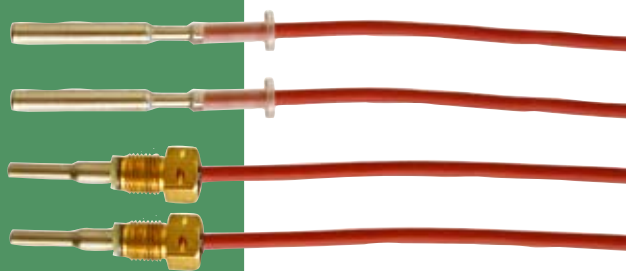


Data sheet

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## Temperature Sensors and Pockets

- For fitting in pockets or directly in liquid flow
- Heat resistant silicone cable
- Delivered as a set
- Sensor tube material, stainless steel
- Fast response time



## Application

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A sensor pair is used together with electronic energy meters for measuring the forward and backward temperatures.

Depending on the type, the sensors can be used directly in the liquid flow (direct sensor) or fitted in a sensor pocket.

The sensor has a built-in platinum resistor with an electric resistance, which changes with the temperature. Measuring the resistance value gives an analog indication of the temperature.

A heat meter calculates the differential temperature of a heating installation on the basis of measured flow and return flow temperatures. Based on the differential temperature and the volume of liquid measured, the energy consumed can then be calculated and summed up. A sensor pair is used together with electronic energy meters for measuring the forward and backward temperatures.

## Approvals

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### Heat sensor

DK-0200-MI004-036

 $\theta$ : 2...150 °C,  $\Delta\theta$ : 3...140 K

### MID designation

Mechanical environment

Class M1

## Technical data

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	Pocket sensor	Direct short sensor
Element	Pt500 according to EN60751	Pt500 according to EN60751
Pairing	EN1434	EN1434
Temperature of medium	0...150°C short-term 160°C	0...150°C short-term 160°C
Ambient temperature	-10...70°C	-10...70°C
Storage & transp. temp.	-25...70°C	-25...70°C
Response time $\tau_{0,5}$	5 sec.	2 sec.
Medium	Heating water	Heating water
Humidity	< 98% RF condensing	< 98% RF condensing
Pressure level	Tauchhülse	PN16
Diameter	ø5.8 mm	ø4/5.6 mm
Sensor tube length	47 mm	> 27.5 mm
Silicone cable	2 x 0.25 mm <sup>2</sup> , 1.5 m, 3 m, 5 m and 10 m	2 x 0.25 mm <sup>2</sup> , 1.5 m and 3 m
Sensor tube material	AISI 304, W-no. 1.4301	AISI 316 Ti, W-no. 1.4571
Protection class	IP65	IP67

## Technical data

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### Pockets

Temperature of medium	0 - 160 °C
Medium	Heating water
Response time $\tau_{0,5}$	Max. 8 s for 65 and 90 mm pocket Max. 25 s for 140 mm pocket
Pressure level	PN25
Flow velocity	Max. 3 m/s
Diameter	8 mm (14.5 mm)
Length	65, 90 and 140 mm
Connection	R $\frac{1}{2}$
Nipple and sensor tube material	65 and 90 mm – AISI 304, W-no. 1.4301 140 mm – AISI 316, W-no. 1.4571

### Change-over nipples, direct short sensor

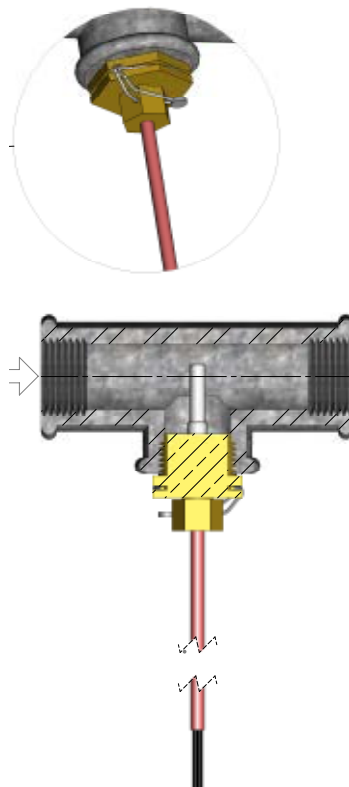
Connection	R $\frac{1}{2}$ or R $\frac{3}{4}$
Material	MS 58 pb

## Fitting examples

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### Example 1

Direct short sensor, type no. 66-00-0F0/0G0, fitted in an elbow by means of change-over nipple, type no. 65-56-491.

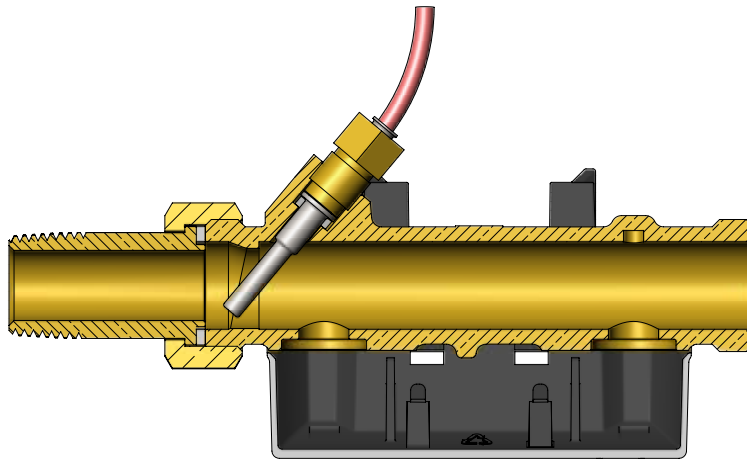


## Fitting examples

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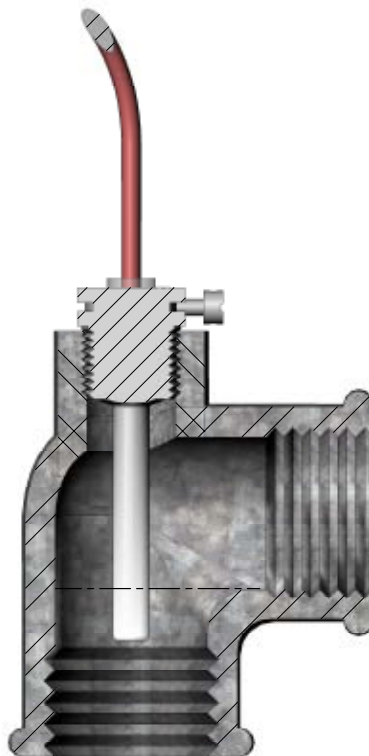
### Example 2

Direct short sensor, type no. 66-00-0F0/0G0, fitted in ULTRAFLOW®, type no. 65-5-CDAA-XXX.



### Example 3

Pocket sensor, type no. 65-00-0A0/0B0/0C0/ 0D0, fitted in an elbow by means of sensor pocket, type no. 65-57-3XX.

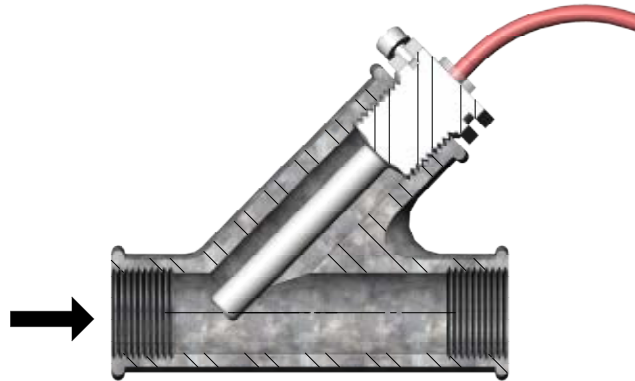


## Fitting examples

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### Example 4

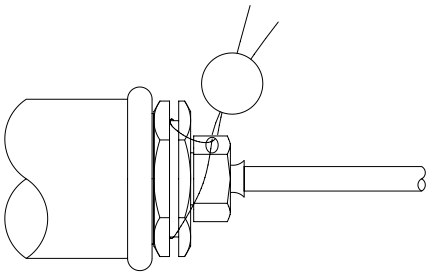
Pocket sensor, type no. 65-00-0A0/0B0/0C0/ 0D0, fitted in an elbow with 45° angle by means of sensor pocket, type no. 65-57-3XX.



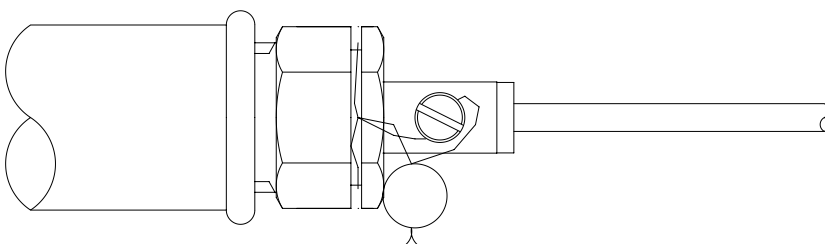
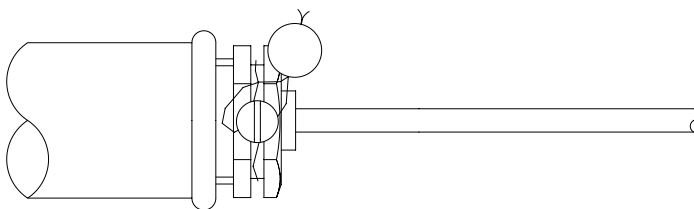
## Sealing examples

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Direct short sensor seal with change-over nipple M10 x R½.



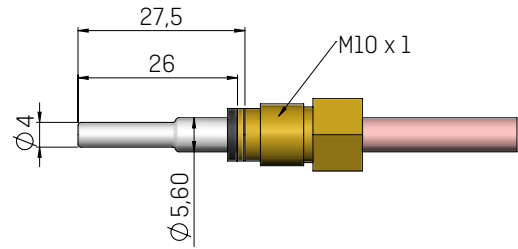
Pocket sensor seal in sensor pocket.



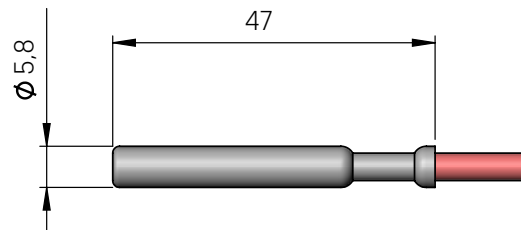
## Dimensional drawings

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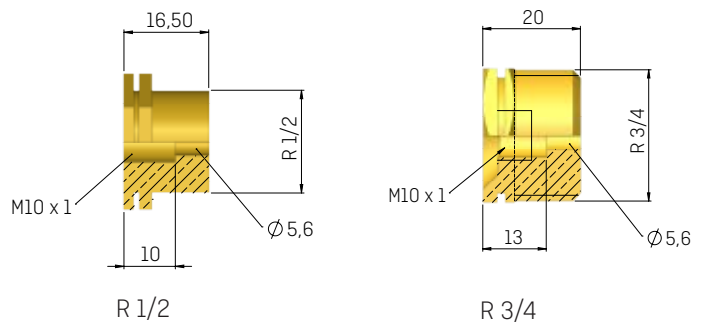
### Direct short sensor



### Pocket sensor



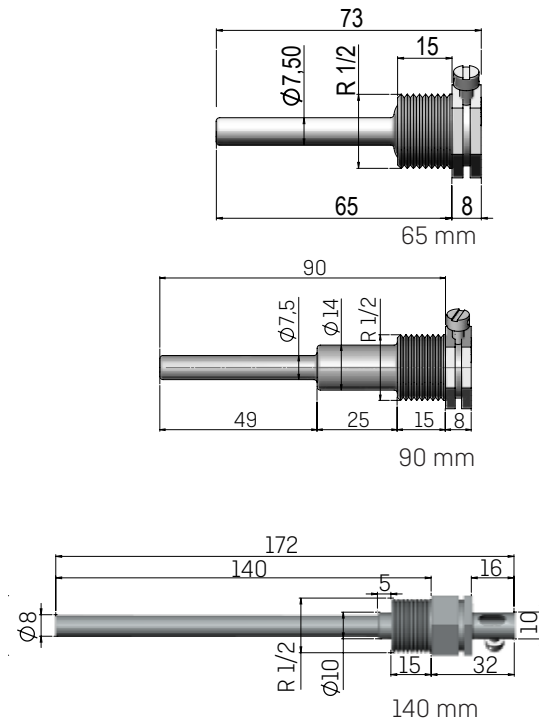
### Change-over nipples for direct short sensor



## Dimensional drawings

### Sensor pocket

R $\frac{1}{2}$  and R $\frac{3}{4}$  thread according to ISO 7.1.



## Ordering

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### Temperature sensor set

Type no.*	Description
65-00-0A0 XXX	Pt500 pocket temperature sensor set with 1.5 m cable
65-00-0B0 XXX	Pt500 pocket temperature sensor set with 3.0 m cable
65-00-0C0 XXX	Pt500 pocket temperature sensor set with 5 m cable
65-00-0D0 XXX	Pt500 pocket temperature sensor set with 10 m cable
66-00-0F0 XXX	Pt500 direct short temperature sensor set with 1.5 m cable
66-00-0G0 XXX	Pt500 direct short temperature sensor set with 3.0 m cable

\* Type numbers may vary due to local approvals

### Accessories

Type no.*	Description
65-56-491	Change-over nipple M10 - R $\frac{1}{2}$ for direct short temperature sensor
65-56-492	Change-over nipple M10 - R $\frac{3}{4}$ for direct short temperature sensor
65-57-324	Sensor pocket, length = 65 mm
65-57-327	Sensor pocket, length = 90 mm
65-57-314	Sensor pocket, length = 140 mm

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