

# ZMLPA2P0SH

Electronic pressure sensors, Pressure sensors XM, Display & switch ZMLP, 24 VDC, 2 PNP, hysteresis, M12



## 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	Discrete
Discrete output type	Solid state PNP, 2 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
Minimum differential travel	10 % 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 discrete output
Display type	4 digits 7 segments
Local signalling	2 LEDs (yellow) for light ON when switch is actuated
Response time	300 ms
Maximum delay first up	100 ms
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 61000-6-2 IEC 61000-6-4 UL 508
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

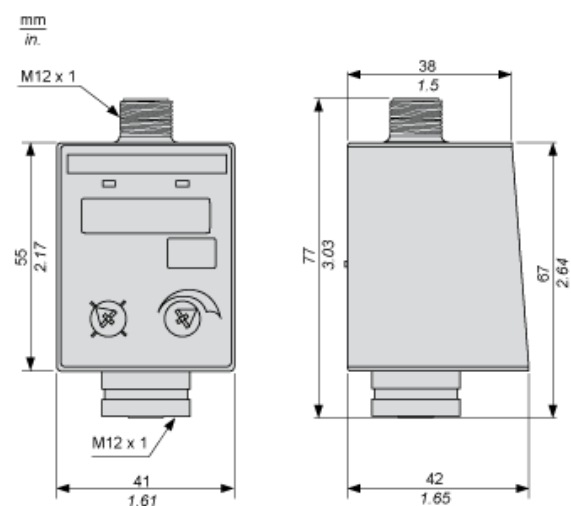
## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.700 cm
Package 1 Width	4.300 cm
Package 1 Length	4.700 cm
Package 1 Weight	105.000 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	2.709 kg

## Offer Sustainability

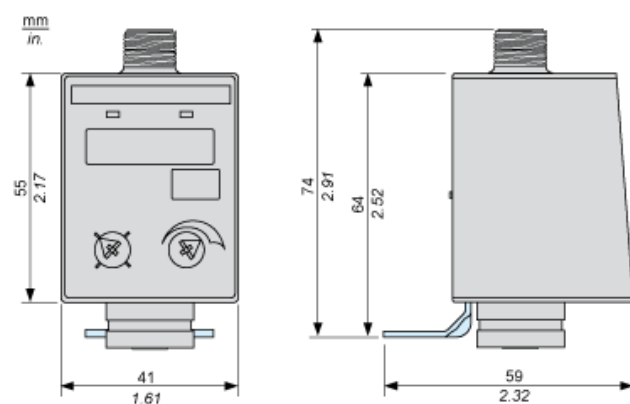
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

## Dimensions



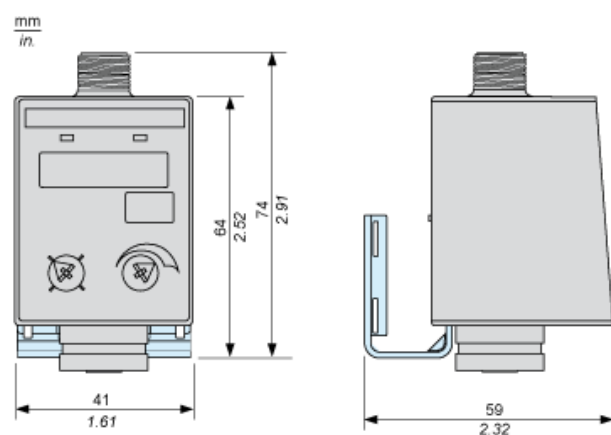
## Dimensions

### Switch with Metal Bracket for Fixing Horizontally



## Dimensions

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

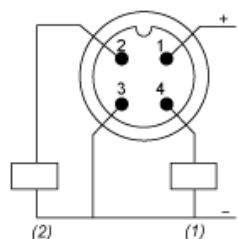


---

## Connections and Schema

---

### Output M12 Male Connector Wiring



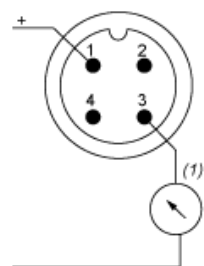
- (1) Out 1  
(2) Out 2

---

## Connections and Schema

---

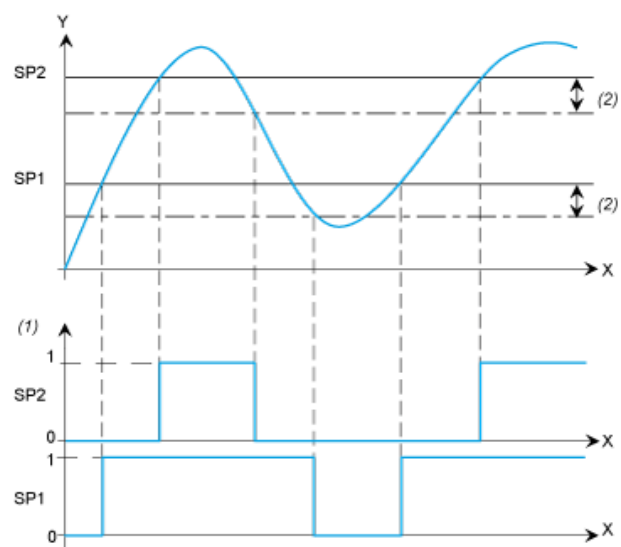
### Input M12 Female Connector Wiring



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

## Two Switching Outputs Description. Hysteresis Mode

The hysteresis switching mode is typically used for the pumping applications



X : Time

Y : Pressure

(1) Output

(2) Fixed hysteresis = 10% of the selected display range

SP1/ Set points (adjustable from 11% to 98% nominal pressure)

SP2 :