SCHISCHEK
EXPLOSIONPROOF

Air Direction Relay

Air direction relay with contact output
binary sensor in hazardous locations zonen 1 and 2 **ATEX compliant** **Type WFBK-2G**

APPLICATION

WFBK-2G is suitable for monitoring of the air or non aggresive gases in air ducts. In combination with EEx-i switch Type EXL-IRU-1 with intrinsic safe circuit the sensors may be used in hazardous areas zones 1 and 2. Application area: In supply and exhaust air of ventilators or heater coils.

II2G EEx ia IIC T6
Zone 1 und 2
acc. to ATEX

TECHNICAL DATAS

Type	**WFBK-2G** Contact dust tight single potential free microswitch
Supply	see Table 1
Switch interval	≥ 1 m/s
Ambient temperature	-20...+50 °C
Storage temperature	-40...+80 °C
Measuring medium	gaseous, pressureless, not aggressive
Enclosure	Plastic, ABS reinforced, IP54
Vane	Stainless steel, V2A (1.4301)
Protection class	II2G EEx ia IIC T6, acc. to EN 50014/ EN 50020 simple apparatus
CE	94/9/EC (ATEX)
Included in price	1 Air direction relay Type WFBK-2G
Installationn area	Zone 1, 2 with switching module Type EXL-IRU-1

EEx-i CIRCUIT - TABLE 1

Operation values maximum at terminal

Voltage	Ui	15 VDC
Current	Ii	50 mA
Power	Pi	100 mW
Capacity	Ci	0 µF
Inductivity	Li	0 mH

The maximum values must not be exceeded!
Please check your external capacities and inductivities in acc. to the length of the cable and the methode of installation

MOUNTING AND INSTALLATION

The flowswitch may be installed in every posion duly orientated on stream. If pipe is vertical, reset range to balance vane weight. Put the provided gasket on the divice fixing base to pipe.

The flow switch is factory calibrated to the minum switch-off value. A higher value can be selkted by turning the adjustment screw to the right. Due to the risk of fracture at higher air speed than 5 m/s the vane must be cut of on the side where marked. As a result of this, however, the minimum switch-off value will increase from 1 m/s to 2.5 m/s. Steadying zones should be provided for a length of 5 time the diameter before and after the location of installation.

RECOMMENDED MODULE

- Switching module Mfr. Schischek Type EXL-IRU-1.
- In combination with transducer EXL-IRU-1 is intrinsic safety proof for simple circuits given.
- Manufacturer declaration zone 1 and 2.

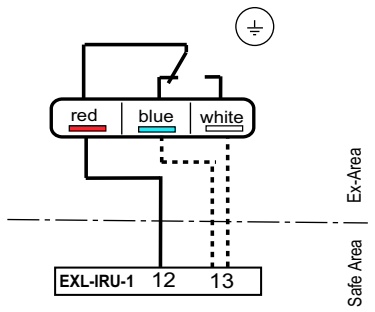
FUNCTION

Connect the red-white contacts. These contacts will open when the value drops below the set level in the event of a flow decrease. The contacts red-blue close at the same time and can be used as a signal contact.

min. cut-in value	2,5 m/s
min. cut-out value	1,0 m/s
max. cut-in value	9,2 m/s
max. cut-out value	8,0 m/s

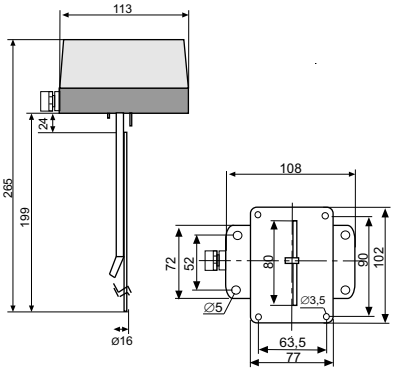
ELECTRICAL CONNECTION

Air direction Relay
WFBK-2G



EEx-i Module EXL-IRU-1

DIMENSIONS



ATTENTION!

- For installation, use and maintenance the official standards and rules must be applied.
- The energy of intrinsically safe circuits are below the level to start an explosion in case of a spark..
- Intrinsic safe circuits must be installed with light blue coloured and separate from non intrinsic safe circuits.
- The sensor is passiv and potential free for use in hazardous locations in zone 1, 2.
- Pay attention to the max values for wiring, listed in table 1.
- Avoid electrostatic discharge.
- Only wet cleaning.

Subject to change

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