

# Compact Pressure Switches

## Series 8000

Series 8000 - mechanical pressure switches or piston design. The successors of the XTK, X1T and 96200 have the additional low and precise switching point settings.

### Features

Modular construction,  
Versatile,  
High-quality materials,  
100% assays,  
Long pressure spring

### Adjustment ranges

0.6...600 bar

### Applications

OEM applications,  
Mobile- and industrial-hydraulics and pneumatics,  
Test bed and apparatus engineering,  
Heavy industry



### Technical Data

<b>Wetted parts:</b> standard:	NBR, PTFE with bronze and stainless steel 1.4301; pistons: steel
optional:	FKM, EPDM, CR instead of NBR
<b>Repeatability:</b>	±1% type, piston pressure switch ±2% type, diaphragm pressure switch
<b>Switching rate:</b>	max. 60/min piston pressure switch max. 30/min diaphragm pressure switch
<b>Temperature range:</b> Piston switch: Diaphragm switch:	-40 °C ... +80 °C (-40 °F ... +176 °F) -20 °C ... +80 °C (-4 °F ... +176 °F)
<b>Protection class:</b> standard:	IP65 (plug connector), IP68 (cable) UL
optional:	Inherent safety Ⓢ II 1G Ex ia IIB T6 (DIN plug) - EXI Ex ia IIC T6 (cable version) - EXI Ⓢ II 1GD Ex ia D 20 T100 UL, Type 4, for indoor and outdoor use

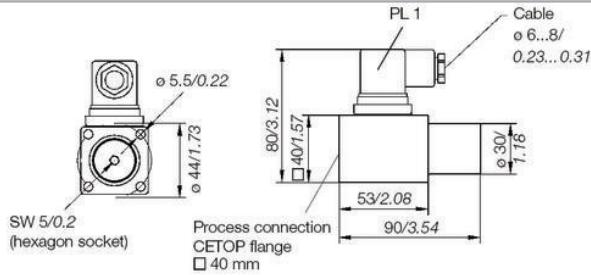
<b>Housing:</b> standard: optional:	Aluminium Stainless steel 1.4305 / SS 304, Version - VA
<b>Process connection:</b>	CETOP flange Ø40x40 mm, (order code "1") see dimensions
<b>Electrical connection:</b>	see dimensions
<b>Weight:</b> CETOP flange version:	350 g (0.77 lbs)
<b>Micro switch:</b>	Change-over contact (SPDT)
<b>Set screw:</b> standard optional	Aluminium Stainless steel 1.4305 / SS304 (SW5), captive
<b>Approvals:</b>	GL, Ex ia, cULus, further approvals on request

### Pressure Ranges and Proof Pressures

Pressure range code		Adjustment range (pressure increasing)		Adjustment range (pressure decreasing)		Max. operating pressure		Proof pressure		Max. hysteresis range end
[bar]	[psi]	[bar]	[psi]	[bar]	[psi]	[bar]	[psi]	[bar]	[psi]	
Diaphragm										
1	A	0.6 ... 6.0	(8.7...87)	0.4... 5.7	(5.8...82)	50	725	80 *	(1,200)	≤15%
2	B	3.0... 20.0	(45.0...250)	2.0... 17.0	(29...246)	50	725	80 *	(1,200)	
3	C	4.0... 45.0	(60.0...650)	3.0... 41.0	(43...600)	50	725	80 *	(1,200)	
Piston										
4	D	5.0... 180	(75...2,600)	3.0... 160	(43...2,320)	250	3600	600	(8,700)	≤15%
5	E	50.0... 350	(750...5,000)	30.0... 300	(430...4,300)	450	6500	600	(8,700)	
6	F	80.0... 600	(1,200...8,700)	55.0... 520	(800...7,550)	600	8700	900	(15,000)	

\* Test pressure 200 bar (2,900 psi) upon request, results in less lifetime of the switch.

### Dimensions (mm / inch)

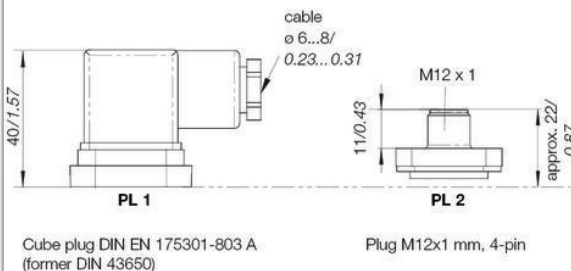


### Switching- and connection diagram (pressureless)

	PL1	PL2
C	1	1
NC	2	2
NO	3	4
PE	---	3

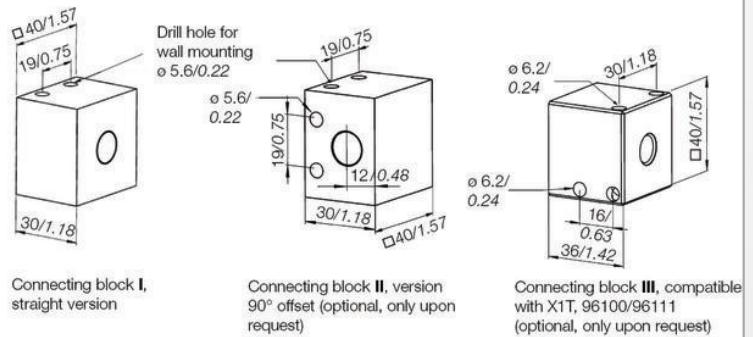
Up to pressure stage 5 or E every pressure switch is supplied with two fastening screws M5x60 mm according to DIN 912 (10.9, galvanized).  
The pressure switches of pressure stage 6 or F are supplied with four screws.

### Electrical connection (PL1 = standard)



### Process connections

Complete assembly with pressure switch only upon request



### Electrical Ratings

Micro switch	Special features	Volt AC 50/60 Hz	Ind. Load A	Res. Load A	Volt DC	Ind. Load A	Res. Load A	Minimum capacitance	Intrinsic safety Ex ia
1	Silver contacts	250 V ~ 125 V ~	2.0 2.0	5.0 5.0	30 V= 250 V=	2.0 0.03	5.0 0.2	10 mA at 12 VDC	U <sub>max</sub> = 28 V I <sub>max</sub> = 50 mA
2	Gold contacts*	U x I = max. 0.12 VA			≤ 300 mV = ≤ 30 V =	--- ---	≤ 400 mA ≤ 4 mA	0 mA / 0 VDC	

\* e.g. suitable for PLC and/or Ex ia

### Seal

Code	Seal
B	NBR
N	CR
E	EPDM
V	FKM

### Options

Code	Housing
VA	1.4305

### Approvals

EXI	Ex ia
GL	Germanischer Lloyd
UL	cULus approval

### Order Code

Example for order number

Type	Process connection	Pressure range	Micro switch Contact	Electrical connection	Seal	Options	Approvals
8	1	2	1	PL1	B	VA	GL

Your order number

8	1						
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### Accessories

Connecting block no.	Order No.	Process connection	Designation	Material
I	906-0953	1/4" NPT female	straight	St passivated
I	906-0954	G 1/4" female	straight	St passivated
I	906-0946	1/4" NPT female	straight	1.4301
I	906-0947	G 1/4" female	straight	1.4301
II	906-0926	G 1/4" female	90° offset	1.4301
II	906-0927	1/4" NPT female	90° offset	1.4301
III	906-0919	G 1/4" female	straight	AlMg4,5Mn0,7