Manufacturer-Declaration for Sensors in hazardous locations

Sensor-Type	TBK-2G	**Manufacturer**	Schischek GmbH
Function	Duct thermostat	**Property**	passive potential free
Installation in	Zone 1, 2	**Associated IS apparatus**	Type EXL-IRU-1

Test target

The sensor was tested concerning qualification for installation in hazardous locations.
Application in gas explosion proof zones 1 and 2.
Test base is the directive 94/9/EC (ATEX), applied standards are the EN 50014 and EN 50020.
The device must be connected with an intrinsically safe circuit. Suitable is the switching module Type EXL-IRU-1,
approved acc. to ATEX with II(1)GD [EEx ia] IIC. PTB02ATEX2195

Proof of intrinsic safety simple circuits in use with EXL-IRU-1

Uo	<= Ui	13,5 V	<	15V	OK	Co >= Ci + Ccable Ci = 0
Io	<= Ii	23 mA	<=	50 mA	OK	Lo >= Li + Lcable Li = 0
Po	<= Pi	76 mW	<=	100 mW	OK	Ccable, Lcable see wire manufacturer
						Co, Lo see EXL-IRU-1 Data sheet regarding gas group

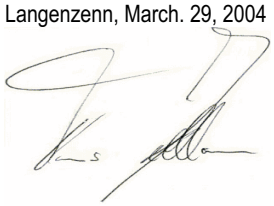
Test	Result	Conform
IP-protection class	The device fulfils min. IP20	✓
Metallic enclosure	The magnesium part is less than 6%	✓
Plastic enclosure	Suitable in ambient temperature range -20°C ... +65°C	✓
Electrostatics	In groups IIA and IIB without restrictions applicable, in group IIC observe the note "only wet cleaning"	✓
Fasteners and locking	No particular conditions, not applicable	✓
Earthing (potential equalisation)	Double isolation, no PE, PA necessary	✓
Cable- and wire entry	No particular conditions, the enclosure must meet IP20 after installation	✓
Temperature test	Together with module EXL-IRU-1. In case of fault conditions is a temperature increasing of 5K measurable.	✓

Evaluation / additional marks

The duct thermostat TBK-2G in combination with module EXL-IRU-1 is approved for use in the zone 1 and 2.
Application in gas group IIC, consider the note regarding electrostatic charge.

The tests were applied in the room of manufacturer Schischek GmbH.

Langenzenn, March. 29, 2004



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