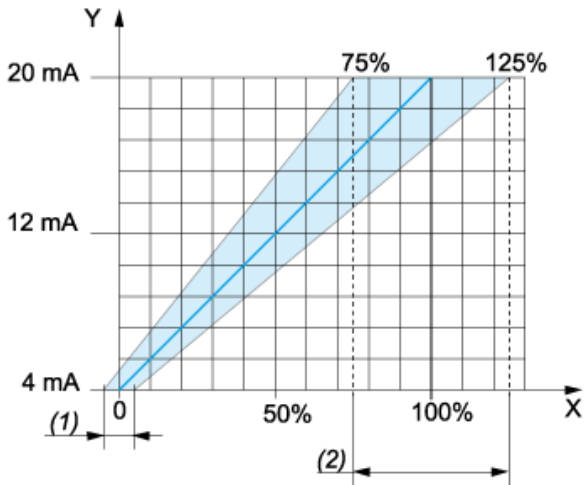


(1) I Out or V Out

Analogue Output Description

---

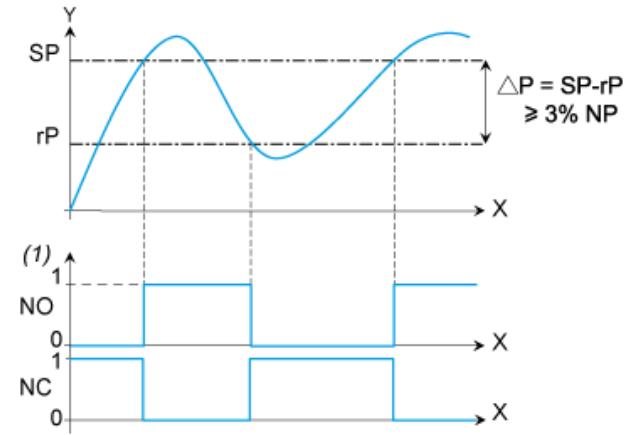
Analogue Output Signal



- 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).

Switching Output Description. Hysteresis Mode

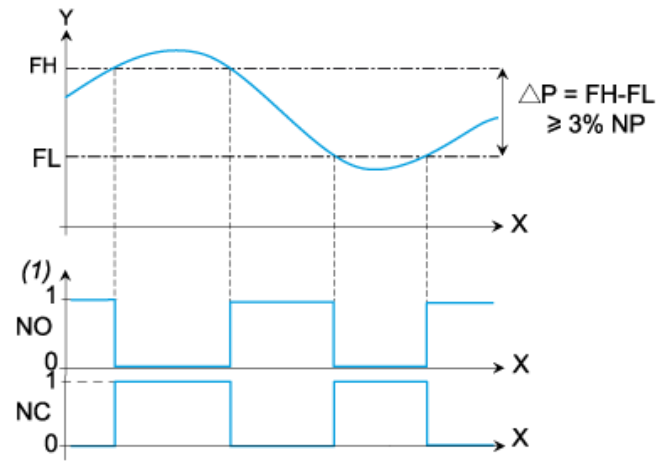
The hysteresis switching mode is typically used for the "pumping and/or emptying applications".



- 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”

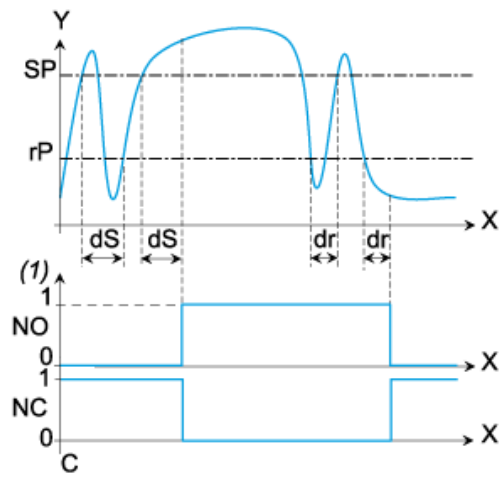


- X : Time
- Y : Pressure
- (1) Output
- NP : Nominal pressure
- FH : High switching point (adjustable from 8 % to 100 % NP)
- FL : Low switching point (adjustable from 5 % to 97 % NP)



**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