Product datasheet Characteristics

XMLR400M1N75



Main

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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	5801.51 psi (400 bar) 5800 psi
Maximum permissible accidental pressure	l 17404.53 psi (1200 bar) 17400 psi 120 MPa
Destruction pressure	34809.06 psi (2400 bar) 34800 psi 240 MPa
Controlled fluid	Fresh water (32176 °F (080 °C)) Air (-2080 °C) Hydraulic oil (-2080 °C) Refrigeration fluid (-2080 °C)
Fluid connection type	G 1/4 (female) conforming to DIN 3852-Y
[Us] rated supply voltage	24 V DC SELV, voltage limits: 1733 V

Complementary

Complementary	
Current consumption	<= 50 mA
Electrical connection	4 pins M12 male connector
Analogue output function	010 V
Type of output signal	Analogue + discrete
Analogue output function	010 V
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	464.125801.51 psi (32400 bar) 4645800 psi 3.240 MPa
Adjustable range of switching point on falling pressure	290.085627.46 psi (20388 bar) 2905626 psi 238.8 MPa
Minimum differential travel	174.05 psi (12 bar) 174 psi 1.2 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
Time delay range	050 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
Accuracy	<= 1 % of the measuring range
Linearity error	<= 0.5 % of the measuring range
Hysteresis	<= 0.2 % of the measuring range
Measurement accuracy	<= 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	>= 1000000 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 (802000 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 (0.1580 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	-4176 °F (-2080 °C)	
ambient air temperature for storage	-40176 °F (-4080 °C)	
IP degree of protection	IP65 conforming to EN/IEC 60529 IP67 conforming to EN/IEC 60529	
vibration resistance	20 gn (f = 102000 Hz) conforming to EN/IEC 60068-2-6	
shock resistance	50 gn conforming to EN/IEC 60068-2-27	

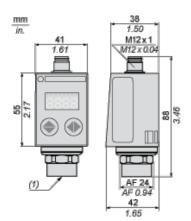
Offer Sustainability

Not Green Premium product	Not Green Premium product
Compliant - since 1351 - Schneider Electric declaration of conformity	Compliant - since 1351 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and	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.	eDi-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 For more information go to www.p65warnings.ca.gov

Dimensions

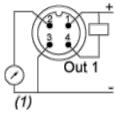




(1) Fluid entry: G 1/4 A female

Connections and Schema

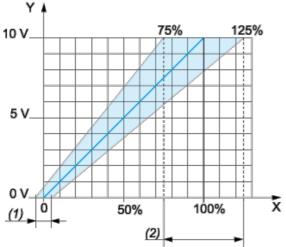
Connector Wiring



(1) I Out or V Out

Analogue Output Description

Analogue Output Signal

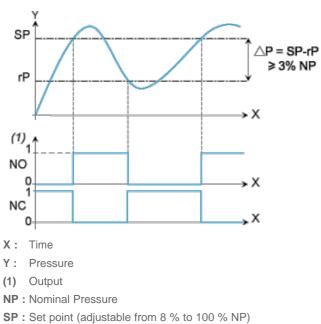


- X: Pressure
- Y: Analogue output signal
- (1) An offset of +/-5% of nominal pressure can be compensated (with Cof Configuration menu. Cof: Offset Compensation)
- (2) The Analogue curve can be adjusted from -25% to +25% of nominal pressure (with AEP Configuration menu. AEP: analogue end point).

Switching Output Description. Hysteresis Mode

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

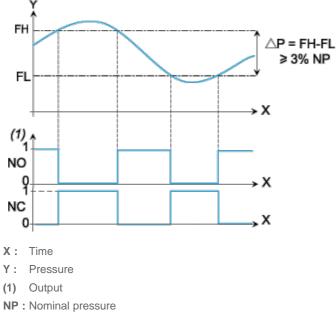




- **rP**: Reset point (adjustable from 5 % to 97 % NP)

Switching Output Description. Window Mode

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



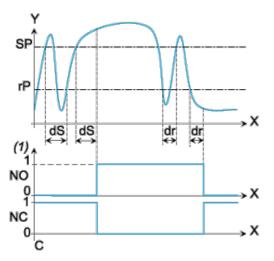
FH : High switching point (adjustable from 8 % to 100 % NP)

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
- $\ensuremath{\mathsf{dS}}$: Time delay on the set point
- dr : Time delay on the reset point

