HONSBERG INSTRUMENTS

Produktinformation

Sensors and Instrumentation

Radio Temperature Transmitter / Switch RF1-T

Battery life	depending on parameter settings, usually > 1 year
Radio frequency	868.9 MHz; < 10 mW (ISM band, no registration or fees)
Vibration resistance	max. 20 g
Ingress protection	IP 67
Conformity	CE (FTEG and directive 1999 / 5 / EC)

Dimensions

Lance shape

● **Temperature sensor with integrated radio interface for the HONSBERG RF1 radio system**
● **PT1000 sensor**
● **Energy-saving battery operation**
● **Robust stainless steel housing**
● **Operation without registration or fees (ISM band 868 MHz)**
● **Ingress protection IP 67**

Characteristics

The temperature sensors in this range measure temperatures in liquids and gases. The measured value is polled using a radio connection. If set limit values are exceeded, this can be actively notified by the sensor. To operate one or more sensors, at least one send/receive station (access point RF1-ETH or RF1-USB) is required.
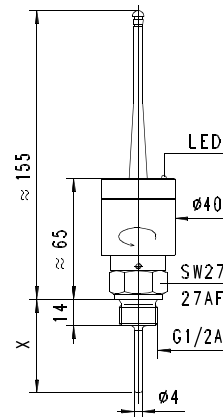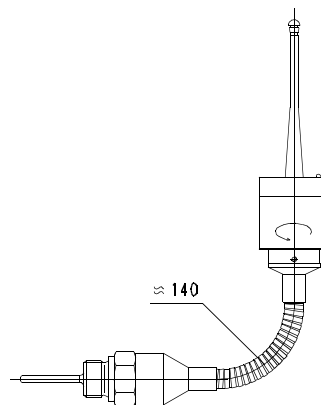The robust solid metal construction makes the sensors suitable for universal industrial use.

Lance type	Length X	Screw-in thread
..050..	50	G $\frac{1}{2}$ A
..100..	100	G $\frac{1}{2}$ A
..150..	150	G $\frac{1}{2}$ A
..200..	200	G $\frac{1}{2}$ A

"Gooseneck" option for higher temperatures

Technical data

Sensor	platinum resistance sensor	
Process connection	male thread G $\frac{1}{4}$ A.. G $\frac{1}{2}$ A, union nut G $\frac{3}{4}$ or Tri-clamp connection	
Metering ranges	0..100 °C	standard range
	0..200 °C	extended range for lance shape with gooseneck
Measurement accuracy	±0.5 K	
Reproducibility	±0.1 K	
Pressure	lance shape	PN 25
	compact construction	PN 100
Ambient temperature	-20..+70 °C	
Storage temperature	-20..+80 °C	
Materials medium-contact	stainless steel 1.4571	
Materials, non-medium-contact	stainless steel 1.4305	
Voltage supply	lithium battery 1/2 AA 3.6 V (e.g. Tadiran SL-750/S)	
Power consumption	depending on parameter settings and operating status, minimum 70 µW	

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GHM MESSTECHNIK

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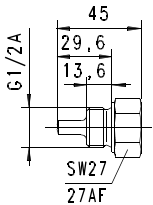
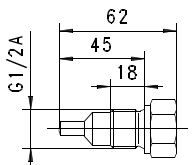**Produktinformation**   **Sensors and Instrumentation**

Compact sensor
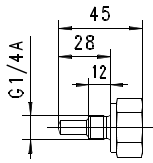
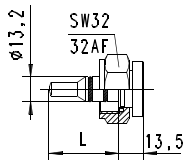Screw-in sensor G ¼ A
Type ..028..

Screw-in sensor G ½ A
Type ..029..

Screw-in sensor G ½ A
Type ..045..

Sensor with union nut for
T-piece G ³/₈..G ½
Type ..031.. (L = 31 mm)
or
T-piece G ³/₄..G 2
Type ..037.. (L = 37 mm)

Handling and operation

Note

The sensor is fitted with a yellow LED, which briefly flashes every 10 s if the battery is operational.

Installation

Sensors with screw-in threads are screwed into a T-piece or a nozzle in the pipework, using a suitable flat seal (e.g. Klingerit). Sensors with a union nut are mounted in a T-piece (see separate product information). Use only a hexagonal spanner to tighten.
It should be ensured that the sensor tip is located fully in the medium, and does not push against the wall of the pipe.

Operation and programming

If the customer desires, the sensor can be preconfigured and made ready for use, with the battery inserted. Configuration before commissioning is then unnecessary.
However, all parameters can be modified by radio using the optionally available software RF1-Control.
Modifiable parameters include:
● Measurement cycle time
● Limit values for alarm warnings
● Metering range

Thanks to the flash memory used, the firmware can also be updated by radio if necessary. Software modules can be made available by HONSBERG for customer applications; this allows the use of the whole range of functionality.
Detailed information available on request.

Changing battery

The cover of the housing is unscrewed to change the battery. The battery can be replaced without the need for additional tools. Take care when removing the lid: Do not tear off the wiring! Remove the battery from the battery holder, and replace it with a suitable battery (e.g. Tadiran Lithium SL-750/S). If the battery is connected with reversed polarity, it will be discharged, but the device will not be damaged.

Ordering code

RF1-T - [1.] [K] [3.] [4.] [5.]

Option = ❍

1.	Metering range			
	100	metering range 0..100 °C		
	200 ❍	metering range 0..200 °C		
2.	**Connection material**			
	K	stainless steel 1.4571		
3.	**Connection size**			
	008	connection G ¼ A		
	013	connection for T-piece		
	015	connection for G ½ A		
4.	**Process connection**			
	050		50 mm Ø 4 mm	● ●
	100	lance length	100 mm Ø 4 mm	● ●
	150		150 mm Ø 4 mm	● ●
	200		200 mm Ø 4 mm	● ●
	028		28 mm (G ¼ A)	●
	029	sensor length	29.6 mm (G ½ A)	●
	045		45 mm (G ½ A)	●
	031	sensor for	T-piece G ³/₈..G ½	●
	037		T-piece G ³/₄..G 2	●
5.	**Option**			
	H ❍	model with gooseneck for metering range 0..200 °C		❍ ●

Accessories

● T-piece type TS-2... Thread G ³/₈..G 2
● Cable/round plug connector (KB...)
  see additional information "Accessories"
● USB adapter RF1-USB
● Ethernet adapter RF1-ETH

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