

# Product data sheet

Specifications



Electronic pressure sensors,  
Pressure sensors XM, Display &  
switch ZMLP, 24 VDC, 4...20 mA,  
NPN, hysteresis, M12

ZMLPA1N2SH

## Main

Range Of Product	OsiSense XM
Product Or Component Type	Electronic pressure sensors
Device Short Name	ZMLP

## Complementary

Display Range	-14.5...6000
[Us] Rated Supply Voltage	24 V DC SELV (voltage limits: 17...33 V)
Current Consumption	<= 50 mA
Electrical Connection	Female connector M12, 2 pins Male connector M12, 4 pins
Type Of Output Signal	Analogue + discrete
Analogue Output Function	4...20 mA
Discrete Output Type	Solid state NPN, NO/NC programmable
Switching Function	Hysteresis
Maximum Switching Current	200 mA
Maximum Voltage Drop	2 V
Adjustable Range Of Switching Point On Rising Pressure	5...98 % of selected display range
Adjustable Range Of Switching Point On Falling Pressure	2...95 % of selected display range
Minimum Differential Travel	3 % of selected display range
Marking	CE
Front Material	Polyester
Housing Material	PBT Valox
Operating Position	Any position
Protection Type	Short-circuit protection Overload protection Reverse polarity Overvoltage protection
Response Time On Output	<= 3 ms for analog output <= 3 ms for discrete output
Display Type	4 digits 7 segments
Local Signalling	1 LED (yellow) for light ON when switch is actuated
Response Time	300 ms
Maximum Delay First Up	100 ms

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Accuracy	<= - 0.1 % of the measuring range
Measurement Accuracy	<= 1 % of the measuring range
Display Accuracy	<= 1 % of the measuring range
Mechanical Durability	10000000 cycles
Depth	42 mm
Height	77 mm
Width	41 mm
Net Weight	0.103 kg
[Uimp] Rated Impulse Withstand Voltage	0.5 kV DC

## Environment

Product Certifications	cULus
Standards	IEC 61000-6-4 UL 508 IEC 61000-6-2
Ambient Air Temperature For Operation	-25...70 °C
Ambient Air Temperature For Storage	-30...80 °C
Ip Degree Of Protection	IP67 conforming to IEC 60529 IP65 conforming to IEC 60529 IP69K conforming to DIN 40050
Vibration Resistance	5 gn (f= 10...2000 Hz) conforming to IEC 60068-2-6
Shock Resistance	25 gn conforming to IEC 60068-2-27
Electromagnetic Compatibility	Immunity to conducted RF disturbances: 10 V 0.15...80 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 Susceptibility to electromagnetic fields: 10 V/m 80...2000 MHz conforming to IEC 61000-4-3 Electrostatic discharge immunity test: 8 kV air, 4 kV contact conforming to IEC 61000-4-2

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	4.3 cm
Package 1 Width	4.7 cm
Package 1 Length	8.7 cm
Package 1 Weight	105.0 g
Unit Type Of Package 2	S01
Number Of Units In Package 2	24
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.706 kg

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



RoHS/REACH

## Well-being performance

✓ Mercury Free

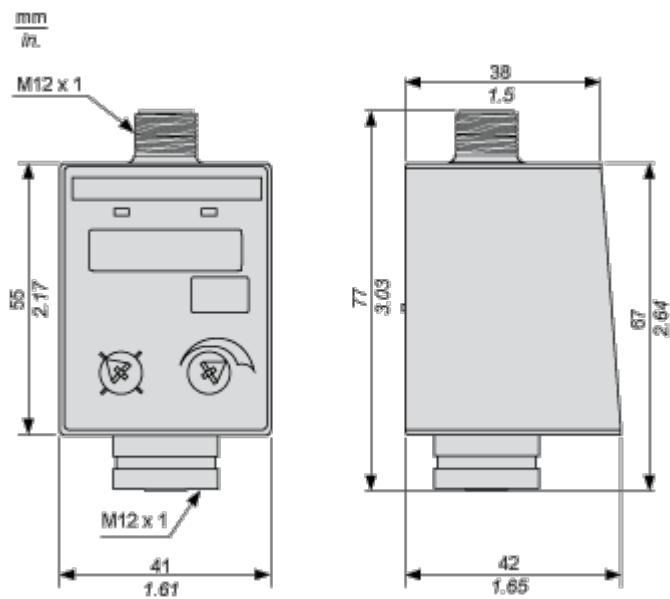
✓ Rohs Exemption Information [Yes](#)

## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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 Diisodecyl 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>

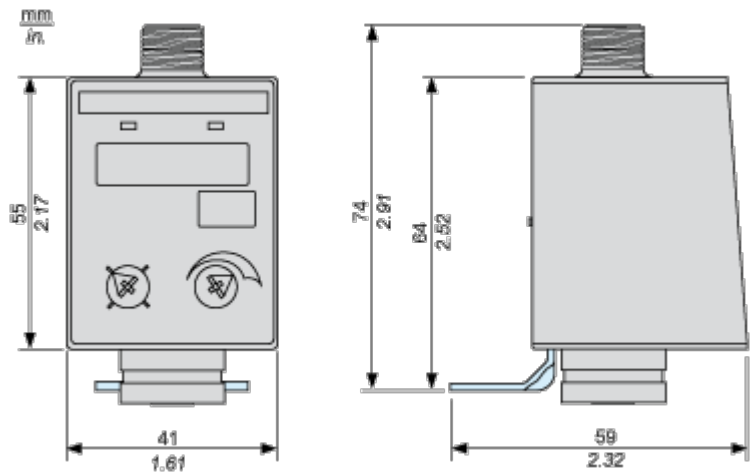
Dimensions Drawings

Dimensions



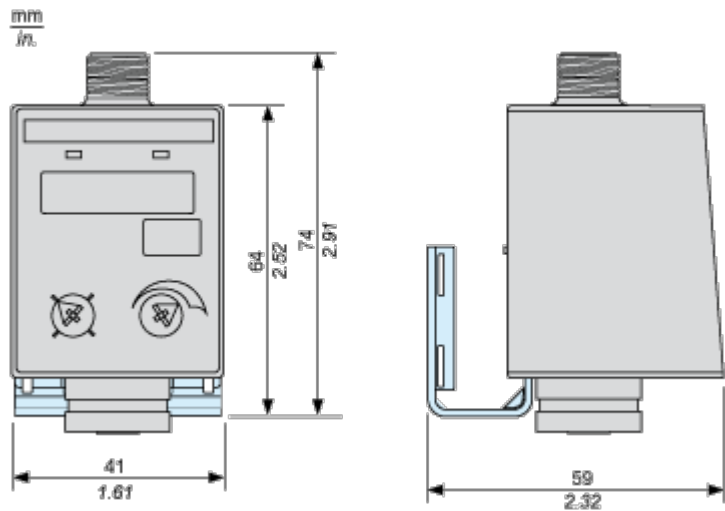
Dimensions

Switch with Metal Bracket for Fixing Horizontally



Dimensions

Switch with Metal Bracket for Fixing Vertically or on an Inlet Pipe

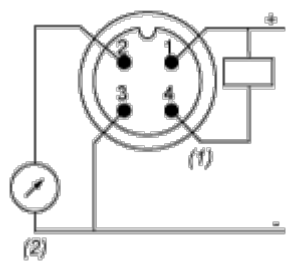


Connections and Schema

Connections and Schema

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Output M12 Male Connector Wiring

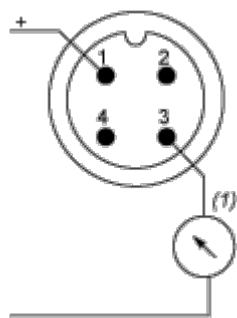


- (1) Out
- (2) I Out

Connections and Schema

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Input M12 Female Connector Wiring



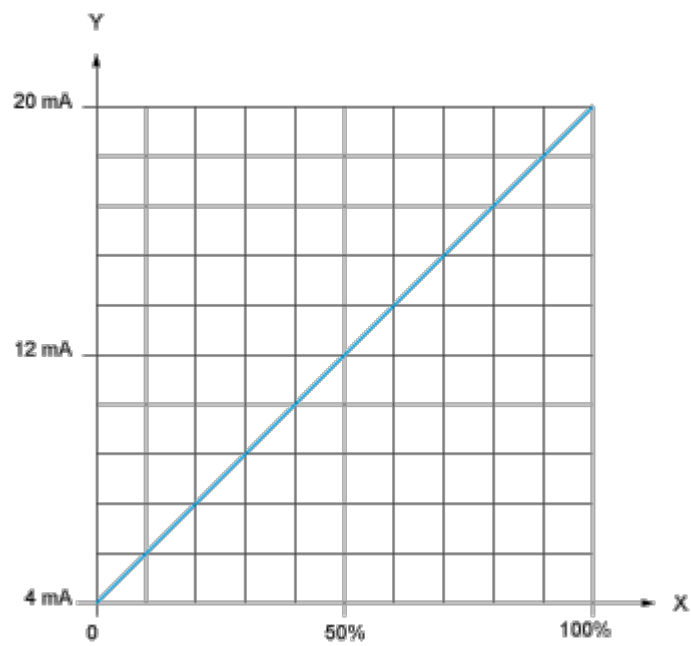
(1)  $I_{in} = 4-20\text{ mA}$



Performance Curves

Analog Output Description

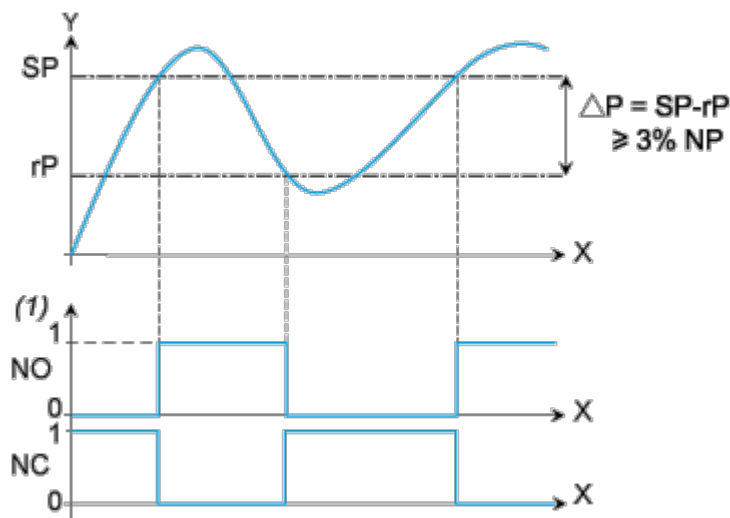
The 4...20 mA analog output is strictly the image of the pressure transmitter output signal.



X : Pressure  
Y : Analog output signal

Switching Output Description. Hysteresis Mode

The hysteresis switching mode is typically used for the pumping applications.



X : Time

Y : Pressure

(1) Output

NP : Nominal Pressure

SP : Set point (adjustable from 5 % to 98 % NP)

rP : Reset point (adjustable from 2 % to 95 % NP)