

# Product data sheet

## Characteristics

# XMLR100M1N26

Pressure sensors XMLR 100bar - 1/4" 18 NPT - 24VDC - 4..20 mA - NPN - M12

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 sensor size	1450.38 psi (100 bar) 1450 psi
Maximum permissible accidental pressure	4351.13 psi (300 bar) 4350 psi 30 MPa
Destruction pressure	8702.26 psi (600 bar) 8700 psi 60 MPa
Controlled fluid	Fresh water (32...176 °F (0...80 °C)) Air (-20...80 °C) Hydraulic oil (-20...80 °C) Refrigeration fluid (-20...80 °C)
Fluid connection type	1/4" - 18 NPT (female)
[Us] rated supply voltage	24 V DC SELV, voltage limits: 17...33 V

### Complementary

Current consumption	<= 50 mA
Electrical connection	4 pins M12 male connector
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
Voltage drop	<= 2 V
Adjustable range of switching point on rising pressure	116.03...1450.38 psi (8...100 bar) 116...1450 psi

	0.8...10 MPa
Adjustable range of switching point on falling pressure	72.52...1406.87 psi (5...97 bar) 72.5...1407 psi 0.5...9.7 MPa
Minimum differential travel	43.51 psi (3 bar) 43.5 psi 0.3 MPa
Materials in contact with fluid	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 Overvoltage protection Reverse polarity Short-circuit protection
Response time on output	<= 10 ms analog output <= 5 ms 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 Normal 200 ms Slow 600 ms
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	1.65 in (42 mm)
Height	3.46 in (88 mm)
Width	1.61 in (41 mm)
Product weight	0.41 lb(US) (0.186 kg)
[Uimp] rated impulse withstand voltage	0.5 kV DC
Electromagnetic compatibility	Electrostatic discharge immunity test - test level 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2 Susceptibility to electromagnetic fields - test level 10 V/m (80...2000 MHz) conforming to EN/IEC 61000-4-3 Electrical fast transient/burst immunity test - test level 2 kV conforming to EN/IEC 61000-4-4 Surge immunity test - test level 1 kV conforming to EN/IEC 61000-4-5 Immunity to conducted RF disturbances - test level 10 V (0.15...80 MHz) conforming to EN/IEC 61000-4-6

## Environment

Marking	CE
Product certifications	CULus EAC
Standards	UL 61010-1 EN/IEC 61326-2-3
Ambient air temperature for operation	-4...176 °F (-20...80 °C)
Ambient air temperature for storage	-40...176 °F (-40...80 °C)
IP degree of protection	IP65 conforming to EN/IEC 60529 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

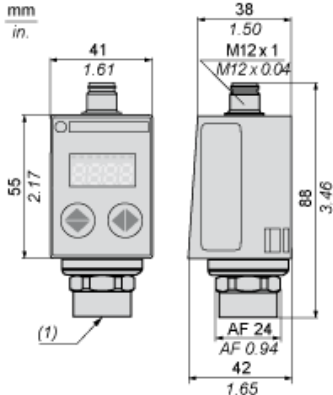
### Ordering and shipping details

Category	21551 - XMLE,XMLF,XMLG PRESSURE SENSORS
Discount Schedule	DS2
GTIN	00785901288053
Nbr. of units in pkg.	1
Package weight(Lbs)	0.4000000000000002
Returnability	N
Country of origin	CH

### Offer Sustainability

RoHS (date code: YYWW)	Compliant - since 1351 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
California proposition 65	WARNING: This product can expose you to chemicals including:
----- Substance 1	Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and
----- Substance 2	Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.
----- More information	For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>

Dimensions



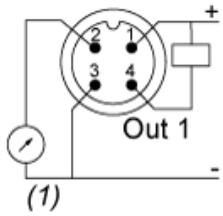
(1) Fluid entry: 1/4"-18NPT female

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Connections and Schema

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Connector Wiring



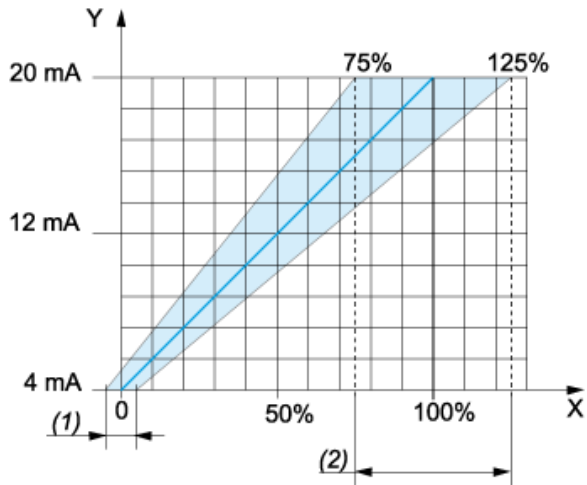
(1) I Out or V Out

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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)

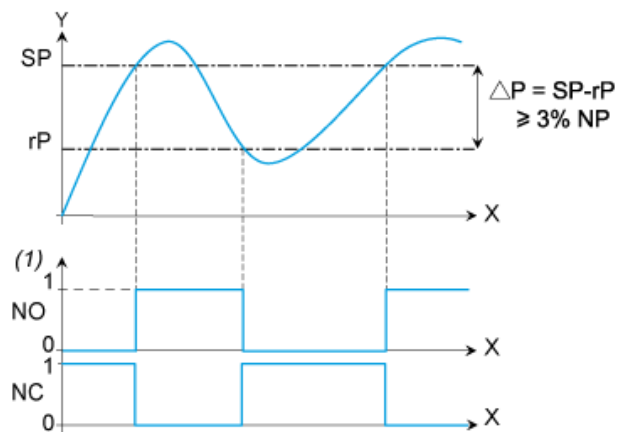
(2) The analogue curve can be adjusted from -25% to +25% of nominal pressure (with AEP Configuration menu. AEP: analogue end point).

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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”.



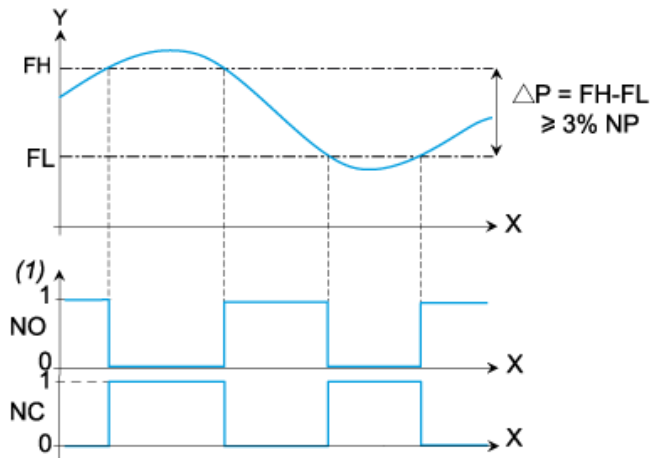
- X : Time
- Y : Pressure
- (1) Output
- NP : Nominal Pressure
- SP : Set point (adjustable from 8 % to 100 % NP)
- rP : Reset point (adjustable from 5 % to 97 % NP)

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Switching Output Description. Window Mode

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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