

Compact Pressure Switches

Series 9000

Mechanical pressure switch in piston design with 30 x 30 x 92 mm front face and precise switching point setting

Features

High-quality materials,
100% functional test,
Compact design,
Long pressure spring (precisely adjustable),
G1/4" female thread, Set screw captive

Adjustment ranges

2...400 bar

Applications

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



Technical Data

Wetted parts: ¹⁾	sealing: piston: PTFE / FKM / EPDM / NBR diaphragm: NBR fitting: Stainless Steel / Aluminium piston: steel (100Cr6)
Repeatability:	±2% (typically)
Switching rate:	max. 60/min.
Temperature range:	
storage:	-40 °C ... +80 °C (-40 °F ... +176 °F)
piston switch:	-20 °C ... +80 °C (-4 °F ... +176 °F)
diaphragm switch:	-10 °C ... +80 °C (14 °F ... + 176 °F)
Protection class:	IP65
Housing:	
standard:	Aluminium
optional:	Stainless steel (1.4305) / AISI 303, Version - VA

Process connection:	G1/4" female thread DIN ISO 228-1
Weight:	175 g (0.39 lbs)
Electrical connection:	EN 175301-8013-A plug (formerly DIN 43650)
Micro switch:	(SPDT) silver contacts
Set screw:	
standard	Aluminium
optional	Stainless steel, 1.4305 / AISI 303 (SW5), captive
Approvals:	DNV-GL, BV others on request

¹⁾ Suitable media: All common hydraulic oils and fluid greases, and, with restrictions, aqueous media or gases. For more information, see operating manual.

Pressure Ranges

Pressure range code [bar]	Adjustment range		Max. hysteresis at full range max %	Max. operating pressure [bar]	Proof pressure [bar] (short term)
	Decreasing press. [bar]	Increasing press. [bar]			
02	1.5 ... 14	2 ... 16	≤ 18%	40	60
03	1.5 ... 27	3 ... 30	≤ 10%	40	60
1	6 ... 44	10 ... 50	10%	250	300
2	15 ... 185	20 ... 200		250	300
3	35 ... 360	40 ... 400		500	600

Process Connection / Electrical Connection / Seal

Process connection	Electrical connection	Seal
(2) G1/4" IG DIN ISO 228-1 (3)* G1/4" UG DIN ISO 228.1 with 2 mounting holes (Ø 5,5 mm / 20 distance) (4)* Flange connection, housing only in VA (SS)	(PL1) Plug, 4-pin acc. to EN 175301-803-A	(V) FKM (B) NBR (E) EPDM

* 90° offset process connection on request.

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Dimensions (mm / inch)

Code 2

Code 3

Code 4

Code 2 / Code 3

Code 2 / Code 3 / Code 4

A	Kabel ∅ 6...8 / Cable ∅0.23...0.31 (Pg 11)
B	Membranversion / diaphragm version L=102 [4.02]

Wiring and connection diagram 930-0130 A

	PL1
C	1
NC	2
NO	3
PE	---

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
1	Silver contacts	250 V~	2.5	10.0	24 V=	1.0	6.0	20 mA at 24 VDC

Approvals

GL	Germanischer Lloyd
BV	Bureau Veritas

Options

VA	Stainless Steel AISI 303, only for process connection code 3
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Order Code

Serie 9000

9

Process connection

2	G1/4" IG DIN ISO 228-1
3	G1/4" IG DIN ISO 228-1 with 2 mounting holes (Ø 5,5mm / 20mm distance)
4	Flange connection, housing only in VA(SS)

Pressure Ranges, falling (rising), bar

02	1.5 ...14 (2 ... 16) diaphragm version
03	1.5 ...27 (3 ... 30) diaphragm version
1	6 ... 44 (10 ... 50) piston version
2	15 ... 185 (20 ... 200) piston version
3	35 ... 360 (40 ... 400) piston version

Micro Switch Contact

1	Silver contacts
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Electrical Connection

PL1	Cube plug DIN EN 175301-803A (IP65)
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Sealing

B	NBR (fluid temp. range -20°...+80°C)
E	EPDM (fluid temp. range -40°...+80°C) - not for diaphragm
V	FKM (fluid temp. range -20°...+80°C) - not for diaphragm

Options

VA	Housing 1.4305 (for process connection 3 & 4 only)
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Approvals

GL	DNV-GL
BV	Bureau Veritas

Example for order code

9 3 2 1 - PL1 - B - VA