Sensores de presión

Electronic pressure switches XMLF

Ajuste de rango (bar) (1) limite bajo (PB) : vacio limite alto (PH): presión		-0.08…-1	0.08...1	0.2…2.5	0.8…10	3.2...40
Ambient air temperature (°C)		- 25…+ 80				
Degree of protection (conforming to IEC 60529)		IP67				
Voltage limits (V)		24 ⎓ (⎓ 17…33)				
Dimensions (mm) H x W x D		113 x 46 x 58				
Fluid connection		1/4" BSP female (2)				
Electrical connection		M12 connector (4) Snap-C® compatible				
Configurable with digital display, connection by M12 connector (3)						
Universal sensors,	4...20 mA	**XMLFM01D2025**	**XMLF001D2025**	XMLF002D2025	**XMLF010D2025**	XMLF040D2025
solid-state output 200 mA	0...10 V	XMLFM01D2125	XMLF001D2125	XMLF002D2125	XMLF010D2125	XMLF040D2125
Dual stage pressure switches, solid-state output 200 mA		**XMLFM01D2035**	**XMLF001D2035**	XMLF002D2035	**XMLF010D2035**	XMLF040D2035
Analogue sensors	4...20 mA	**XMLFM01D2015**	**XMLF001D2015**	XMLF002D2015	**XMLF010D2015**	XMLF040D2015
	0...10 V	XMLFM01D2115	XMLF001D2115	XMLF002D2115	XMLF010D2115	XMLF040D2115
Permissible differential (bar) (pressure switches)	Min at low setting	0.03	0.03	0.08	0.3	1.2
	Min at high setting	0.03	0.03	0.08	0.3	1.2
	Max at high setting	0.95	0.95	2.38	9.5	38

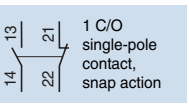
Setting range (bar) (1) upper limit (PH): pressure switches		8…100	12.8...160	20...250	32...400	48...600
Ambient air temperature (°C)		- 25…+ 80				
Degree of protection (conforming to IEC 60529)		IP67				
Voltage limits (V)		24 ⎓ (⎓ 17…33)				
Dimensions (mm) H x W x D		113 x 46 x 58				
Fluid connection		1/4" BSP female (2)				
Electrical connection		M12 connector (4) Snap-C® compatible				
Configurable with digital display, connection by M12 connector (3)						
Universal sensors,	4...20 mA	**XMLF100D2025**	XMLF160D2025	**XMLF250D2025**	**XMLF400D2025**	XMLF600D2025
solid-state output 200 mA	0...10 V	XMLF100D2125	XMLF160D2125	XMLF250D2125	XMLF400D2125	XMLF600D2125
Dual stage pressure switches, solid-state output 200 mA		**XMLF100D2035**	XMLF160D2035	**XMLF250D2035**	**XMLF400D2035**	XMLF600D2035
Analogue sensors	4...20 mA	**XMLF100D2015**	XMLF160D2015	**XMLF250D2015**	**XMLF400D2015**	XMLF600D2015
	0...10 V	XMLF100D2115	XMLF160D2115	XMLF250D2115	XMLF400D2115	XMLF600D2115
Permissible differential (bar) (pressure switches)	Min at low setting	3	4.8	7.5	12	18
	Min at high setting	3	4.8	7.5	12	18
	Max at high setting	95	152	237.5	380	570

(1) Fluids controlled: hydraulic oils, air, fresh water, sea water, corrosive fluids from - 15…+ 80°C.

(2) Available with other fluid connections: 1/4" NPT female and SAE 7/16-20 UNF.

(3) Also available in a.c. 120 V version with 2.5 A relay output and SAE 7/8-16 UN connector.

(4) For M12 connection accessories, see page 1/3.

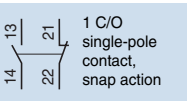


1 C/O single-pole contact, snap action

Setting range of upper limit (PH) (bar)	1…6	1.3…12	3.5…25
Ambient air temperature (°C)	- 25 to + 70		
Degree of protection (conforming to IEC 60529)	IP54		
Rated operational characteristics	∼ AC-15; B300 (Ue = 240 V, Ie = 1.5 A - Ue = 120 V, Ie = 3 A) / ⎓ DC-13; R300 (Ue = 250 V, Ie = 0.1 A)		
Dimensions (mm) H x W x D	106 x 57 x 98		126 x 57 x 98
Fluid connection	1/4" BSP female		
Electrical connection	Screw terminals, 2 tapped entries for n° 13 (DIN Pg 13.5) cable gland		

Type XMXA with internal setting screw (1)

Without setting scale, screw terminal connections				
1 C/O single-pole, snap action contact		**XMXA06L2135**	**XMXA12L2135**	XMXA25L2135
Possible differential (bar)	Min at low setting	0.8	1	3.4
subtract from PH to give PB	Min at high setting	1.2	1.7	4.5
	Max at high setting	4.2	8.4	20



1 C/O single-pole contact, snap action

Setting range of upper limit (PH) (bar)	1…6	1.3…12	3.5…25
Ambient air temperature (°C)	- 25 to + 70		
Degree of protection (conforming to IEC 60529)	IP54		
Rated operational characteristics	∼ AC-15; B300 (Ue = 240V, Ie = 1.5A - Ue = 120V, Ie = 3A) / ⎓ DC-13; R300 (Ue = 250V, Ie = 0.1A)		
Dimensions (mm) H x W x D	113 x 57 x 98		133 x 57 x 98
Fluid connection	1/4" BSP female		
Electrical connection	Screw terminals, tapped entry for n° 13 (DIN Pg 13.5) cable gland		

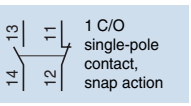
Type XMA with external setting screw (transparent cover) (1)

Without setting scale, screw terminal connections				
1 C/O single-pole, snap action contact		**XMAV06L2135**	**XMAV12L2135**	XMAV25L2135
Possible differential (bar)	Min at low setting	0.8	1	3.4
subtract from PH to give PB	Min at high setting	1.2	1.7	4.5
	Max at high setting	4.2	8.4	20

(1) Fluids controlled: fresh water, sea water, air from 0 to + 70°C.

Sensors for pressure control

Electromechanical pressure and vacuum switches XMLA and B



1 C/O single-pole contact, snap action

Size (bar)	-1	5	1	2.5
Environmental characteristics	Ambient air temperature (°C): - 25…+ 70 Degree of protection (conforming to IEC 60529): IP66			
Rated operational characteristics	∼ AC-15; B300 (Ue = 240 V, Ie = 1.5 A - Ue = 120 V, Ie = 3 A) / ⎓ DC-13; R300 (Ue = 250 V, Ie = 0.1 A)			
Fluid connection	1/4" BSP female (other connections possible, please contact us)			
Electrical connection	Screw terminals, tapped entry for n° 13 (DIN Pg 13.5) cable gland - For ISO M20 x 1.5 tapped entry,			

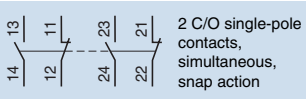
Type XMLA fixed differential (1), single threshold detection

Setting range (bar) of upper limit (PH): pressure switches		– 0.28…– 1 (5)	–	0.03…1	0.15…2.5
Dimensions (mm) H x W x D		113 x 35 x 75	113 x 35 x 75	162 x 110 x 110	158 x 55 x 77.5
With setting scale, screw terminal connections (2)					
1 C/O single-pole, snap action contact		XMLAM01V2S11	–	XMLA001R2S11	XMLA002A2S11
Without setting scale, screw terminal connections (2)					
1 C/O single-pole, snap action contact		XMLAM01V1S11	–	XMLA001R1S11	XMLA002A1S11
Natural differential (bar)	at low setting	0.24 (3)	–	0.02	0.13
subtract from PH to give PB	at high setting	0.24 (3)	–	0.04	0.13

Type XMLB adjustable differential (1), regulation between 2 thresholds

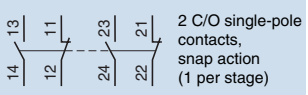
Setting range (bar) of upper limit (PH): pressure switches		– 0.14...– 1 (5)	– 0.5...5	0.05...1	0.3...2.5
With setting scale, screw terminal connections (2)					
1 C/O single-pole, snap action contact		XMLBM02V2S11	**XMLBM05A2S11**	**XMLB001R2S11**	**XMLB002A2S11**
Possible differential (bar)	Min at low setting	0.13 (4)	0.5	0.04	0.16
subtract from PH to give PB	Min at high setting	0.13 (4)	0.5	0.06	0.21
	Max at high setting	0.8 (4)	6	0.75	1.75

XMLC



2 C/O single-pole contacts, simultaneous, snap action

XMLD



2 C/O single-pole contacts, snap action (1 per stage)

XMLC and D

Type XMLC adjustable differential (1), regulation between 2 thresholds

Setting range (bar) of upper limit (PH): pressure switches		– 0.14...– 1 (5)	– 0.55...5	0.05...1	0.3...2.5
Dimensions (mm) H x W x D		113 x 46 x 85	113 x 46 x 85	175 x 110 x 110	158 x 55 x 90
With setting scale, screw terminal connections					
2 C/O single-pole simultaneous snap action contacts		XMLCM02V2S11	XMLCM05A2S11	XMLC001R2S11	XMLC002B2S11
Possible differential (bar)	Min at low setting	0.13 (4)	0.45	0.03	0.13
subtract from PH to give PB	Min at high setting	0.14 (4)	0.45	0.04	0.17
	Max at high setting	0.8 (4)	6	0.8	2

Type XMLD fixed differential (1), dual stage, for detection at each threshold

Setting range	**2nd stage switching point (PB2)**	– 0.12...– 1 (5)	–	0.12...1	0.34...2.5
(bar)	**1st stage switching point (PB1)**	– 0.10...– 0.98	–	0.04...0.92	0.2...2.36
	Spread between 2 stages (PB2 – PB1)	– 0.02...– 0.88	–	0.08...0.73	0.14...1.5
Without setting scale, screw terminal connections					
2 C/O single-pole snap action contacts (1 per stage)		XMLDM02V1S11	–	XMLD001R1S11	XMLD002B1S11
Natural differential (bar)	at low setting	0.1 (3)	–	0.03	0.14
subtract from PH 1/2 to give PB 1/2	at high setting	0.1 (3)	–	0.07	0.19

Other versions: **please consult your Schneider Electric agency.**



4	10	20	35	70	160	300	500
conforming to IEC 947-5-1 Appendix A, EN 60947-5-1							
replace the last digit of the reference by 2 (example: XMLA010A2S1**1** becomes XMLA010A2S1**2**)							
0.4…4	0.6…10	0.7…20	1.5…35	5…70	10…160	20…300	30…500
113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75	113 x 35 x 75
XMLA004A2S11	**XMLA010A2S11**	**XMLA020A2S11**	XMLA035A2S11	**XMLA070D2S11**	XMLA160D2S11	**XMLA300D2S11**	XMLA500D2S11
XMLA004A1S11	XMLA010A1S11	XMLA020A1S11	XMLA035A1S11	XML-A070D1S11	XMLA160D1S11	XMLA300D1S11	XMLA500D1S11
0.35	0.5	0.4	1.25	3	5.5	16.5	20
0.35	0.5	1	1.25	7.5	18	35	45
0.25...4	0.7...10	1.3...20	3.5...35	7...70	10...160	22...300	30...500
XMLB004A2S11	**XMLB010A2S11**	**XMLB020A2S11**	XMLB035A2S11	**XMLB070D2S11**	XMLB160D2S11	**XMLB300D2S11**	XMLB500D2S11
0.02	0.57	1	1.7	4.7	9.3	19.4	23
0.25	0.85	1.6	2.55	8.8	20.8	37	52.6
2.4	7.5	11	20	50	100	200	300

(1) Fluids controlled: hydraulic oils, air, fresh water, sea water, corrosive fluids, ≤35 bar: up to 70°C, from 70 to 500 bar: up to 160°C.
(2) For connection by DIN 43650A connector (IP65), replace the letter "S" in the reference by "C". Example: XMLB010A2**S**11 becomes XMLB010A2**C**11.
(3) For vacuum switch: natural differential to be added to PB to give PH.
(4) For vacuum switch: possible differential to be added to PB to give PH.
(5) Setting range (bar) of lower limit (PB): vacuum switch.



0.3...4	0.7...10	1.3...20	3.5...35	7...70	12...160	22...300	30...500
113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85	113 x 46 x 85
XMLC004B2S11	**XMLC010B2S11**	**XMLC020B2S11**	XMLC035B2S11	XMLC070D2S11	XMLC160D2S11	XMLC300D2S11	XMLC500D2S11
0.15	0.45	0.7	1	4.5	9	16	19
0.17	0.7	1	1.5	8.9	21	35	52
2.5	8	11	22	60	110	240	340
0.40...4	1.2...10	2.14...20	4.4...35	9.4...70	16.5...160	36...300	41...500
0.19...3.79	0.52...9.32	0.9...18.76	1.9...32.5	6.6...67.2	10.5...154	25...289	25...484
0.21...2.18	0.68...5.8	1.24...9.55	2.5...20.4	2.8...46	6...83	11...189	16...244
XMLD004B1S11	**XMLD010B1S11**	**XMLD020B1S11**	XMLD035B1S11	XMLD070D1S11	XMLD160D1S11	XMLD300D1S11	XMLD500D1S11
0.15	0.45	0.7	1.5	5	8.8	17	21
0.19	0.6	1.3	2.6	9.5	20	42	65

➜ Pressure Sensors

- **Dry, robust pressure transmitter**
- **Ceramic variable capacitance sensing element**
- **Withstanding high static and dynamic overload pressures**
- **Standard Ranges between 0.25 bar to 100 bar (Abs / Rel)**
- **Fully Factory Calibrated & Temperature Compensated**
- **Media Ring Viton Most suitable with all generic process media**
- **Wide Temperature Range (-40°C / 125 °C)**
- **4 dedicated functions blocks included in the programming software M3 Soft (Pressure gain, Flow, Level, HL Switch)**

Part numbers

Measurement range	Gauge*	Absolute**
0 → 0.25 bar	**89210001**	
0 → 1 bar	**89210002**	**89210007**
0 → 2.5 bar	**89210003**	**89210008**
0 → 10 bar	**89210004**	**89210009**
0 → 25 bar	**89210005**	**89210010**
0 → 60 bar	**89210006**	
0 → 100 bar		**89210011**

* compared to the atmospheric pressure
** compared to the vacuum

Accessories

Type	Designation	Code
M3 SPECIFIC FUNCTIONS	Library of specific functions (CD-ROM)	**88970103**

General characteristics

Adjustment range (bar)	0 → 0.25	0 → 1	0 → 2.5	0 → 10	0 → 25	0 → 60	0 → 100
Acceptable overpressure (bar)	1.25	5	12.5	30	75	90	150
Burst pressure (bar)	2.5	10	25	50	125	180	300
Pressure Port & outer housing	Inox 1.4305						
Connection of pressure	G 1/4 M Manometer DIN 16288						
Connector Housing	Polyamide (PA)						
Standard Internal Primary Media Ring Material	Viton -17°C → 125°C						
Electrical connections	L-Connector DIN 43650, PG11, IP65						
Conformity to standards	CE, 89/336/EWG interference emission and immunity see EN61326						

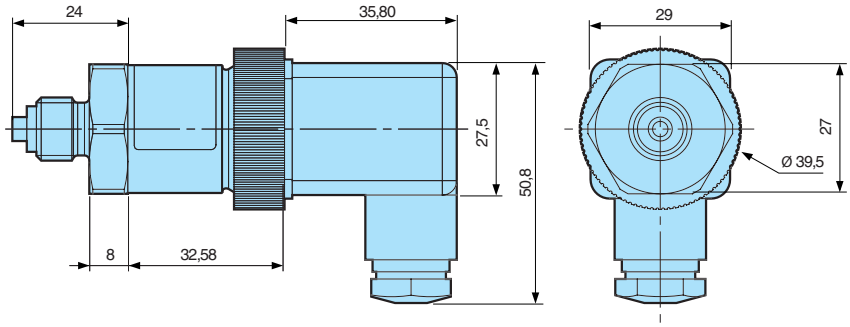
Electrical characteristics

Supply	12 → 32 V ⎓
Output signal	4 → 20 mA / 2 wire
Maximum loop resistance	50 → 1000 Ω - Rmax = (V power supply - 12) / 0.02 A
Response time	< 5 ms, 63% of full scale

Accuracy, Signal Specifications

Operating temperature	-30 → 20 °C	20 → 80 °C	80 → 100 °C
Linearity	± 0.2% of full scale	± 0.1% of full scale	± 0.2% of full scale
Stability	< 1% / year	± 0.2% / year	< 1% / year
Total Error Band (including Hysteresis Repeat)	± 2% max.	± 1% max.	± 2% max.

Dimensions



Nb: To envisage a disc in agreement with the type of connection of pressure