

DSD: Differential pressure switch

How energy efficiency is improved

Demand-based monitoring of differential pressures without auxiliary energy

Features

- For monitoring the differential pressure in liquids, gases and vapours
- For use in, for example, filter technology and in process plants
- Differential pressure setting ranges from 0.06 to 6 bar
- Up to 80 °C media temperature
- High repeatability
- High overload protection
- Can be used in all neutral media, such as heating water, neutral gases, oils etc.
- Long serviceable life
- With fitting bracket

Technical data

Parameters

Min. load	AC min: 0.1 A, 250 VAC, 25 VA DC min: 0.1 A, 30 VDC
Max. load	AC max: 3(1) A, 250 VAC, 250 VA DC max: 0.4 A, 30 VDC, 10 W
Temperature dependence	1.5%/10 K
Accuracy	3% of the setting range
Hysteresis	12% of the setting range
Mechanical serviceable life	10 ⁶ switchings
Max. static operating pressure (positive and negative pressure)	16 bar

Ambient conditions

Ambient temperature	-10...70 °C
Media temperature	0...80 °C (non-freezing media)
Ambient humidity	45...75% rh

Construction

Power cable ¹⁾	3...0.5 mm ²
Diaphragms	Chromium-nickel steel 1.4310
Connection thread	G 1/8" (female thread)
Weight	0.2 kg

Standards, directives

Type of protection	IP65 (EN 60529)
Protection class	II (EN 60730)

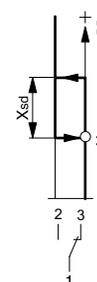
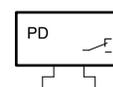
CE conformity according to	Low-Voltage Directive 2014/35/EU	EN 60730-1, EN 60730-2-6 Altitude up to 2000 m
	EMC Directive 2014/30/EU	EN 55014-1 Click rate N < 0.2 Art. 4.4
	PED 2014/68/EU	Art. 4.3 and Art. 13, fluid group 2

Overview of types

Type	Setting range (bar)
DSD134F102	0.06...0.6
DSD137F002	0.10...1.0
DSD140F002	0.25...2.5
DSD143F002	0.6...6.0



DSD1**F002



¹⁾ 1 m long, fixed wiring

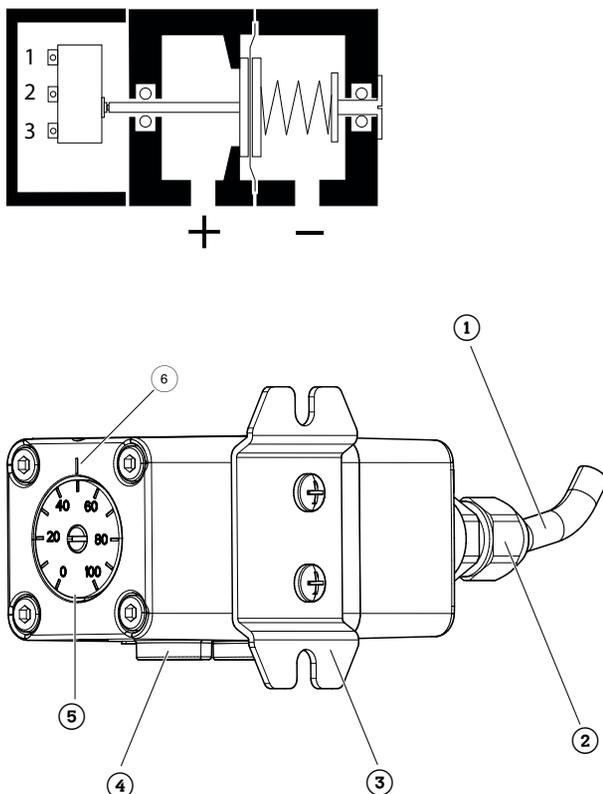


Accessories

Type	Description
0300360005	Cutting ring fitting G $\frac{1}{8}$ " to 6 mm pipe (2 pcs)
0300360006	Pneumatic fitting G $\frac{1}{8}$ " to 6 mm hose (2 pcs)
0300360016	Throttle screws G $\frac{1}{8}$ ", G $\frac{1}{8}$ " (2 pcs)

Description of operation

The pressure to be measured exerts a force on one side of a sturdy diaphragm. This force affects the diaphragm system. A switching tappet mounted on the diaphragm activates a micro-switch. The switching point can be set via a setpoint adjuster. A scale fitted to the setpoint adjuster and a setting marker show the respective switching point that is set. The product is suitable for positive, negative and differential pressure measurement.



(1) Connection cable	(2) Cable gland
(3) Fitting bracket	(4) Plug connection
(5) Setpoint adjuster	(6) Setting marker

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the "Description of operation" section.

All related product regulations must also be adhered to. Changing or converting the product is not admissible.

Improper use

The DSD differential pressure switch is not suitable for safety applications.

The product is not suitable for use:

- In drinking water installations
- In means of transport
- Outdoors and in ATEX zones

Additional technical data

Materials that come into contact with the medium:

Housing	Polyamide (reinforced with fibre glass)
Diaphragm, measuring range spring	Chromium-nickel steel 1.4310
Setpoint adjuster, switching tappet etc.	Brass CW614N (CuZn39Pb3 - 2.0401)
Seals	EPDM
Other parts	PTFE

Materials that do not come into contact with the medium:

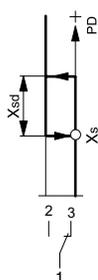
Housing	Polyamide (reinforced with fibre glass)
Cable gland	Polyamide
Power cable	Silicone- and halogen-free polymer
Fitting bracket	Stainless steel 1.4301

Disposal

When disposing of the product, observe the currently applicable local laws.

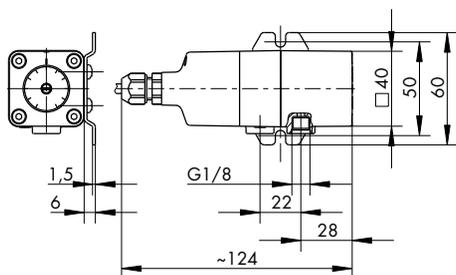
More information on materials can be found in the Declaration on materials and the environment for this product.

Connection diagram



Dimension drawing

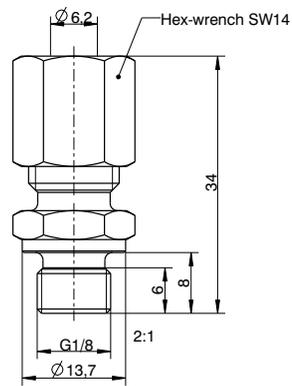
All dimensions in mm.



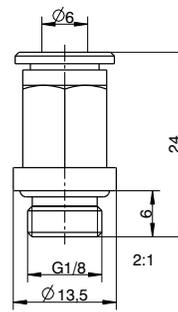
Accessories

All dimensions in mm.

0300360005



0300360006



0300360016

