

Electronic Flow Monitor

for air



Flow
Pressure
Level
Temperature
measurement
monitoring
control



- No moving parts
- Negligible pressure loss

Model:
KAL-L



Method of operation

The model KAL-L... electronic flow switch monitors air and gas flow. It is suited for securely monitoring flows with minimum pressure loss.

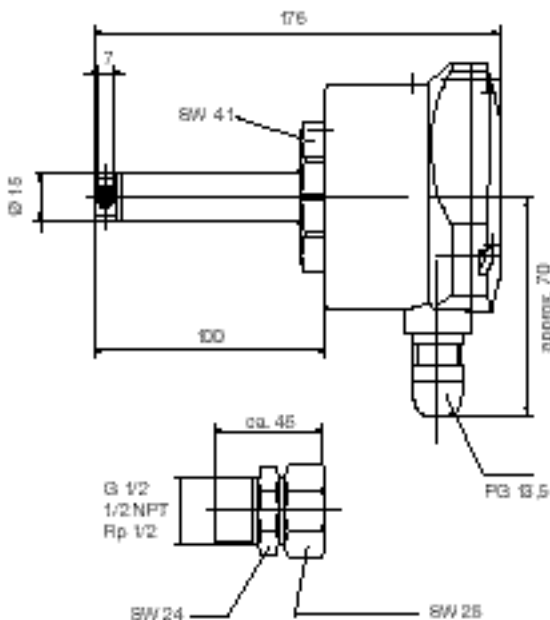
Funktion

The operation of the electronic flow monitor is based on the proven calorimetric principle. A detecting sensor is heated to a few degrees above the temperature of the flow medium. When the medium flows, the heat generated in the sensor is transferred to the medium, ie, the sensor is cooled. The cooling procedure is a measure of the flow velocity. A second sensor measures the medium temperature. The electronics compares the resistances of both sensors by means of a Wheatstone bridge circuit, and switches an output relay if the actual value drops below the set switching value.

Fields of application

- Air conditioning systems
- Extraction plants
- Conveying plants

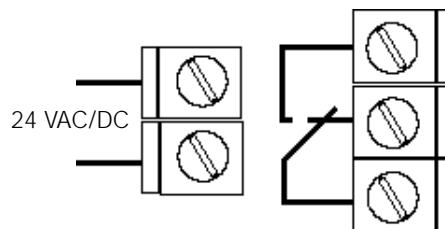
Dimensions



Technical details:

- Power supply: 24 VAC/DC - 15 %, +10 %
- Ambient temperature: -10° C ... +60° C
- Temperature of medium: -25° C ... +120° C
- Max. pressure: 8 bar
- Time delay before availability: max. 30 s
- Switching range: 1 to 20 m/s (at 20° C, 1 bar) (restricted span for other pressure and temperature conditions)
- Switching accuracy: ± 10 % of measured value
- Reproducibility: ± 1 % of measured value
- Temperature gradient: 30 K /min. (at 8 m/s, 90° C)
- Response time: 1...60 s, adjustable
- Flow rate indication: trend indication with 8-LED's
- Switch point adjustment: with potentiometer
- Output indicator: two-colour LED
- Switching output: relay, floating changeover contact
- Contact rating with cable: max. 250 VAC / 1000 VA
- with plug: max. 24 VDC / VAC / 3 A
- Current switched: max. 4 A
- Protection type: IP 65
- Case material: glass-fibre-reinforced polyamide
- Sensor material: brass, nickel-plated

Electrical connection



Order details

Connection	Order No.	Electrical connection
Smooth shank D=15 mm	KAL L8100 WK	PG=cable conn. M16x1,5 ST=connector M12x1 S4=connector DN 43650 N4=1/2 NPT cable connector
Compression fitting G 1/2	KAL L81G1 WK	
Compression fitting Rp 1/2	KAL L81R1 WK	
Compression fitting 1/2" NPT	KAL L81N1 WK	
with clamping flange according to DIN 43 743	KAL L81FL WK	
M18 x 1,5	KAL-L0118 WK	

Example of order: KAL L81FL WK ST