Product datasheet Characteristics

XMLR160M2P05



Main

| mann | |
|--|---|
| Range of product | OsiSense XM |
| Product or component type | Electronic pressure sensors |
| Pressure sensor type | Pressure transmitter |
| Pressure switch type of operatio | n Pressure switch with 2 switching outputs |
| Device short name | XMLR |
| Pressure sensor size | 2320.6 psi (160 bar) 2320 psi |
| Maximum permissible accidenta pressure | al 6961.81 psi (480 bar) 6960 psi 48 MPa |
| Destruction pressure | 13923.62 psi (960 bar) 13920 psi 96 MPa |
| Controlled fluid | Fresh water (32176 °F (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 | 4 pins M12 male connector |
| Type of output signal | Discrete |
| Discrete output type | Solid state PNP, 2 NO/NC programmable |
| Maximum switching current | 250 mA |
| Contacts type and composition | 2 NO/NC programmable |
| Scale type | Fixed differential |
| Voltage drop | <= 2 V |
| Adjustable range of switching point on rising pressure | 185.652320.6 psi (12.8160 bar) 1862320 psi 1.2816 MPa |
| Adjustable range of switching point on falling pressure | 116.032248.09 psi (8155 bar) 1162250 psi 0.815.5 MPa |
| Minimum differential travel | 69.62 psi (4.8 bar) 69.6 psi 0.48 MPa |
| Materials in contact with fluid | 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 | Overload protection Overvoltage protection Reverse polarity Short-circuit protection |
| Response time on output | <= 5 ms discrete output |
| Time delay range | 050 s in steps of 1 second |
| Display type | 4 digits 7 segments |
| Local signalling | 2 LEDs yellow light ON when switch is actuated |
| Display response time type | Fast 50 ms Normal 200 ms |



| | Slow 600 ms |
|--|---|
| Delay first up | <= 300 ms |
| Accuracy | <= 1 % of the measuring range |
| Measurement accuracy | <= 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 | >= 1000000 cycles |
| Depth | 1.65 in (42 mm) |
| Height | 3.46 in (88 mm) |
| Width | 1.61 in (41 mm) |
| Product weight | 0.41 lb(US) (0.186 kg) |
| [Uimp] rated impulse withstand voltage | 0.5 kV DC |
| Electromagnetic compatibility | Electrostatic discharge immunity test - test level 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2 Susceptibility to electromagnetic fields - test level 10 V/m (802000 MHz) conforming to EN/IEC 61000-4-3 Electrical fast transient/burst immunity test - test level 2 kV conforming to EN/IEC 61000-4-4 Surge immunity test - test level 1 kV conforming to EN/IEC 61000-4-5 Immunity to conducted RF disturbances - test level 10 V (0.1580 MHz) conforming to EN/IEC 61000-4-6 |

Environment

| marking | CE |
|---------------------------------------|--|
| product certifications | CULus EAC |
| standards | UL 61010-1 EN/IEC 61326-2-3 |
| ambient air temperature for operation | -4176 °F (-2080 °C) |
| ambient air temperature for storage | -40176 °F (-4080 °C) |
| IP degree of protection | IP65 conforming to EN/IEC 60529 IP67 conforming to EN/IEC 60529 |
| vibration resistance | 20 gn (f = 102000 Hz) conforming to EN/IEC 60068-2-6 |
| shock resistance | 50 gn conforming to EN/IEC 60068-2-27 |

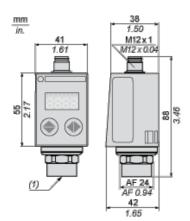
Offer Sustainability

| Not Green Premium product | Not Green Premium product |
|--|---|
| Compliant - since 1351 - Schneider Electric declaration of conformity | Compliant - since 1351 - Schneider Electric declaration of conformity |
| Reference not containing SVHC above the threshold | Reference not containing SVHC above the threshold |
| WARNING: This product can expose you to chemicals including: | WARNING: This product can expose you to chemicals including: |
| Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and | 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. | eDi-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 more information go to www.p65warnings.ca.gov

Dimensions

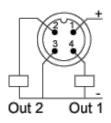




(1) Fluid entry: G 1/4 A female

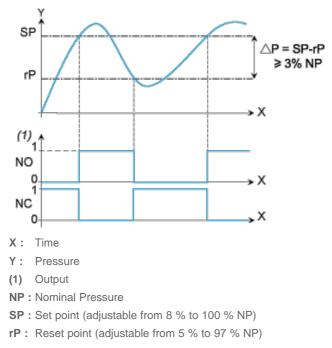
Connections and Schema

Connector Wiring



Switching Output Description. Hysteresis Mode

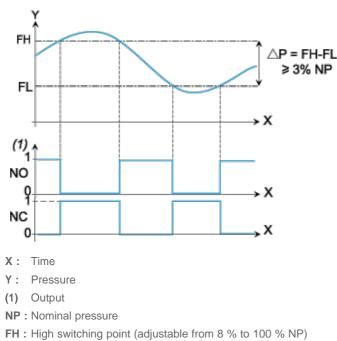
The hysteresis switching mode is typically used for the "pumping and/or emptying applications".



Switching Output Description. Window Mode

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



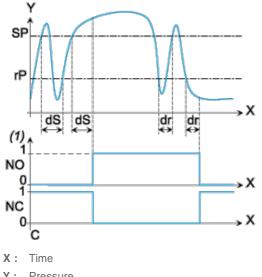


FL: Low switching point (adjustable from 5 % to 97 % NP)

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.



- Y: Pressure
- (1) Output
- SP : Set point
- rP: Reset point
- $\ensuremath{\mathsf{dS}}$: Time delay on the set point
- dr : Time delay on the reset point

