

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

ATEX compliant

Type TBK-2G

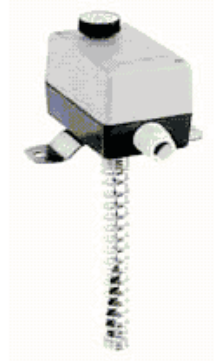
APPLICATION

TBK-2G is suitable for temperature control, limitation and regulation in non aggressive areas. 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.

TECHNICAL DATAS

Type	TBK-2G
Supply	by EXL-IRU-1
Contact	dust encapsulated single potential free switch
Ambient temperature	-20... +65 °C
Storage temperature	-30... +70 °C
Working temperature	0... 60 °C
Differential temp.	2.. 20 K
Enclosure	Plastic IP65 (EN60529), Capillary entry IP20
Dimension	108 x 70 x 98 mm
Protection class	II2G EEx ia IIC T6, acc. to EN50014 / EN50020
CE	simple apparatus
Included in price	94/9/EC (ATEX)
Installation area	1 duct thermostat Type TBK-2G Zone 1 and 2 with switching module Type EXL-IRU-1

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



EEx-i CIRCUIT - TABLE 1

Operation values maximum at terminal

Terminals		red-white-blue
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 ideal value can be adjusted with a turn switch. The differential temperature can be selected in the inner enclosure. The unit might be wall mounted any position is acceptable.

FUNCTION

Heating

Connect red - blue terminal; the contact opens while rising of the temperature. The

Cooling

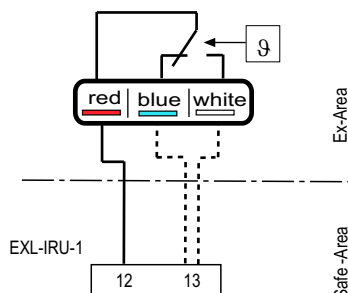
Connect red - white terminal; the contact opens while dropping of the temperature.

RECOMMENDED MODULE

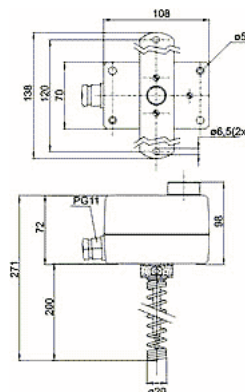
- Switching module Mfr. Schischek Type EXL-IRU-1.
- In combination with transducer EXL-IRU-1 is intrinsic safety proof for simple circuits given.
- Manufacturer declaration zone 1 and 2.

ELECTRICAL CONNECTIONS

**Room thermostat
TBK-2G**



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.