

**Duct hygrostat with contact output
binary sensor in hazardous locations zones 1, 2**

**Type FBK-2G
ATEX compliant**

APPLICATION

FBK-2G is suitable for monitoring of relative humidity in non aggressive areas. In combination with Ex-i switch Type EXL-IRU-1 with intrinsic safe circuit the sensors may be used in hazardous areas zones 1 and 2.

TECHNICAL DATAS

Type	FBK-2G
Supply	by EXL-IRU-1
Contact	dust encapsulated single potential free switch
Ambient temperature	0...+65 °C
Storage temperature	0...+80 °C
Adjustment range	35...95 %r.H., non condensing
Accuracy	~4 %r.H.
Sensor sleeve	brass nickel-plated, L=220 cm
Temperature coefficient	-0,2 %r.H./K at 20°C
Response time	at V = 2 m/s, 120 s
Air speed	8 m/s
Enclosure	Plastic, PA 30 GF, IP44 (EN 60529)
Differential gap	~5 %r.H.
Dimension	135 x 70 x 74 mm
Protection class	simple apparatus acc. to EN 60079-11
CE	94/9/EC (ATEX)
Included in price	1 duct hygrostat Type FBK-2G
Installation area	Zone 1 and 2 with switching module Type EXL-IRU-1

suitable for
Zone 1, 2
acc. to ATEX



Ex-i CIRCUIT - TABLE 1

Operation values maximum at terminal

Simple apparatus suitable for Zone 1, 2

Only for connecting to intrinsically safe circuits with max values

Voltage	Uo	13,5 VDC
Current	Io	23 mA
Power	Po	76 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

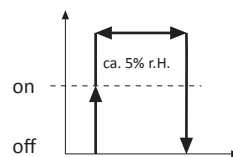
MOUNTING AND INSTALLATION

The ideal value can be select with a switch under the cover.

ELECTRICAL CONNECTION

FX = relative humidity (actual value)
FW = selcted ideal humitidity (ideal value)

Terminals 1-4 at FX > FW
Terminals 1-2 at FX < FW

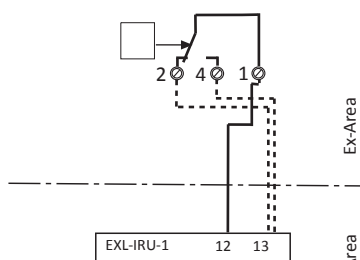


RECOMMENDED MODULE MESSUMFORMER

- 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.

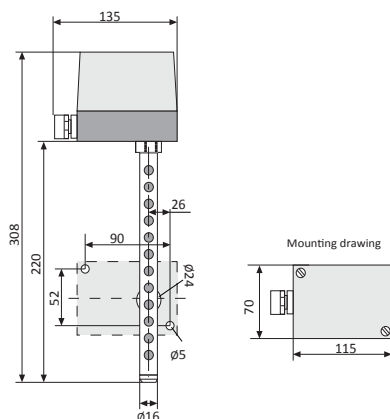
ELECTRICAL CONNECTIONS

Room hygrostat FBK-2G



Ex-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