SCHISCHEK
EXPLOSIONPROOF

Room Thermostat

Room thermostat with contact output
binary sensor in hazardous locations zones 1, 2 and 22. ATEX compliant Type TBR-2G3D

II2G EEx ia IIC T6
II3D IP65 T80°C
Zone 1, 2, 22
acc. to ATEX

CE Ex

APPLICATION

TBR-2G3D 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, 2 and 22.

TECHNICAL DATAS

Type	**TBR-2G3D**
Supply	by EXL-IRU-1
Contact	dust encapsulated single potentail free switch
Ambient temperature	-20... +50 °C
Storage temperature	-20... +60 °C
Working temperature	-35... 30 °C, adjustable
Differential temp.	2... 20 K, adjustable
Enclosure	Plastic, ABS, IP65 (EN60529)
Dimension	165 x 71 x 68 mm
Protection class	II2G EEx ia IIC T6, acc. to EN50014 / EN50020
	II3D IP65 80°C, acc. to EN50281-1-1
	simple apparatus
CE	94/9/EC (ATEX)
Included in price	1 room thermostat Type TBR-2G3D
Installation area	Zone 1, 2 and 22
	with switching module Type EXL-IRU-1

EEx-i CIRCUIT - TABLE 1

Operation values maximum at terminal

Terminals		red - blue - white
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 under the cover. The differential temperature can be adjusted with a turn switch under the terminals. The unit migth be wall mounted any position is acceptable.

FUNCTION

Heating
Connect red to blue terminal; the contact opens while rising of the temperature.
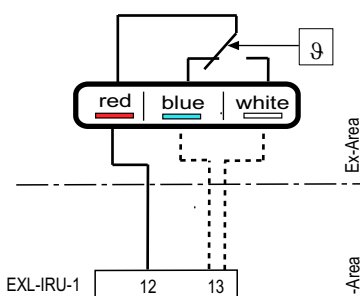
Cooling
Connect red to white terminal; the contact opens while dropping of the temperature.

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.
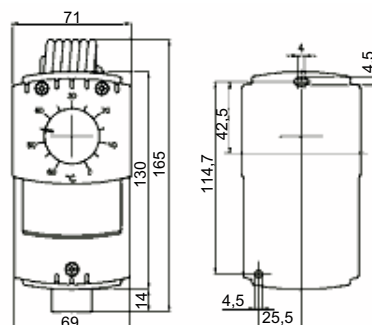- Manufacturer declaration zone 1, 2 and 22.

ELECTRICAL CONNECTIONS

Room thermostat TBR-2G3D

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 and 22.
- Pay attention to the max values for wiring, listed in table 1.
- Avoid electrostatic discharge.
- Only wet cleaning.
- After installation the protection class IP65 acc. to EN 60529 must be fulfilled.