



XMLB



XMLD

XML Industrial Pressure Switches

XML industrial pressure switches meet IEC, Cenelec, UL, and CSA standards. They are CE marked.

- Fixed differential (XMLA), adjustable differential single-pole (XMLB) or double-pole (XMLC), and dual stage (XMLD)
- Range listed is on increasing pressure (psi, bar, kPa)
- External pressure setting window available
- 1 N.O.–1 N.C. snap acting contacts standard
- Temperature range: –13 to +158 °F (–25 to +70 °C)
- Enclosure rating: IP65 with plug-in connector, IP66 with terminal connections
- Operating rate: up to 120 operations / min. for diaphragm and 60 / min. for piston
- Media connection: 1/4" NPT
- Conduit connection: 1/2" NPT

Table 22.39: Specifications

Enclosure Rating	Screw terminal models: IP66 conforming to IEC/EN 60529; Connector models: IP65 conforming to IEC/EN 60529	
Ambient Temperature	Operation	–25 to +70 °C (–13 to +158 °F)
	Storage	–40 to +70 °C (–40 to 158 °F)
Repeat Accuracy	< 2%	
Fluids Controlled	Hydraulic oils, air, fresh water, 32 to 320 °F (0 to +160 °C), depending on the model Steam, corrosive fluids, viscous products, 32 to 320 °F (0 to +160 °C), depending on the model	
Operating Rate (operating cycles/minute)	Piston version switches: up to 60 cycles/minute for temperatures above 32 °F (0 °C) Diaphragm version switches: up to 120 cycles/minute for temperatures above 32 °F (0 °C)	
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) conforming to IEC 947-5-1 Appendix A, EN 60 947-5-1	
Type of Contacts	Silver tipped contacts XMLA & XMLB: 1 C/O single-pole contact (4 terminal), snap action XMLC: 2 C/O single-pole contacts (8 terminals), simultaneous snap action XMLD: 2 C/O single-pole contacts (8 terminals), staggered snap action	
Resistance Across Terminals	< 25 mW conforming to NF C 93-050 method A or IEC 255-7 category 3	
Terminal Referencing	Conforming to CENELEC EN 50013	
Short-Circuit Protections	10 A cartridge fuse type gG (gl) recommended	
Connection	Screw clamp terminals; Clamping capacity, min: 1 x 0.2 mm ² , max: 2 x 2.5 mm ²	

Table 22.40: Component Materials in Contact with Fluid

Pressure Switch Catalog Number	Zinc Alloy	Stainless Steel	Brass	Steel	Nitrile	PTFE	FPM, FKM	Aluminum
XMLAM01V**** / XMLM02V****	X	X [1]	—	—	X	—	—	—
XMLBM03S****	—	X [1]	—	—	—	X	—	—
XMLM05A****	X	X [1]	—	—	X	—	—	—
XMLBL05S****	—	X [2]	—	—	—	X	—	—
XMLL35R****	—	X [2]	—	X	—	—	X	—
XMLL35S**** / XML001S****	—	X [2]	—	—	—	X	—	—
XML002A****	X	—	—	—	X	—	—	—
XML002B****	—	—	—	X	—	—	X	—
XMLA004A**** / XMLB004A****	X	—	—	—	X	—	—	—
XML004B****	—	—	—	X	—	—	X	—
XML010A****	X	—	—	—	X	—	—	—
XML010B****	—	—	X	—	—	—	X	—
XML020A**** / XML035A****	X	—	—	—	X	—	—	X
XML020B**** / XML035B****	—	—	X	—	—	—	X	—
XML070D**** / XML160D**** / XML300D****	—	—	X	X	—	X	X	—
XML500D****	—	—	X1	X	—	X	X	—

Table 22.41: Interpretation of the Catalog Number (example: XMLD070D1S13)

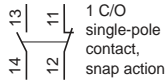
(XML) D	070	D	1	S	1	3	
Contacts	Rated Pressure	Actuator	Scale	Electrical Connection	Output	Fluid Connection	
A Fixed differential, single-pole contact	Code	Diaphragm	1 Without	S Without connector (not available on solid-state devices)	1 Contacts	Fluid	Electrical
	L05 0 to 0.725 0 to 0.05						
B Adjustable differential, single-pole contact	M01 -14.5 to -4.06 -1 to -0.28	B Hydraulic oil, air, fresh water, sea water (0 to 160 °C)	3 1/4 in. NPTF 1/2 in. NPT				
	M02 -14.5 to -2.03 -1 to -0.14	C Corrosive fluids		4 PT 1/4 (JIS B0203) 1/2 in. PF (JIS B0202)			
C 2 adjustable differential, single-pole contacts, simultaneous	M03 -2.9 to -.029 -0.2 to -0.02	P Viscous fluids	3 1/4 in. NPTF 1/2 in. NPT				
	M05 -7.25 to 72.5 -0.5 to 5	R Hydraulic oil, air (0 to 160 °C)		4 PT 1/4 (JIS B0203) 1/2 in. PF (JIS B0202)			
D 2 fixed differential, single-pole contacts, staggered	001 0 to 14.5 0 to 1	S Fresh/sea water, corrosive fluids (0 to 160 °C)	4 PT 1/4 (JIS B0203) 1/2 in. PF (JIS B0202)				
	002 0 to 36.25 0 to 2.5	Vacuum					
	004 0 to 58 0 to 4	V Hydraulic oil, air, fresh water, sea water (0 to 70 °C)					
	010 0 to 145 0 to 10	T Hydraulic oil, air, fresh water, sea water (0 to 160 °C)					
	020 0 to 290 0 to 20	Piston					
	035 0 to 507.5 0 to 35	D Hydraulic oil					
	040 0 to 580 0 to 40	E Fresh / sea water					
	070 0 to 1015 0 to 70						
	160 0 to 2320 0 to 160						
	300 0 to 4350 0 to 300						
500 0 to 7250 0 to 500							

NOTE: Use this table only to interpret the catalog number. Some combinations are not available

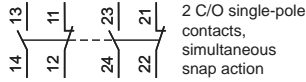
[1] X2GNiMo 17-12-2 (AISI 316L)
[2] X8GNiS 18-09 (AISI 303)

Terminal Diagrams

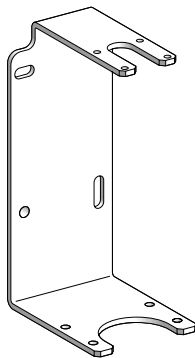
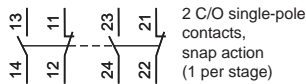
XMLA, XMLB



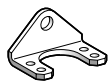
XMLC



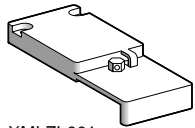
XMLD



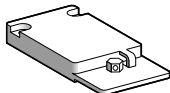
XMLZL006



XMLZL002



XMLZL001



XMLZL011

XML Catalog Numbers and Accessories

Table 22.42: Fixed Differential Catalog Numbers

Range on Increasing Pressure (psi)	Approximate Differential Across Range	Maximum Allowable Pressure	Catalog Number
Fixed, 1 Single-Pole Contact (XMLA)			
-4.06 to -14.5	3.5	130.5	XMLAM01V2S13
0.435 to 14.5	0.29 low / 0.58 high	32.62	XMLA001S2S13
2.17 to 36.25	1.88	130.5	XMLA002A2S13
5.8 to 58	5.07	130.5	XMLA004A2S13
8.7 to 145	7.25	326.25	XMLA010A2S13
10.2 to 290	5.8 low / 14.5 high	652.5	XMLA020A2S13
21.75 to 507.5	18.12	1160	XMLA035A2S13
72.5 to 1015	43.5 low / 108.75 high	2320	XMLA070D2S13
145 to 2320	79.75 low / 261 high	5220	XMLA160D2S13
290 to 4350	239.25 low / 507.5 high	9787.5	XMLA300D2S13
435 to 7250	290 low / 652.5 high	16312.5	XMLA500D2S13
Fixed, 2 Single-Pole Contacts, Staggered (XMLD)			
0.84 to 5.07	0.44	32.62	XMLDL35S1S13
-1.74 to -14.5	1.45	130.5	XMLDM02V1S13
1.74 to 14.5	0.44 low / 1.02 high	32.62	XMLD001S1S13
4.93 to 36.25	2.03 low / 2.76 high	130.5	XMLD002B1S13
5.8 to 58	2.18 low / 2.76 high	130.5	XMLD004B1S13
17.4 to 145	6.53 low / 8.7 high	326.25	XMLD010B1S13
2.14 to 20	10.15 low / 18.85 high	652.5	XMLD020B1S13
63.8 to 507.5	21.75 low / 37.7 high	1160	XMLD035B1S13
136.3 to 1015	72.5 low / 137.75 high	2320	XMLD070D1S13
239.25 to 2320	127.6 low / 290 high	5220	XMLD160D1S13
522 to 4350	246.5 low / 609 high	9787.5	XMLD300D1S13
594.5 to 7250	304.5 low / 942.5 high	16312.5	XMLD500D1S13

Table 22.43: Adjustable Differential Catalog Numbers

Range on Increasing Pressure (psi)	Approximate Differential Across Range	Maximum Allowable Pressure	Catalog Number
Adjustable, 1 Single-Pole Contact (XMLB)			
0.038 to 0.72	0.02 low / 0.06 high	1.63	XMLBL05S2S13
0.65 to 5.07	0.6 low / 0.72 high	32.62	XMLBL35R2S13
-2 to -14.5	1.9	130.5	XMLBM02V2S13
-0.29 to -2.9	0.26	29	XMLBM03S2S13
-7.25 to 72.5	7.25	163.12	XMLBM05A2S13
0.72 to 14.5	0.58 low / 0.87 high	32.62	XMLB001S2S13
4.35 to 36.25	2.32 low / 3.04 high	130.5	XMLB002A2S13
3.62 to 58	2.9 low / 3.62 high	130.5	XMLB004A2S13
10.15 to 145	8.26 low / 12.32 high	326.25	XMLB010A2S13
18.9 to 290	14.5 low / 23.2 high	652.5	XMLB020A2S13
50.75 to 507.5	24.65 low / 36.97 high	1160	XMLB035A2S13
101.5 to 1015	68.15 low / 127.6 high	2320	XMLB070D2S13
145 to 2320	134.85 low / 301.6 high	5220	XMLB160D2S13
319 to 4350	281.3 low / 536.5	9787.5	XMLB300D2S13
435 to 7250	333.5 low / 762.7 high	16312.5	XMLB500D2S13
Adjustable, 2 Single-Pole Contacts, Simultaneous (XMLC)			
0.65 to 5.07	0.29 low / 0.51 high	32.62	XMLCL35S2S13
-2 to -14.5	1.89 low / 2.03 high	130.5	XMLCM02V2S13
-7.97 to 72.5	6.52	163.12	XMLCM05S2S13
0.725 to 14.5	0.43 low / 0.58 high	32.62	XMLC001S2S13
4.35 to 36.25	1.89 low / 2.47 high	130.5	XMLC002B2S13
4.35 to 58	2.18 low / 2.47 high	130.5	XMLC004B2S13
10.15 to 145	6.53 low / 10.15 high	326.25	XMLC010B2S13
18.85 to 290	10.15 low / 14.5 high	652.5	XMLC020B2S13
50.75 to 507.5	14.5 low / 21.75 high	1160	XMLC035B2S13
101.5 to 1015	65.25 low / 129.05 high	2320	XMLC070D2S13
174 to 2320	130.5 low / 304.5 high	5220	XMLC160D2S13
319 to 4350	232 low / 507.5 high	9787.5	XMLC300D2S13
435 to 7250	275.5 low / 754 high	16312.5	XMLC500D2S13

Table 22.44: Accessories for XML Pressure and Vacuum Switches

Description	For Use with Switches	Catalog Number
Rear mounting bracket For vibrations > 2 gn	XML-L35 XML-001	XMLZL006
Additional top support bracket For vibrations > 4 gn	XMLAM01 XML-M05 XMLA004 XML-010 ... XML-500	XMLZL002
Lead sealable protective cover To prevent unauthorized access to the adjustment screws and the switch cover mounting screw	XMLA XMLB	XMLZL001
Lead sealable protective cover To prevent unauthorized access to adjustment screws	All models	XMLZL011