



## 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<br>Male connector M12, 4 pins                                    |
| Type of output signal                                  | Discrete  |
| Discrete output type                                   | Solid state NPN, 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  | Reverse polarity<br>Short-circuit protection<br>Overload protection<br>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                | EAC<br>CULus  |
| Standards                             | EN/IEC 61000-6-2<br>UL 508<br>EN/IEC 61000-6-4  |
| Ambient air temperature for operation | -25...70 °C   |
| Ambient air temperature for storage   | -30...80 °C   |
| IP degree of protection               | IP67 conforming to EN/IEC 60529<br>IP65 conforming to EN/IEC 60529<br>IP69K conforming to DIN 40050   |
| Vibration resistance                  | 5 gn (f= 10...2000 Hz) conforming to EN/IEC 60068-2-6   |
| Shock resistance                      | 25 gn conforming to EN/IEC 60068-2-27   |
| Electromagnetic compatibility         | Immunity to conducted RF disturbances: 10 V 0.15...80 MHz conforming to EN/IEC 61000-4-6<br>Surge immunity test: 1 kV conforming to EN/IEC 61000-4-5<br>Electrical fast transient/burst immunity test: 2 kV conforming to EN/IEC 61000-4-4<br>Susceptibility to electromagnetic fields: 10 V/m 80...2000 MHz conforming to EN/IEC 61000-4-3<br>Electrostatic discharge immunity test: 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2 |

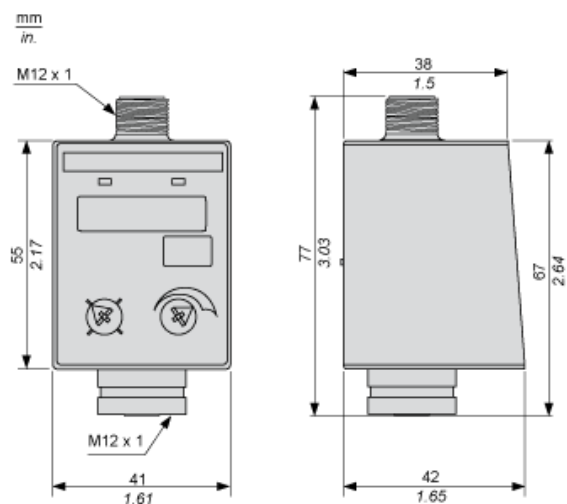
## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 105 g    |
| Package 1 Height             | 4.3 cm   |
| Package 1 width              | 4.7 cm   |
| Package 1 Length             | 8.7 cm   |
| Unit Type of Package 2       | S01      |
| Number of Units in Package 2 | 24       |
| Package 2 Weight             | 2.708 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 15 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

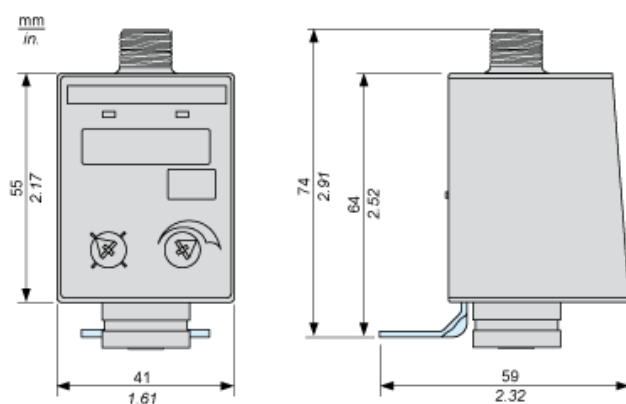
|                            |  |
|----------------------------|--|
| Sustainable offer status   | Green Premium product  |
| REACH Regulation           |  <a href="#">REACH Declaration</a>  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes  |
| RoHS exemption information |  <a href="#">Yes</a>  |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a>  |
| Circularity Profile        |  <a href="#">End Of Life Information</a>  |

## Dimensions



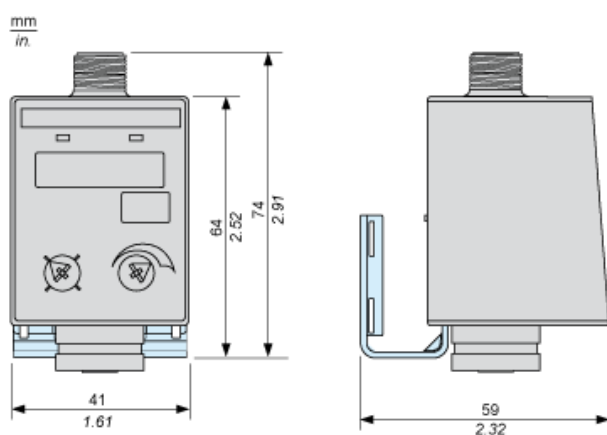
## Dimensions

### Switch with Metal Bracket for Fixing Horizontally



## Dimensions

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

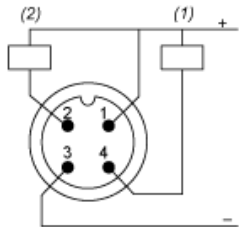


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## Connections and Schema

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### Output M12 Male Connector Wiring



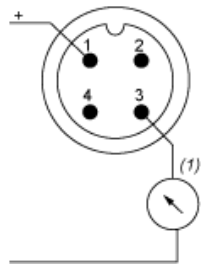
- (1) Out 1  
(2) Out 2

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## Connections and Schema

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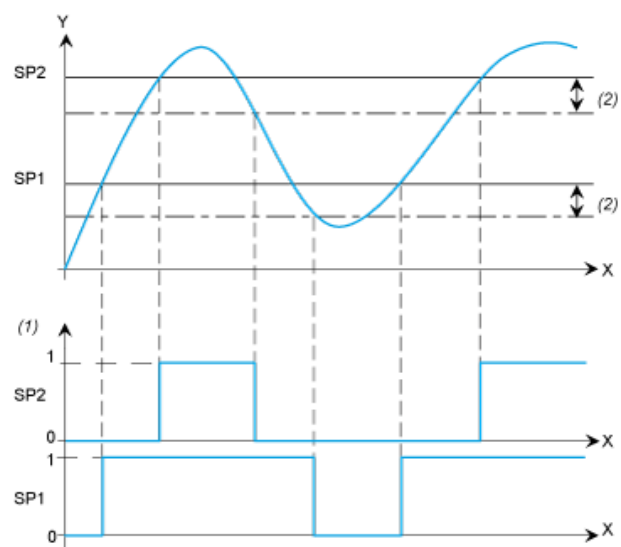
### Input M12 Female Connector Wiring



- (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 :