

Room Thermostat 2-stage

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

ATEX compliant

Type TBR-2-2G

APPLICATION

TBR-2-2G 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	TBR-2-2G
Supply	by EXL-IRU-1
Contacts	2 dust encapsulated single potential free switch
Ambient temperature	-20... +65 °C
Storage temperature	-30... +80 °C
Working temperature	0... 60 °C, adjustable, (option -30... 30 °C)
Differential temp.	1 K
Differential between the stages	2... 10 K, adjustable
Enclosure	Plastic, ABS, reinforced IP54 (EN60529)
Dimension	150 x 70 x 72 mm
Protection class	II2G EEx ia IIC T6, acc. to EN50014 / EN50020 simple apparatus
CE	94/9/EC (ATEX)
Included in price	1 room thermostat Type TBR-2-2G
Installation area	Zone 1 and 2 with switching module Type EXL-IRU-1 (two necessary)

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



EEx-i CIRCUIT - TABLE 1

Operation values maximum at terminal

		red - blue - white	red - blue - white
Voltage	Ui	15 VDC	15 VDC
Current	Ii	50 mA	50 mA
Power	Pi	100 mW	100 mW
Capacity	Ci	0 µF	0 µF
Inductivity	Li	0 mH	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 might be wall mounted any position is acceptable.

FUNCTION

Heating

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

Cooling

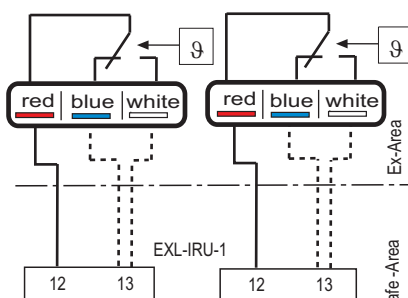
Connect red to white terminal; the contact opens while dropping of the temperature.

RECOMMENDED MODULE

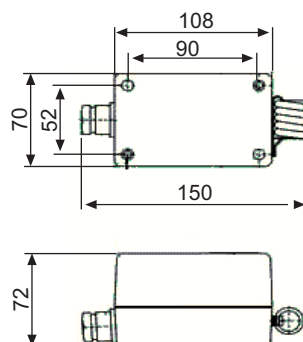
- Switching module Mfr. Schischek Type EXL-IRU-1.
- In combination with transducer EXL-IRU-1 is intrinsic safety proof for simple circuits given.
- Manufacturer declaration zone 1 and 2.

ELECTRICAL CONNECTIONS

Room thermostat TBR-2-2G



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 IS contacts are connected separately and may not connected together.
- 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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