

Compact Pressure Switch Series 8000

Technical Data

Series 8000 - a mechanical pressure switch with diaphragm or piston sensing element. The successor of the product lines XTM, XTK, X1T and 96200 provides additional advantages:

- extremely low and precise setpoint adjustment
- the electrical connection can be aligned in any direction, as the threaded fitting can be rotated in the housing by 360°

Repeatability	: ±1% typical, piston switch ±2% typical, diaphragm switch
Switching Frequency	: max. 60/min piston switch max. 30/min diaphragm switch
Ambient Temperat. Range	
Piston Switch	: -40 °C...+80 °C (-40 °F...+176 °F)
Diaphragm Switch	: -20 °C...+80 °C (-4 °F...+176 °F) -50 °C (-58 °F) on request
Housing	: Aluminum die-cast 230
Wetted Parts	: NBR, PTFE with bronze and Stainless Steel 1.4301
- optional	: FKM, EPDM instead of NBR
Adjustment Screw	: Stainless Steel 1.4301 (hex 5)
Pressure Connection	: See options on next page
Electrical Connection	: See options on next page
Microswitch	: SPDT contact
Protection Class	
- Standard	: IP65 (DIN-plug), IP68 (cable)
- optional	: Intrinsically safe II 1GD EExia IIB T6 (DIN plug) EExib IIC T6 (cable) Please add 'EXI' to your ordering details when placing an order.
Total Weight	
CETOP flange model	: 350 g (0,77 lbs)
Thread connect. model	: 400 g (0,88 lbs)

11 / 05 S8000 US 923-1295 01/5

Wiring Code for all Types
(contact status at atmospheric pressure)

* vertical mounting bores (VB) - optional

Adjustable Ranges and Proof Pressures

Pressure Range Code	Adjustable Ranges (bar / psi)	Adjustable Ranges (decreasing pressure) (bar / psi)	Adjustable Ranges (increasing pressure) (bar / psi)	Max. Hysteresis (End of Range)	Proof Pressure (bar / psi)
Diaphragm					
1 A	0,4...6,0 (6,0...87)	0,3...5,7 (4,5...82)	0,4...6,0 (6,0...87)	≤15%	80 ⁽¹⁾ (1160)
2 B	3,0...20 (43...290)	2,0...17 (29...246)	3,0...20 (43...290)		80 ⁽¹⁾ (1160)
3 C	4,0...45 (58...650)	3,0...41 (43...600)	4,0...45 (58...650)		80 ⁽¹⁾ (1160)
Piston					
4 D	5,0...180 (73...2610)	3,0...160 (43...2320)	5,0...180 (73...2610)	≤20%	600 (8700)
5 E	50...350 (730...5075)	30...300 (430...4300)	50...350 (730...5075)		600 (8700)
6 F	80...600 (1160...8700)	55...520 (800...7550)	80...600 (1160...8700)		900 (13053)

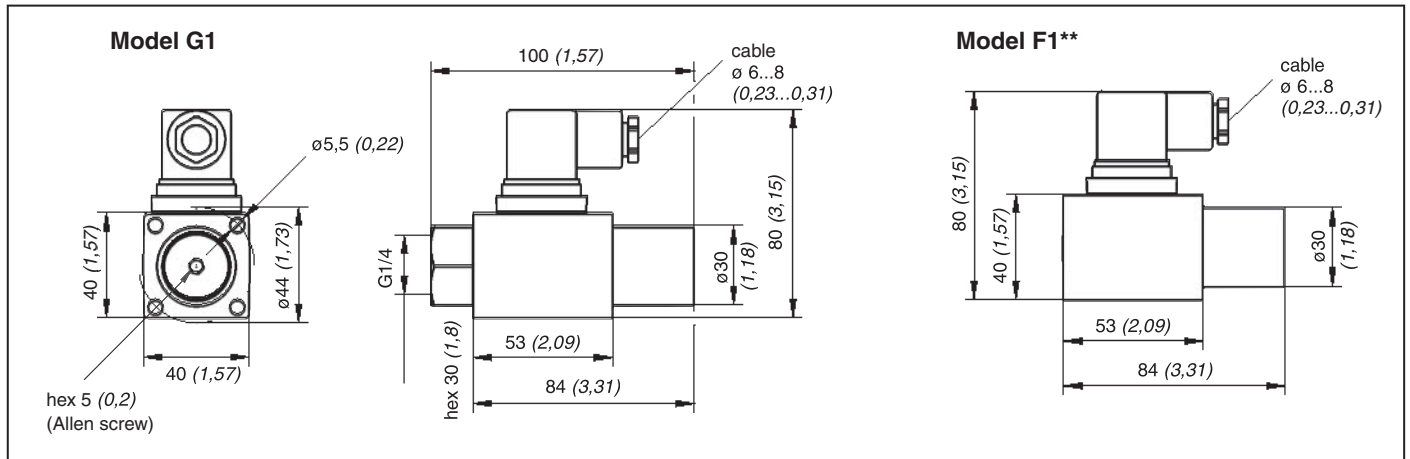
(1): Proof pressure 200 bar (2900 psi) on request (May shorten the lifetime of the switch).

Specifications are subject to changes without notice.

Compact Pressure Switch Series 8000

Dimensions (in mm / inch)

11 / 05 S8000 US 923-1295 01/5



Electrical Ratings

Silver contacts	Inductive load	Resistive load	Gold plated contacts	Resistive load
30 V =	3,0 A	4,0 A	30 V =	0,1 A
250 V =	0,2 A	0,2 A	125 V~	0,1 A
250 V~	2,0 A	3,0 A	Intrinsically safe EExia	
125 V~	3,0 A	5,0 A	Umax = 28 V	Imax = 50 mA
Min. applicable load 160 mA at 5 V DC			Min. applicable load 0,1 mA at 5 V DC	

Order Codes

The listed Art.-No. result from this standard version, the measuring ranges and the process connections:

Standard Model:		CETOP 40 x 40 Flange		G 1/4 F		1/4" NPTF	
Housing:	Aluminum die-cast	Art. No.	Order Code	Art. No.	Order Code	Art. No.	Order Code
Microswitch:	Silver contacts	0417-011	8111-PL1-B	0417-017	8211-PL1-B	0417-023	8411-PL1-B
Process Conn.:	V2A 1.4301 / 304SS	0417-012	8121-PL1-B	0417-018	8221-PL1-B	0417-024	8421-PL1-B
Diaphragm:	NBR	0417-013	8131-PL1-B	0417-019	8231-PL1-B	0417-025	8431-PL1-B
Piston:	Steel or V2A 1.4301	0417-014	8141-PL1-B	0417-020	8241-PL1-B	0417-026	8441-PL1-B
Seal:	PTFE w. bronze/NBR	0417-015	8151-PL1-B	0417-021	8251-PL1-B	0417-027	8451-PL1-B
Electrical Conn.:	Plug DIN 43650 A	0417-016	8161-PL1-B	0417-022	8261-PL1-B	0417-028	8461-PL1-B
Adjustm. Screw:	Allen screw hex 5 mm						

Order Number Key / Options (Example) **8 1 6 1 - PL1 - B - GL** (grey = standard) * on request (non standard)

Series 8000

Pressure Connections:

Special connect. / not standard	0*
Cetop connection flange 40 x 40	1
G1/4 F (BSP)	- hex 30 2
G1/4 M (BSP)	- hex 30 3*
1/4" NPT F	- hex 30 4
1/4" NPT M	- hex 30 5*

Measuring Range

bar	psi
1 = 0,4...6,0	A = (6,0...87)
2 = 3,0...20	B = (43...290)
3 = 4,0...45	C = (58...650)
4 = 5,0...180	D = (73...2610)
5 = 50...350	E = (730...5075)
6 = 80...600	F = (1160...8700)

Electrical Connections:

Plug DIN EN175301-803 A, IP65	PL1
Plug M12, 4 pin without female plug, IP67	PL2
Plug M12, 4 pin, IP67 with 90° plug, 2 m cable	PL3
Plug Bayonet DIN 72585 without female plug, IP69K	PL4*
Cable gland, 2 m cable, IP68	CA1
1/2" NPT F with 60 cm leads	CD1*

SPDT Contacts:

Silver	1
Gold-plated	2

Options on request:

Intrinsically safe EEx ia	- EXI
Shipboard approval GL	- GL
UL approval Nema 4	- UL
Vertical mounting bores	- VB

Seals:

NBR	B
FKM	V
EPDM	E*
CR	N*
Polyimide	K

** Model F1 at pressure ranges 1 to 5 is (A to E) delivered with 2 spring clips and 2 mounting screws M5 x 60 mm, steel 10.9, galvanised (hex 4). Pressure range 6 (F) is delivered with 4 mounting screws.

Specifications are subject to changes without notice.



TR Automatyka Sp. z o.o.

ul. Lechicka 14
02-156 Warszawa
tel. +48 (22) 886 10 16, fax. +48 (22) 846 50 37
NIP: 522-27-58-993
http://www.trautomatyka.pl
e-mail: biuro@trautomatyka.pl