# XMLR2D5G1P25

Electronic pressure sensors, Pressure sensors XM, XMLR 2,5 bar, G 1/4, 24 VDC, 4...20 mA, PNP, M12



### 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 transmitter with 1 switching output
Device short name	XMLR
Pressure rating	250 KPa 2.5 Bar 248.2 kPa
Maximum permissible accidental pressure	1199.7 KPa 12 Bar 1200 kPa
Destruction pressure	12 Bar 1199.7 KPa 1200 kPa
Controlled fluid	Fresh water (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	Male connector M12, 4 pins
Analogue output function	420 mA
Type of output signal	Analogue + discrete
Analogue output function	420 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
Adjustable range of switching point on rising pressure	20250 KPa 20.0249.6 KPa 0.22.5 bar
Adjustable range of switching point on falling pressure	13242 KPa 0.132.42 Bar 12.48242.7 kPa
Minimum differential travel	0.08 Bar 7.6 KPa 8 kPa
Materials in contact with fluid	Ceramic Fluorocarbon FKM (Viton) 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	Short-circuit protection Overvoltage protection Reverse polarity Overload protection	
Response time on output	<= 10 ms for analog output <= 5 ms for discrete output	
Switching output time delay	050 s in steps of 1 second	
Display type	4 digits 7 segments	
Local signalling	1 LED (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	
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	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 802000 MHz conforming to IEC 61000-4-3 Immunity to conducted RF disturbances: 10 V 0.1580 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

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Marking	CE	
Product certifications	cULus	
Standards	IEC 61326-2-3 UL 61010-1	
Ambient air temperature for operation	-2080 °C	
Ambient air temperature for storage	-4080 °C	
IP degree of protection	IP65 conforming to IEC 60529 IP67 conforming to IEC 60529	
Vibration resistance	20 gn (f= 102000 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	6.500 cm	
Package 1 Width	7.500 cm	
Package 1 Length	13.000 cm	
Package 1 Weight	184.000 g	
Unit Type of Package 2	S02	
Number of Units in Package 2	20	
Package 2 Height	15 cm	
Package 2 Width	30 cm	

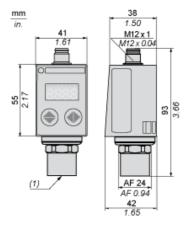


Package 2 Length	40 cm
Package 2 Weight	4.020 kg
Offer Sustainability	
California proposition 65	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
For all Reach Rohs enquiries contact us at	sustainability@tesensors.com



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### **Dimensions**



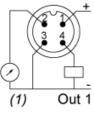
(1) Fluid entry: G 1/4 A female

## Product data sheet Connections and Schema

# XMLR2D5G1P25

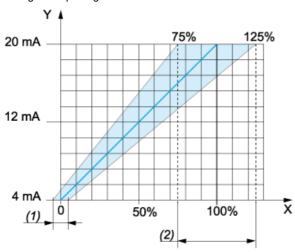
### Connections and Schema

## **Connector Wiring**



### **Analogue Output Description**

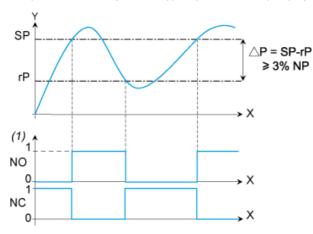
### Analogue Output Signal



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

### Switching Output Description. Hysteresis Mode

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



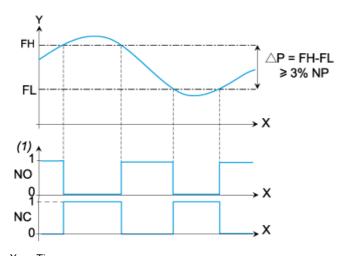
**X**: Time Υ: Pressure (1) Output NP: Nominal Pressure

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

 $\ensuremath{\mathsf{SP}}$  : Set point (adjustable from 8 % to 100 % NP)

## Switching Output Description. Window Mode

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



X: Time Y: Pressure (1) Output

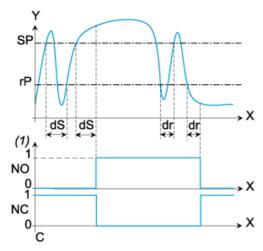
NP: Nominal pressure

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