



DTV...X

Differential pressure switch for air and neutral gases

Differential pressure switch for supervising air handling units, fans, filters or to control defrosting functions.

DTV...X is a pressure switch for supervision of air or non-aggressive, non-flammable gases in air handling systems. The device may be used in, for instance, the following applications:

- Air filters and air handling units
- Industrial air cooling circuits
- Fan overheating protection
- Ventilation duct flow monitoring
- Air control and fire protection dampers
- Heat exchanger frost protection systems

Function

The pressure connected to the high pressure point inlet (P1) is compared to the low pressure connected to P2. When the differential pressure exceeds the setpoint value, the contact will close or open.

When the pressure switch is used to supervise a fan, it is possible to leave the P2 pressure connection (for atmospheric pressure) disconnected.

Setpoint value and setting

The setpoint value is set using a knob under the lid, with the setpoint value visible through the lid. The lid is secured with a single screw to facilitate mounting and service.

The device hysteresis is pre-set upon delivery.

Terminal connections

DTV...X has 3 internal AMP flat plug connectors located under the plastic cover. 3 push-on screw terminals are included upon delivery for easy connection.

Short facts about DTV...X

- For differential pressure up to 5000 Pa
- Lowest setpoint value is 20 Pa (DTV300X)
- Compact design
- Excellent long-term stability
- Easy installation and mounting
- Can be used at temperatures below -20°C

Models

Model	Pressure range	Hysteresis (P)
DTV300X	20...300 Pa	10 Pa ± 15 %
DTV500X	50...500 Pa	20 Pa ± 15 %
DTV1000X	200...1000 Pa	100 Pa ± 15 %
DTV2500X	500...2500 Pa	150 Pa ± 15 %
DTV5000X	1000...5000 Pa	250 Pa ± 15 %

Accessories

ANS-1	2 m plastic tube and two pressure outlets
DBZ-14A	Set with mounting brackets and screws
DBZ-14B	Set with mounting brackets and screws

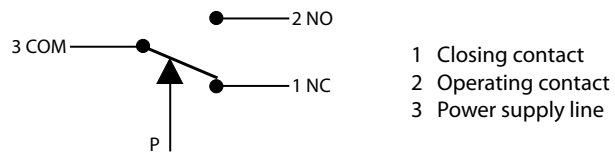
Technical data

Medium	Air, non-combustible and non-aggressive gases
Ambient temperature	-20...+85°C
Storage temperature	-40...+85°C
Max. differential pressure	10 kPa (all models)
Working life	Over 10 ⁶ switching operations
Material	
Sensor housing	Polystyrene
Membrane	Silicone
Mounting bracket (optional)	Galvanized stainless steel with two mounting holes (Ø 5 mm, cc 40 mm)
Protection class	IP54
Weight	0.12 kg
CE	Low Voltage Directive (LVD) standards: This product conforms to the requirements of the European Low Voltage Directive (LVD) 2006/95/EC. RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

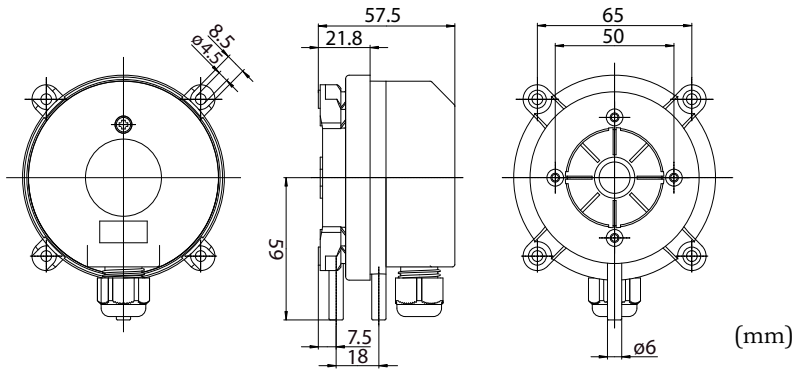
Inputs and outputs

Relay output	Max. 1 A (0.4 A), 250 V AC, change-over contact
Cable connection	AMP flat plug, 6.3 x 0.8 mm in accordance with DIN 46244. Cable conduit with cable strain relief.
Pressure connection	Connection pipes for 6 mm tube, P1 (+) connects to higher pressure, P2 (-) to lower pressure

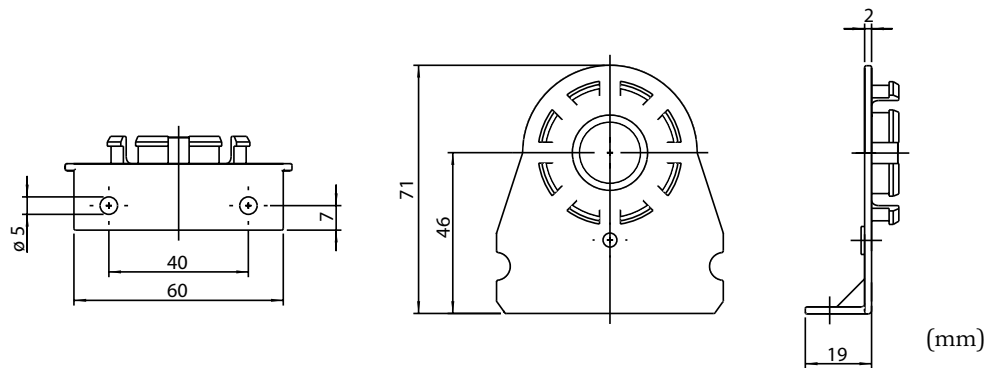
Contact arrangement



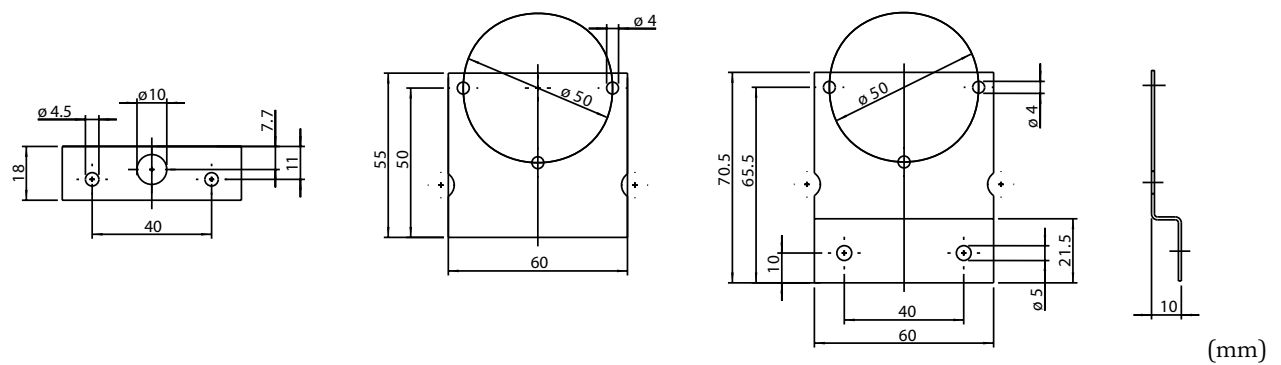
Dimensions, pressure switch



Dimensions, DBZ-I4A



Dimensions, DBZ-I4B



Product documentation

Document	Type
Instruction DTV...X	Instruction for DTV...X