



## Main

|                                         |                                                                                                                                |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Range of product                        | OsiSense XM                                                                                                                    |
| Product or component type               | Electronic pressure sensors                                                                                                    |
| Pressure sensor type                    | Pressure transmitter                                                                                                           |
| Pressure switch type of operation       | Pressure switch with 2 switching outputs                                                                                       |
| Device short name                       | XMLR                                                                                                                           |
| Pressure sensor size                    | 145.04 psi (10 bar)<br>145 psi                                                                                                 |
| Maximum permissible accidental pressure | 580.15 psi (40 bar)<br>580 psi<br>4 MPa                                                                                        |
| Destruction pressure                    | 580.15 psi (40 bar)<br>580 psi<br>4 MPa                                                                                        |
| Controlled fluid                        | Fresh water (32...176 °F (0...80 °C))<br>Air (-20...80 °C)<br>Hydraulic oil (-20...80 °C)<br>Refrigeration fluid (-20...80 °C) |
| Fluid connection type                   | G 1/4 (female) conforming to DIN 3852-Y                                                                                        |
| [Us] rated supply voltage               | 24 V DC SELV, voltage limits: 17...33 V                                                                                        |

## Complementary

|                                                         |                                                                                               |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Current consumption                                     | <= 50 mA                                                                                      |
| Electrical connection                                   | 4 pins M12 male connector                                                                     |
| Type of output signal                                   | Discrete                                                                                      |
| Discrete output type                                    | Solid state NPN, 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  | 11.6...145.04 psi (0.8...10 bar)<br>11.6...145 psi<br>0.08...1 MPa                            |
| Adjustable range of switching point on falling pressure | 7.25...140.69 psi (0.5...9.7 bar)<br>7.25...141 psi<br>0.05...0.97 MPa                        |
| Minimum differential travel                             | 4.35 psi (0.3 bar)<br>4.35 psi<br>30 kPa                                                      |
| Materials in contact with fluid                         | Ceramic<br>Fluorocarbon FKM (Viton)<br>316L stainless steel                                   |
| Front material                                          | Polyester                                                                                     |
| Housing material                                        | Polyacrylamide<br>316L stainless steel                                                        |
| Operating position                                      | Any position, but disposals can falsified the measurement in case of upside down mounting     |
| Protection type                                         | Overload protection<br>Overvoltage protection<br>Reverse polarity<br>Short-circuit protection |
| Response time on output                                 | <= 5 ms discrete output                                                                       |
| Time delay range                                        | 0...50 s in steps of 1 second                                                                 |
| Display type                                            | 4 digits 7 segments                                                                           |
| Local signalling                                        | 2 LEDs yellow light ON when switch is actuated                                                |

The information provided in this documentation contains general descriptions and/or technical characteristics of the products of the Schneider Electric group. It 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. It is the duty of any user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display response time type             | Fast 50 ms<br>Normal 200 ms<br>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                  | >= 10000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Depth                                  | 1.65 in (42 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Height                                 | 3.66 in (93 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Width                                  | 1.61 in (41 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Product weight                         | 0.42 lb(US) (0.19 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<br>Susceptibility to electromagnetic fields - test level 10 V/m (80...2000 MHz) conforming to EN/IEC 61000-4-3<br>Electrical fast transient/burst immunity test - test level 2 kV conforming to EN/IEC 61000-4-4<br>Surge immunity test - test level 1 kV conforming to EN/IEC 61000-4-5<br>Immunity to conducted RF disturbances - test level 10 V (0.15...80 MHz) conforming to EN/IEC 61000-4-6 |

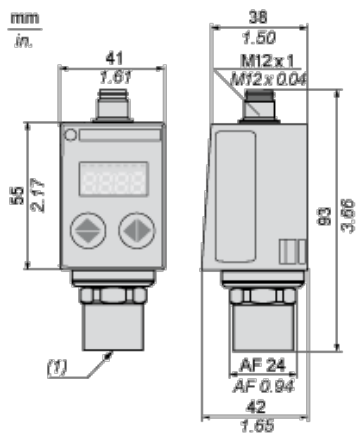
## Environment

|                                       |                                                                    |
|---------------------------------------|--------------------------------------------------------------------|
| marking                               | CE                                                                 |
| product certifications                | CULus<br>EAC                                                       |
| standards                             | UL 61010-1<br>EN/IEC 61326-2-3                                     |
| ambient air temperature for operation | -4...176 °F (-20...80 °C)                                          |
| ambient air temperature for storage   | -40...176 °F (-40...80 °C)                                         |
| IP degree of protection               | IP65 conforming to EN/IEC 60529<br>IP67 conforming to EN/IEC 60529 |
| vibration resistance                  | 20 gn (f = 10...2000 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. | 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 more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>                              |

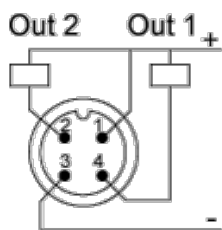
## Dimensions



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

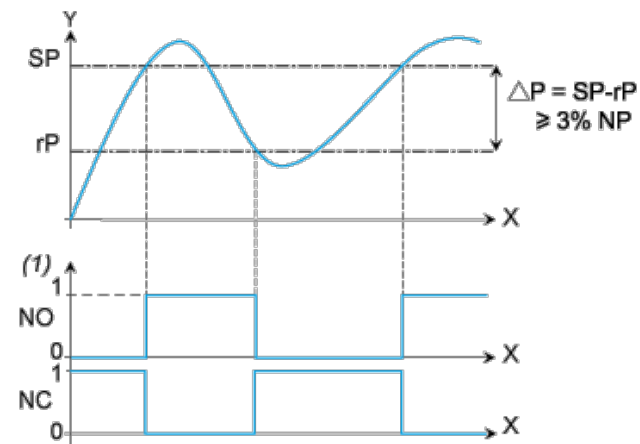
## Connections and Schema

### Connector Wiring



## Switching Output Description. Hysteresis Mode

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



X : Time

Y : Pressure

(1) Output

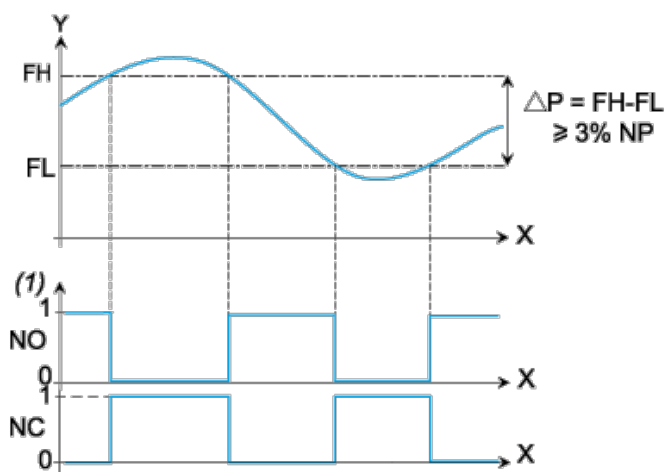
NP : Nominal Pressure

SP : Set point (adjustable from 8 % to 100 % NP)

rP : Reset point (adjustable from 5 % to 97 % NP)

## Switching Output Description. Window Mode

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



X : Time

Y : Pressure

(1) Output

NP : Nominal pressure

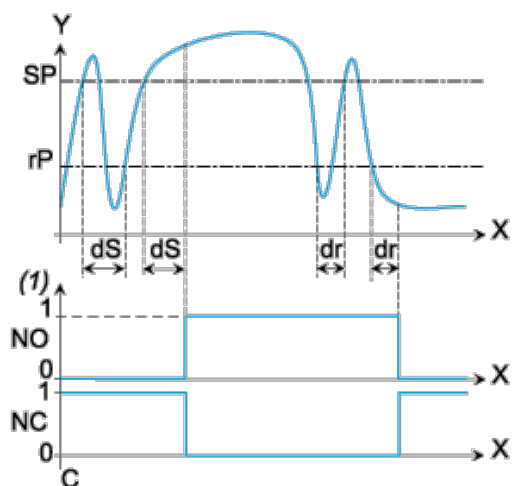
FH : High switching point (adjustable from 8 % to 100 % NP)

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.



X : Time

Y : Pressure

(1) Output

SP : Set point

rP : Reset point

dS : Time delay on the set point

dr : Time delay on the reset point

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Schneider Electric:](#)

[XMLR010G2N05](#)