
Sensors for pressure control

OsiSense XMLR

Catalogue



Simply easy!™

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Electronic pressure sensors

OsiSense XM

Pressure sensors with 4-digit display, type XMLR

OsiSense XMLR

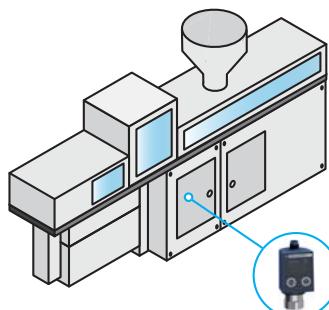
Pressure sensors are used to control and measure pressure or vacuum levels in hydraulic or pneumatic systems.

They transform the pressure into an electrical signal. They then produce an analogue output which is proportional to the measured pressure and/or one or two switching outputs for which the switching point can be adjusted.

The high precision and performance of OsiSense XMLR pressure sensors makes them suitable for numerous industrial applications requiring pressure/vacuum display, control or regulation.

Easy to mount

Minimize installation time and effort. Mounting is easy and flexible with the compact-sized, rotating body and reversed display function.



With its compact size,
the OsiSense XMLR
pressure sensor
is easily integrated in the
machine.

Compact size

> With a height of just 88 to 100 mm depending on the pressure range and the fluid entry type, OsiSense XMLR is one of the most compact pressure switches on the market.



Rotating body

> The body of the OsiSense XMLR pressure sensor can be rotated 300°, thus enabling the front face of the product to be orientated as required following connection to the pressure inlet pipe.

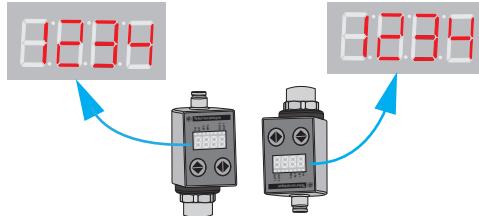


The easy switch for machine pressure control

Easy to mount (continued)

Display inversion function

> The display can be inverted vertically to adapt to the sensor's installation position.



Easy to set up

Menu naming and structure based on VDMA* standards

> The ergonomic design of OsiSense XMLR sets a new standard for ease of configuration.

Navigation using just two pushbuttons

> Two simple pushbuttons are all that is needed to navigate through an intuitive menu structured according to VDMA standards.



Menu structure based on VDMA standards

- 1 Pushbutton to display a value or parameter or to save a selected value or parameter and return to the menu.
- 2 Pushbutton to scroll from one menu to another or to increase a value or change a parameter

Easy to maintain

At each device start up, all segments of the display light up briefly to confirm that it is operating correctly.

The device can be tested using a diagnostic function which checks the whole electronic signal processing chain. This function is accessible via the "Dia" menu. It can be activated directly by the PLC by remote control via the test input (on products which only have one analogue output).

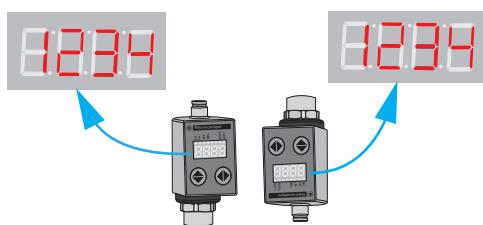
OsiSense XMLR pressure sensors also include a recording of the high and low pressure values measured since the last reset. These values can be displayed via the Hi and Lo menus.

* VDMA: Verband Deutscher Maschinen und Anlagenbau e. V.

Electronic pressure sensors

OsiSense XM

Pressure sensors with 4-digit display, type XMLR
Compact plastic body, stainless steel 316L fluid entry
With analogue and solid-state outputs



Reversed display function

Presentation

Electronic pressure sensors type XMLR are used for pressure control of hydraulic oils, fresh water, air and refrigerant fluids, between -1 and 600 bar.

Depending on the model, XMLR sensors are available with different configurations in order to meet the highest number of requirements:

- one analogue output, 4-20 mA or 0-10 V, proportional to the measuring range,
- one analogue output and one switching output, PNP or NPN type,
- two switching outputs,
- one analogue output and two switching outputs.

Compact and robust:

The stainless steel 316L fluid entry and glass-fiber-reinforced polyarylamide body provide the XMLR pressure sensors with excellent mechanical resistance, improved corrosion resistance and an IP65/IP67 degree of protection. These products are for a nominal supply voltage of 24 V ... and have a 17 to 33 V ... operating range.

They are particularly suitable for:

- Moulding and thermoforming presses
- Injection machines
- Pneumatic systems and assembly machinery
- Hydraulic systems of lifting and handling equipment
- Pumping and fresh water treatment

Compact

88 mm to 100 mm overall, depending on model.

Simplicity of setting-up

The body of the OsiSense XMLR pressure sensor can be turned through 300°, thus enabling the front face of the product to be orientated as required following connection to the pressure inlet pipe.

In addition, the reversed display function simplifies reading in the event of upside down mounting (fluid entry from above).

Description

- 1 M12 male connector, 4 or 5-pin depending on model.
- 2 4-digit, 7 segment display and LED indicator for pressure unit and output state.
- 3 Navigation keys for setting and configuring the menus (conforming to VDMA 24574).
- 4 Fluid entry: G 1/4 female, 1/4"-18NPT female or 7/16-20UNF female, depending on model.

Functions

Configurable functions

For the display:

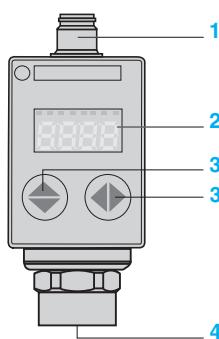
- Pressure unit of measurement (bar, psi, kPa or MPa).
- Display refresh time: fast (50 ms), normal (200 ms), slow (600 ms).
- 180° reversed display function.

For the analogue output (4...20 mA or 0...10 V):

- Offset compensation in the range of ±5% of the nominal pressure.
- Adjustment of analogue end point between 75 and 125% of the nominal pressure.

For each solid-state output:

- NO or NC contact
- Switching mode of outputs: Hysteresis (pumping) or Window (control).
- Time delay both on trip and on reset (adjustable from 0 to 50 s, in steps of 1 s).



Fast diagnostic functions

- Illumination of all the segments of the display on each power-up, enabling checking of their operation.
- Diagnostic function for checking correct operation of the sensor.
- Saving of min. and max. pressures measured by the sensor and their subsequent display.

Electronic pressure sensors

OsiSense XM

Pressure sensors with 4-digit display, type XMLR
Compact plastic body, stainless steel 316L fluid entry
With analogue and solid-state outputs



XMLR***G***5



XMLR***G***6

-1 to 0 bar (-14.5 to 0 psi)

Maximum permissible accidental pressure: 3 bar, destruction pressure: 3 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLRM01G0T25	0.190
0...10 V ---	—	XMLRM01G0T75	0.190
4...20 mA	1 x PNP	XMLRM01G1P25	0.190
4...20 mA	1 x NPN	XMLRM01G1N25	0.190
0...10 V ---	1 x PNP	XMLRM01G1P75	0.190
0...10 V ---	1 x NPN	XMLRM01G1N75	0.190
—	2 x PNP	XMLRM01G2P05	0.190
—	2 x NPN	XMLRM01G2N05	0.190
4...20 mA	2 x PNP	XMLRM01G2P25	0.190
4...20 mA	2 x NPN	XMLRM01G2N25	0.190

1/4"-18NPT female fluid connection

4...20 mA	—	XMLRM01G0T26	0.212
4...20 mA	1 x PNP	XMLRM01G1P26	0.212
4...20 mA	1 x NPN	XMLRM01G1N26	0.212
—	2 x PNP	XMLRM01G2P06	0.212
—	2 x NPN	XMLRM01G2N06	0.212
4...20 mA	2 x PNP	XMLRM01G2P26	0.212
4...20 mA	2 x NPN	XMLRM01G2N26	0.212

0 to 1 bar (0 to 14.5 psi)

Maximum permissible accidental pressure: 7 bar, destruction pressure: 7 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR001G0T25	0.190
0...10 V ---	—	XMLR001G0T75	0.190
4...20 mA	1 x PNP	XMLR001G1P25	0.190
4...20 mA	1 x NPN	XMLR001G1N25	0.190
0...10 V ---	1 x PNP	XMLR001G1P75	0.190
0...10 V ---	1 x NPN	XMLR001G1N75	0.190
—	2 x PNP	XMLR001G2P05	0.190
—	2 x NPN	XMLR001G2N05	0.190

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR001G0T26	0.212
0...10 V ---	—	XMLR001G0T76	0.212
4...20 mA	1 x PNP	XMLR001G1P26	0.212
4...20 mA	1 x NPN	XMLR001G1N26	0.212
—	2 x PNP	XMLR001G2P06	0.212
—	2 x NPN	XMLR001G2N06	0.212

0 to 2.5 bar (0 to 36.2 psi)

Maximum permissible accidental pressure: 12 bar, destruction pressure: 12 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR2D5G0T25	0.190
4...20 mA	—	XMLR2D5G0T75	0.190
4...20 mA	1 x PNP	XMLR2D5G1P25	0.190
4...20 mA	1 x NPN	XMLR2D5G1N25	0.190
0...10 V ---	1 x PNP	XMLR2D5G1P75	0.190
0...10 V ---	1 x NPN	XMLR2D5G1N75	0.190
—	2 x PNP	XMLR2D5G2P05	0.190
—	2 x NPN	XMLR2D5G2N05	0.190

1/4"-18NPT female fluid connection

4...20 mA	1 x PNP	XMLR2D5G1P26	0.212
4...20 mA	1 x NPN	XMLR2D5G1N26	0.212
—	2 x PNP	XMLR2D5G2P06	0.212
—	2 x NPN	XMLR2D5G2N06	0.212

Electronic pressure sensors

OsiSense XM

Pressure sensors with 4-digit display, type XMLR
Compact plastic body, stainless steel 316L fluid entry
With analogue and solid-state outputs



XMLR•••G•••5

XMLR•••G•••6
XMLR•••G•••9

0 to 10 bar (0 to 145 psi)

Maximum permissible accidental pressure: 40 bar, destruction pressure: 40 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR010G0T25	0.190
0...10 V	—	XMLR010G0T75	0.190
4...20 mA	1 x PNP	XMLR010G1P25	0.190
4...20 mA	1 x NPN	XMLR010G1N25	0.190
0...10 V	1 x PNP	XMLR010G1P75	0.190
0...10 V	1 x NPN	XMLR010G1N75	0.190
—	2 x PNP	XMLR010G2P05	0.190
—	2 x NPN	XMLR010G2N05	0.190
4...20 mA	2 x PNP	XMLR010G2P25	0.190
4...20 mA	2 x NPN	XMLR010G2N25	0.190

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR010G0T26	0.212
0...10 V	—	XMLR010G0T76	0.212
4...20 mA	1 x PNP	XMLR010G1P26	0.212
4...20 mA	1 x NPN	XMLR010G1N26	0.212
0...10 V	1 x PNP	XMLR010G1P76	0.212
0...10 V	1 x NPN	XMLR010G1N76	0.212
—	2 x PNP	XMLR010G2P06	0.212
—	2 x NPN	XMLR010G2N06	0.212
4...20 mA	2 x PNP	XMLR010G2P26	0.212
4...20 mA	2 x NPN	XMLR010G2N26	0.212

7/16-20UNF-2B female fluid connection

—	2 x PNP	XMLR010G2P09	0.210
—	2 x NPN	XMLR010G2N09	0.210

0 to 16 bar (0 to 232 psi)

Maximum permissible accidental pressure: 62 bar, destruction pressure: 62 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR016G0T25	0.190
0...10 V	—	XMLR016G0T75	0.190
4...20 mA	1 x PNP	XMLR016G1P25	0.190
4...20 mA	1 x NPN	XMLR016G1N25	0.190
0...10 V	1 x PNP	XMLR016G1P75	0.190
—	2 x PNP	XMLR016G2P05	0.190

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR016G0T26	0.212
4...20 mA	1 x PNP	XMLR016G1P26	0.212
4...20 mA	1 x NPN	XMLR016G1N26	0.212
—	2 x PNP	XMLR016G2P06	0.212
—	2 x NPN	XMLR016G2N06	0.212

0 to 25 bar (0 to 362 psi)

Maximum permissible accidental pressure: 100 bar, destruction pressure: 100 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR025G0T25	0.190
4...20 mA	—	XMLR025G0T75	0.190
4...20 mA	1 x PNP	XMLR025G1P25	0.190
4...20 mA	1 x NPN	XMLR025G1N25	0.190
0...10 V	1 x PNP	XMLR025G1P75	0.190
0...10 V	1 x NPN	XMLR025G1N75	0.190
—	2 x PNP	XMLR025G2P05	0.190
—	2 x NPN	XMLR025G2N05	0.190

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR025G0T26	0.212
4...20 mA	1 x PNP	XMLR025G1P26	0.212
4...20 mA	1 x NPN	XMLR025G1N26	0.212
—	2 x PNP	XMLR025G2P06	0.212
—	2 x NPN	XMLR025G2N06	0.212

References (continued)

Electronic pressure sensors

OsiSense XM

Pressure sensors with 4-digit display, type XMLR
Compact plastic body, stainless steel 316L fluid entry
With analogue and solid-state outputs



XMLR●●●G●●●5



XMLR●●●G●●●6



XMLR●●●M●●●5
XMLR●●●M●●●6



XMLR●●●M●●●9

0 to 40 bar (0 to 580 psi)

Maximum permissible accidental pressure: 150 bar, destruction pressure: 150 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR040G0T25	0.190
0...10 V ---	—	XMLR040G0T75	0.190
4...20 mA	1 x PNP	XMLR040G1P25	0.190
4...20 mA	1 x NPN	XMLR040G1N25	0.190
0...10 V ---	1 x PNP	XMLR040G1P75	0.190
0...10 V ---	1 x NPN	XMLR040G1N75	0.190
—	2 x PNP	XMLR040G2P05	0.190
—	2 x NPN	XMLR040G2N05	0.190
4...20 mA	2 x PNP	XMLR040G2P25	0.190
4...20 mA	2 x NPN	XMLR040G2N25	0.190

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR040G0T26	0.212
4...20 mA	1 x PNP	XMLR040G1P26	0.212
4...20 mA	1 x NPN	XMLR040G1N26	0.212
—	2 x PNP	XMLR040G2P06	0.212
—	2 x NPN	XMLR040G2N06	0.212

0 to 100 bar (0 to 1450 psi)

Maximum permissible accidental pressure: 300 bar, destruction pressure: 600 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR100M0T25	0.186
0...10 V ---	—	XMLR100M0T75	0.186
4...20 mA	1 x PNP	XMLR100M1P25	0.186
4...20 mA	1 x NPN	XMLR100M1N25	0.186
0...10 V ---	1 x PNP	XMLR100M1P75	0.186
0...10 V ---	1 x NPN	XMLR100M1N75	0.186
—	2 x PNP	XMLR100M2P05	0.186
—	2 x NPN	XMLR100M2N05	0.186

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR100M0T26	0.186
4...20 mA	1 x PNP	XMLR100M1P26	0.186
4...20 mA	1 x NPN	XMLR100M1N26	0.186
—	2 x PNP	XMLR100M2P06	0.186
—	2 x NPN	XMLR100M2N06	0.186

0 to 160 bar (0 to 2320 psi)

Maximum permissible accidental pressure: 480 bar, destruction pressure: 960 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR160M0T25	0.186
4...20 mA	—	XMLR160M0T75	0.186
4...20 mA	1 x PNP	XMLR160M1P25	0.186
4...20 mA	1 x NPN	XMLR160M1N25	0.186
0...10 V ---	1 x PNP	XMLR160M1P75	0.186
0...10 V ---	1 x NPN	XMLR160M1N75	0.186
—	2 x PNP	XMLR160M2P05	0.186
—	2 x NPN	XMLR160M2N05	0.186

1/4"-18NPT female fluid connection

—	2 x PNP	XMLR160M2P06	0.186
—	2 x NPN	XMLR160M2N06	0.186

7/16-20UNF-2B female fluid connection

—	2 x PNP	XMLR160M2P09	0.212
—	2 x NPN	XMLR160M2N09	0.212

Electronic pressure sensors

OsiSense XM

Pressure sensors with 4-digit display, type XMLR
Compact plastic body, stainless steel 316L fluid entry
With analogue and solid-state outputs



XMLR•••M•••5
XMLR•••M•••6



XMLR•••M•••9

0 to 250 bar (0 to 3625 psi)

Maximum permissible accidental pressure: 750 bar, destruction pressure: 1500 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR250M0T25	0.186
0...10 V ---	—	XMLR250M0T75	0.186
4...20 mA	1 x PNP	XMLR250M1P25	0.186
4...20 mA	1 x NPN	XMLR250M1N25	0.186
0...10 V ---	1 x PNP	XMLR250M1P75	0.186
0...10 V ---	1 x NPN	XMLR250M1N75	0.186
—	2 x PNP	XMLR250M2P05	0.186
—	2 x NPN	XMLR250M2N05	0.186
4...20 mA	2 x PNP	XMLR250M2P25	0.186
4...20 mA	2 x NPN	XMLR250M2N25	0.186

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR250M0T26	0.186
4...20 mA	1 x PNP	XMLR250M1P26	0.186
4...20 mA	1 x NPN	XMLR250M1N26	0.186
0...10 V ---	1 x PNP	XMLR250M1P76	0.186
—	2 x PNP	XMLR250M2P06	0.186
—	2 x NPN	XMLR250M2N06	0.186

7/16-20UNF-2B female fluid connection

—	2 x PNP	XMLR250M2P09	0.212
—	2 x NPN	XMLR250M2N09	0.212

0 to 400 bar (0 to 5800 psi)

Maximum permissible accidental pressure: 1200 bar, destruction pressure: 2400 bar

G 1/4 female DIN 3852-Y fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR400M0T25	0.186
0...10 V ---	—	XMLR400M0T75	0.186
4...20 mA	1 x PNP	XMLR400M1P25	0.186
4...20 mA	1 x NPN	XMLR400M1N25	0.186
0...10 V ---	1 x PNP	XMLR400M1P75	0.186
0...10 V	1 x NPN	XMLR400M1N75	0.186
—	2 x PNP	XMLR400M2P05	0.186
—	2 x NPN	XMLR400M2N05	0.186
4...20 mA	2 x PNP	XMLR400M2P25	0.186
4...20 mA	2 x NPN	XMLR400M2N25	0.186

1/4"-18NPT female fluid connection

4...20 mA	—	XMLR400M0T26	0.186
4...20 mA	1 x PNP	XMLR400M1P26	0.186
4...20 mA	1 x NPN	XMLR400M1N26	0.186
—	2 x PNP	XMLR400M2P06	0.186
—	2 x NPN	XMLR400M2N06	0.186

0 to 600 bar (0 to 8700 psi)

Maximum permissible accidental pressure: 1500 bar, destruction pressure: 2500 bar

G 1/4 female fluid connection

Analogue output type	Solid-state output type	Reference	Weight kg
4...20 mA	—	XMLR600M0T25	0.186
0...10 V	—	XMLR600M0T75	0.186
4...20 mA	1 x PNP	XMLR600M1P25	0.186
0...10 V	1 x PNP	XMLR600M1P75	0.186
—	2 x PNP	XMLR600M2P05	0.186

Electronic pressure sensors

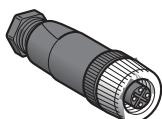
OsiSense XM

Pressure sensors with 4-digit display, type XMLR
Accessories

XMLZL009

Accessories

Description	For use with	Reference	Weight kg
Cooler with G 1/4 A (male) fluid connections Usage temperature: 150 °C for the fluid, 50 °C for the ambient air	XMLR*****5	XMLZL009	0.370



XZCC12FDM•0B

Connectors

Description	For use with	Type	Reference	Weight kg
M12 female connector, 4-pin Metal clamping ring	XMLR****0T●● XMLR****1P●● XMLR****1N●● XMLR****2P0● XMLR****2N0●	Straight	XZCC12FDM40B	0.020

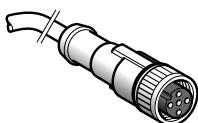
M12 female connector, 5-pin Metal clamping ring	XMLR****2P2● XMLR****2N2●	Straight	XZCC12FDM50B	0.020
		Elbowed	XZCC12FCM50B	0.020



XZCC12FCM•0B

Pre-wired connectors and jumper cables (PUR cable)

Description	For use with	Type	Length of cable	Reference	Weight
Pre-wired M12 female connectors, 4-pin Metal clamping ring	XMLR****0T●● XMLR****1●● XMLR****2P0● XMLR****2N0●	Straight	2	XZCP1141L2	0.090
			5	XZCP1141L5	0.190
			10	XZCP1141L10	0.370
		Elbowed	2	XZCP1241L2	0.090
			5	XZCP1241L5	0.190
			10	XZCP1241L10	0.370

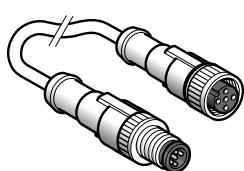


XZCP1141L●

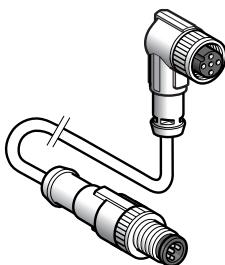


XZCP1241L●

M12-M12 4-pin jumper cables	XMLR****0T●● XMLR****1●● XMLR****2P0● XMLR****2N0●	Straight female connector	1	XZCR1511041C1	0.100
			2	XZCR1511041C2	0.100
		Elbowed female connector	1	XZCR1512041C1	0.100
			2	XZCR1512041C2	0.100



XZCR15110●●●●



XZCR15120●●●●

M12-M12 5-pin jumper cables	XMLR****2P2● XMLR****2N2●	Straight female connector	1	XZCR1511064D1	0.100
			2	XZCR1511064D2	0.100
		Elbowed female connector	1	XZCR1512064D1	0.100
			2	XZCR1512064D2	0.100

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