

KLSW

Duct air velocity switch, electronic



Summary

The KLSW measures air velocity in the air ducts and switches the contact according to the air velocity setpoint.

Applications

- Air flow monitoring in HVAC plants, or as a safety element at air humidifiers and electrical heaters as in DIN 57100 part 420.

Function

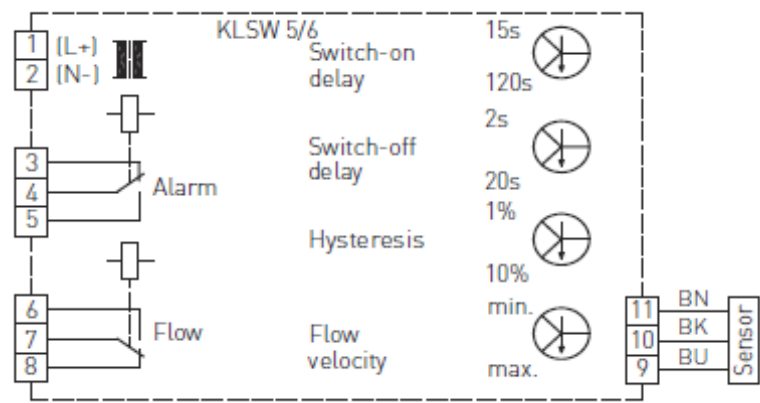
The sensor contains temperature compensation function.

Make sure that the sensor is properly installed and oriented in the duct – follow attached mounting instructions!

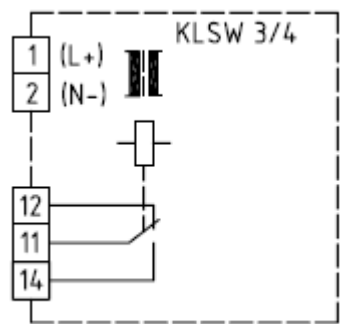
Technical data

Power supply	230 V AC +5/-13 %, 50-60 Hz or 24 V AC/DC (see type summary), 3 VA
Setpoint KLSW3,4	0.1 ... 30 m/s, adjustable
Setpoint KLSW5,6	0.1 ... 15 m/s, adjustable
Sensitivity	0.1 ... 5 m/s
Hysteresis	ca. 1..10 % (adjustable)
Switch-on delay	ca. 15...120 s (adjustable)
Switch-off delay	ca. 2...20 s (adjustable)
Max. cable length	50 m
Output signal	1 or 2 relays, changeover contacts
Ambient temperature	0...60°C, air 0...80°C
Max. cable length	50 m; avoid parallel cabling to power lines
Cable gland	M16x1,5; max. cable diameter 10,4 mm
Protective tube	Ø 10 mm, NL = 140 mm, metallic
Housing	polyamide reinforced with 30 % glass fibre, colour white (similar to RAL9010)
Terminals	screw terminals for wires 0,14 – 1,5 mm ²
Protection class	I (for power voltage 230 V), III (for power voltage 24 V)
Protection degree	IP65
Dimensions	see below

Terminals



- | | | | |
|---|------------|---|-----------|
| 1 | Power | 6 | Flow, NO |
| 2 | Power | 7 | Flow, COM |
| 3 | Alarm, NC | 8 | Flow, NC |
| 4 | Alarm, COM | | |
| 5 | Alarm, NO | | |



- | | |
|----|-------|
| 1 | Power |
| 2 | Power |
| 12 | NC |
| 11 | COM |
| 14 | NO |

Type summary

Type	Setpoint range	No. of stages	Power supply	Output
KLSW-3	0.1 ... 30 m/s	1	230 V AC	1x changeover contact
KLSW-4	0.1 ... 30 m/s	1	24 V AC/DC	1x changeover contact
KLSW-5	0.1 ... 15 m/s	2	230 V AC	2x changeover contact
KLSW-6	0.1 ... 15 m/s	2	24 V AC/DC	2x changeover contact

Mounting instruction

Mount the sensor so that airflow is passing through the cross-hole in the sensor shaft. The wire between sensor and monitoring device should not exceed 50 m.

Install the sensor to a place which meets requirements for exact measuring. There should be a straight section at least 10x diameter conduit length in front of the sensor. The sensor should not be installed in an elbow.

Make sure that the time parameters on the trimmers are properly set.

Dimensions

