

Product data sheet

Specifications



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

ZMLPA1P2SH

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 PNP, 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	Reverse polarity Overload protection Short-circuit protection 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	4.200 cm
Package 1 Width	4.600 cm
Package 1 Length	8.400 cm
Package 1 Weight	106.000 g
Unit Type Of Package 2	S01
Number Of Units In Package 2	24
Package 2 Height	15 cm
Package 2 Width	15 cm
Package 2 Length	40 cm
Package 2 Weight	2.705 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-CO₂ 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

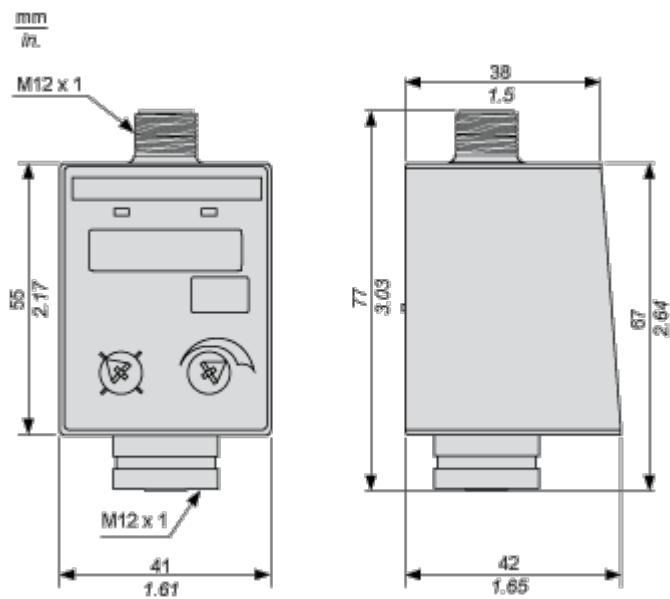
Reach Regulation [REACH Declaration](#)

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 www.P65Warnings.ca.gov

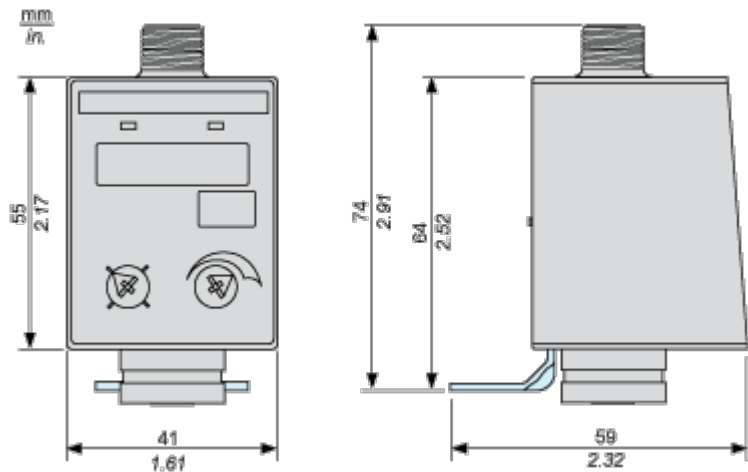
Dimensions Drawings

Dimensions



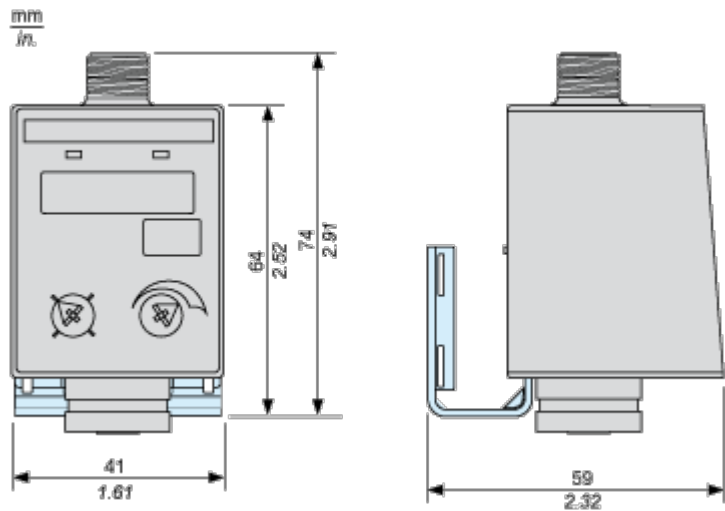
Dimensions

Switch with Metal Bracket for Fixing Horizontally



Dimensions

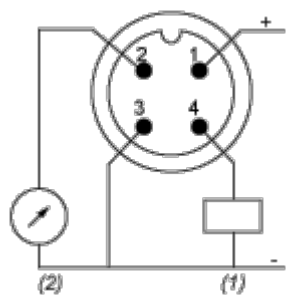
Switch with Metal Bracket for Fixing Vertically or on an Inlet Pipe



Connections and Schema

Connections and Schema

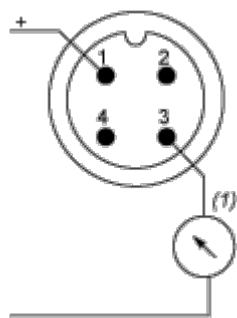
Output M12 Male Connector Wiring



- (1) Out
- (2) I Out

Connections and Schema

Input M12 Female Connector Wiring

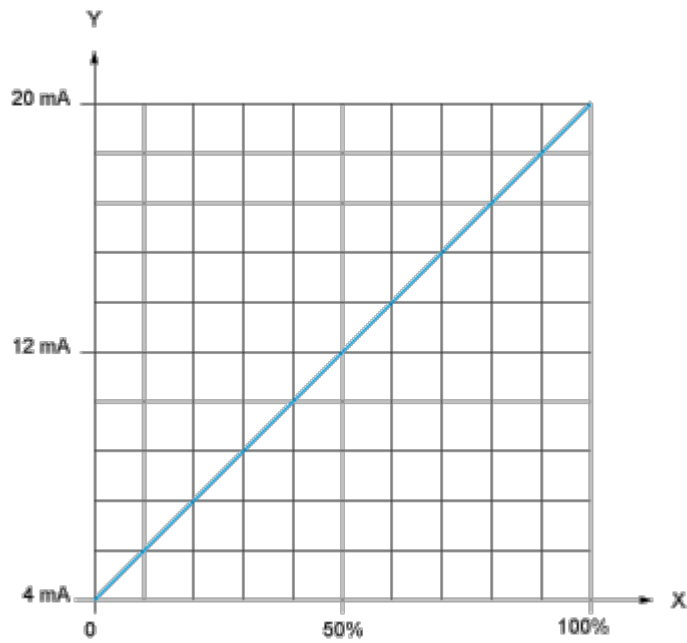


(1) $I_{in} = 4-20\text{ mA}$

Performance Curves

Analog Output Description

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

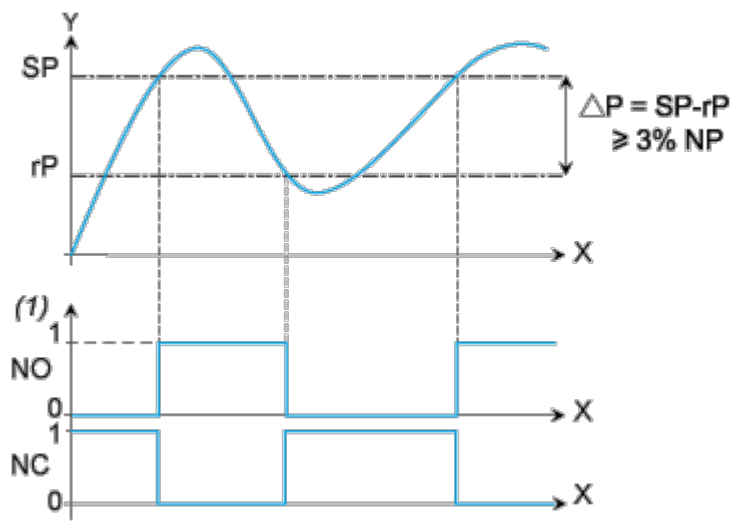


X : Pressure

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)