

Data sheet

## TemperatureSensor SP

Paired temperature sensors and pockets  
for special applications within the  
measurement of heat energy



MID 2014/32/EU

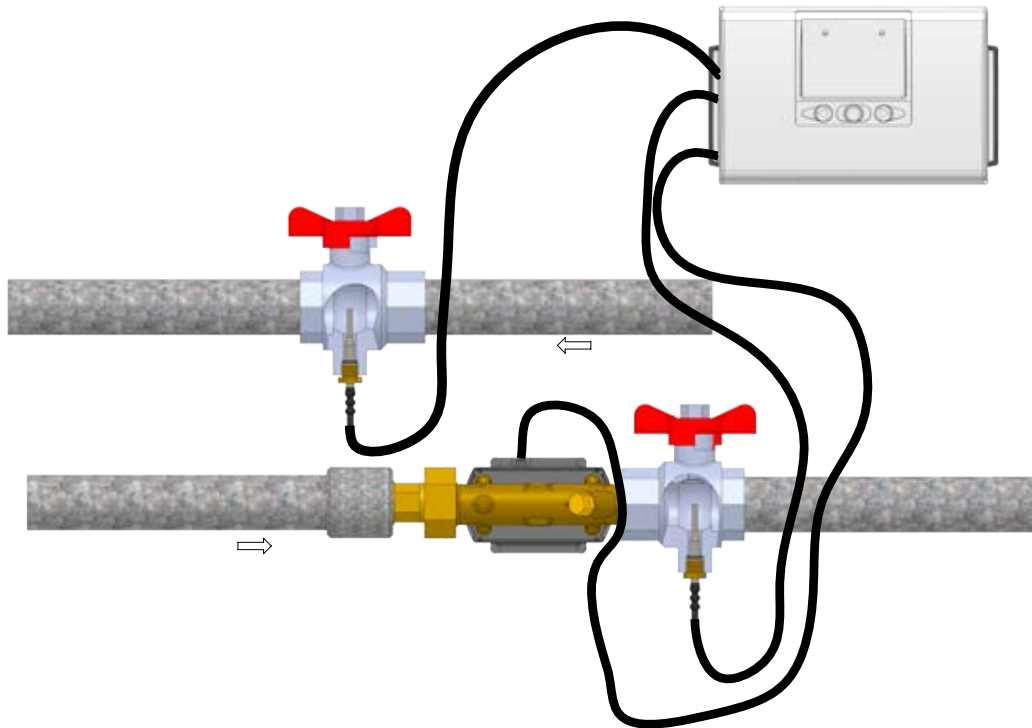


## Application

---

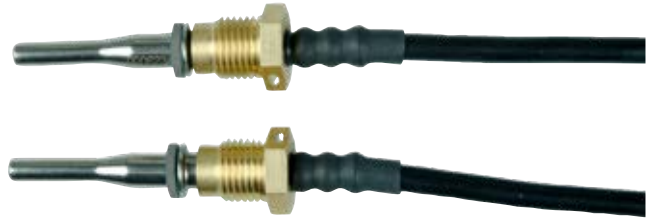
A temperature sensor pair is used together with electronic energy meters for the measurement of inlet and outlet temperatures. Depending on the type, the sensor pairs can be used directly in the fluid flow or installed in a pocket. The temperature sensor has a built-in platinum resistance of which the electrical resistance changes with temperature.

A measurement of the resistance value is thus an analog expression for the temperature. An energy meter calculates the temperature difference of a heat installation on the basis of the measurements of the inlet and outlet temperatures. The energy consumption is then calculated by using the measured temperature difference and the measurement of the quantity of flow-through water.



## Direct short sensor pair

### Direct short DS 27.5 mm



### Direct short DS 38 mm



### Facts

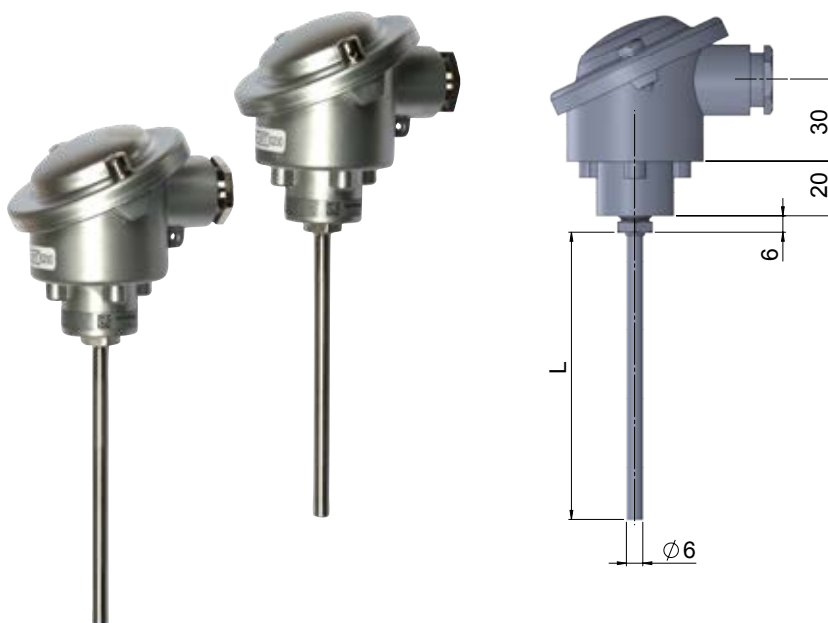
MID approval	DE-16-MI004-PTB010
Temperature ranges	$\theta$ : 0...150 °C, $\Delta\theta$ : 3...150 K
Response time, $\tau_{0.5}$	2 s
Minimum submersion depth	15 mm
Diameter	$\varnothing$ 3.6 mm / $\varnothing$ 5.4 mm
Standard	In accordance with EN 1434-2:2015
Thread	M10x1
Pressure stages	PN16, PN25
Cable	2 x 0.22 mm <sup>2</sup> silicone cable
Mechanical class	M1, M2
Ambient temperature	0...55 °C
IP class	IP65

### Overview of variants

Type number	Pt100/Pt500	Description	Cable length
61-63-G0-021-220	Pt500	Direct short DS 38 mm	1.5 m
61-63-G0-022-220	Pt500	Direct short DS 38 mm	3 m
63-63-E0-0J6-220	Pt100	Direct short DS 27.5 mm	2 m

The temperature sensors can be ordered separately via top number 61XXXXXXXX.

## ø6 mm 4-wire temperature sensors with connection head



### Facts

MID approval	DE-17-MI004-PTB004
Temperature ranges	$\theta$ : 0...180 °C, $\Delta\theta$ : 3...150 K
Response time, $\tau_{0,5}$	In a standard EN 1434 pocket: 12 s In a reinforced EN 1434 pocket: 16 s
Nominal diameter	ø6 mm
Standard	In accordance with EN 1434-2:2015
Pressure stages	With standard pockets: PN16, PN25 With reinforced pockets: PN16, PN25, PN40
Connection head	DIN Form B
Mechanical class	M1, M2
Ambient temperature	5...85 °C
IP class	IP65

### Overview of variants

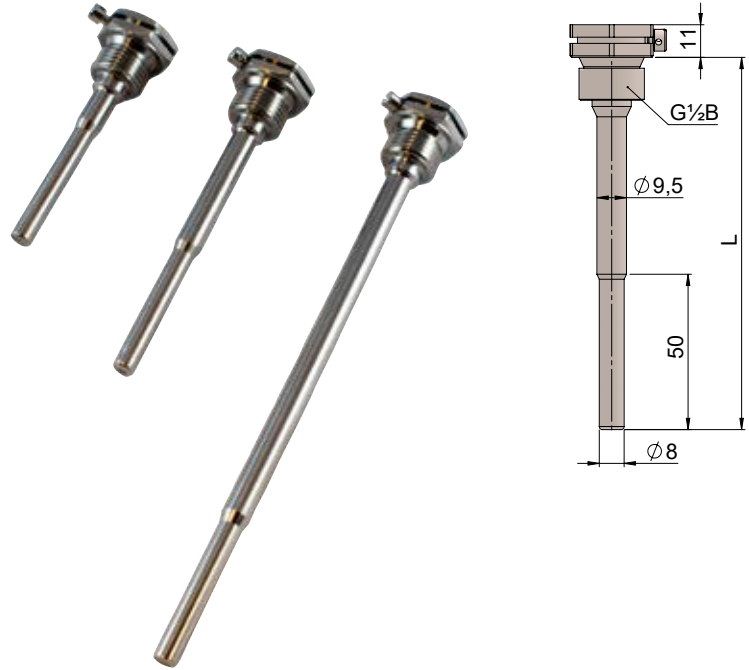
Type number	Pt100/Pt500	Length of temperature sensor L	Length of matching pocket
61-83-E0-0A1-216	Pt100	105 mm	85 mm
61-83-E0-0A2-216	Pt100	140 mm	120 mm
61-83-E0-0A3-216	Pt100	230 mm	210 mm
61-83-G0-0A4-216	Pt500	105 mm	85 mm
61-83-G0-0A5-216	Pt500	140 mm	120 mm
61-83-G0-0A6-216	Pt500	230 mm	210 mm

The temperature sensors can be ordered separately via top number 61XXXXXXXXX.

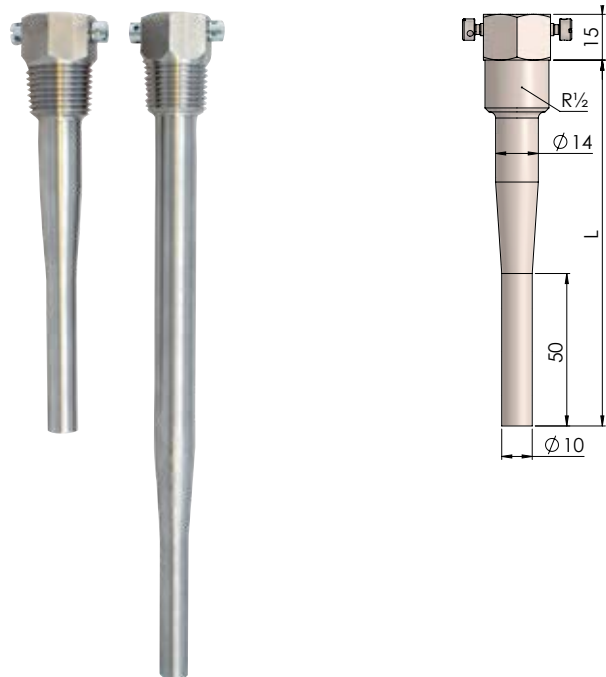
## Pockets for $\varnothing 6$ mm 4-wire temperature sensors with connection head

---

### Standard EN 1434 pockets with $G\frac{1}{2}$ thread

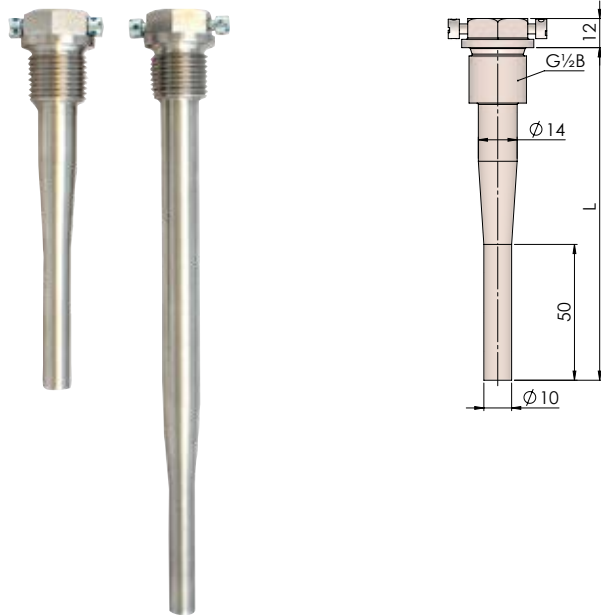


### Reinforced EN 1434 pockets with $R\frac{1}{2}$ thread



## Pockets for ø6 mm 4-wire temperature sensors with connection head

### Reinforced EN 1434 pockets with G½ thread



#### Facts

MID approval	DK-0200-MI004-036
Temperature range	θ: 0...180 °C
Nominal diameter inside	ø6 mm
Standard	In accordance with EN 1434-2:2015
Gasket for pockets with G½ thread	2 copper gaskets are supplied in bag with 2 pockets
Pressure stages	Standard EN 1434 pockets: PN16, PN25 Reinforced EN 1434 pockets: PN16, PN25, PN40
Material	AISI 316L / W-no. 1.4404
Max. flow rate	Standard EN 1434 pockets: 3 m/s Reinforced EN 1434 pockets: 10 m/s
Construction	Standard EN 1434 pockets: Welded pocket Reinforced EN 1434 pockets: Machined out of one piece

#### Overview of variants

Type number in approval	Installation length L	Pocket type	Thread	Article number of bag with 2 pcs.
6557-343	85 mm	Standard EN 1434 pockets	G½	6557-443
6557-344	120 mm			6557-444
6557-345	210 mm			6557-445
6557-350	120 mm	Reinforced EN 1434 pockets	R½	6557-450
6557-351	210 mm			6557-451
6557-352	120 mm		G½	6557-452
6557-353	210 mm			6557-453

## Further accessories

---

6556491	R½ nipple for direct short temperature sensors
6556492	R¾ nipple for direct short temperature sensors
6561330	11 mm adapter with O-ring for DS 38 mm temperature sensor
5920146	4-wire silicone cable, 2 x 10 m

---

**Kamstrup A/S**

Industrivej 28, Stilling  
DK-8660 Skanderborg  
T: +45 89 93 10 00  
F: +45 89 93 10 01  
info@kamstrup.com  
kamstrup.com