



DT-06

Calorimetric Air Flow Switch

Features

- / Titanium sensor surface
- / No moving parts
- / Simple assembly
- / DC- and AC version available
- / Protection class IP 65
- / Relay output
- / LED function display
- / Cost-effective

Description:

Electronic flow switches operate on the basis of the calorimetric principle. They use the physical effect that a flowing medium absorbs heat and conducts it away. The sensor tip contains two temperature-dependent resistors as well as a heat source. The heat source generates a local temperature rise in the medium which is detected by one of the PTCs. When the medium flows, energy is conducted away from the heat source, i.e. it is cooled. The resulting temperature change is an indication of flow. To avoid a falsification of the result of the measurement by change of the medium temperature, a second PTC is used for temperature compensation. The difference in resistance of both PTCs is used for a temperature compensated statement by the electronic evaluation system „Medium flows“ or „medium does not flow“ as compared with a predefined set-point or limiting value.

Application:

The DT-06 series is intended for cost-effectively detecting and signalling of changing air flow within specified limits, it can be mainly used for monitoring air conditioners as well as ventilation systems. Typical applications are Function control of blowers and fans, Filter condition monitoring, Flap position monitoring for air distribution



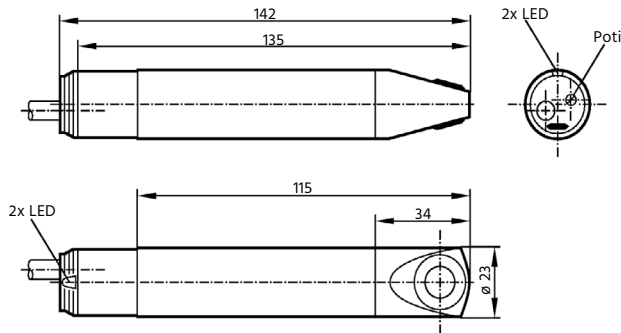
Technical Specifications:

Operating range /	100...1000 cm/s
Greatest sensitivity /	100...400 cm/s
Switch point adjustment /	potentiometer
Power-on delay time /	60 s
Response time /	3...60 s
max. Temperature Media /	-10...+50°C
Gradient temperature /	max. 5 k/min
max. Ambient temp. /	-10...+50°C
max. rel. Air humidity /	90%
max. Pressure /	1 bar
Process connection /	Ø 23 mm
Housing /	PBT (Pocan)
Sensor surface /	Titan
Immersion size /	min. 32 mm to max. 120 mm
Up- and Down- stream dimensions /	min. 5 x D in- and 3 x D outflow
Accessories /	mounting clamp (included)

Electrical Specifications

Supply voltage /	
DT-06.1.x.x.x.x:	80...250 V AC / 90...250 V DC
DT-06.2.x.x.x.x:	24 V AC ± 10%
DT-06.3.x.x.x.x:	24 V DC ± 25%
Overload protection /	no
EI. connection /	
DT-06.1.x.x.x.x:	2m PVC-cable, 4 x 0,5 mm ²
DT-06.1.x.x.x.x:	2m PUR-cable, 4 x 0,5 mm ²
DT-06.1.x.x.x.x:	2m PUR (PVC)-cable, 4 x 0,5 mm ²
Protection class /	IP 65
Contact function /	relay is energized during flow
Switching load /	3 A at 30 V DC / 250 V AC
Function display /	LED 1x red, 1x green
Short-circuit proof /	no
Overload protection /	no

Dimensions Sensor in mm:



Ordering Codes:

Order number	DT-06. 1
DT-06 Calorimetric Air Flow Switch	
Supply voltage /	
1 = 80...250 V AC / 90...250 V DC	
2 = 24 V AC ± 10%	
3 = 24 V DC ± 25%	

Mounting Clamp in mm:

