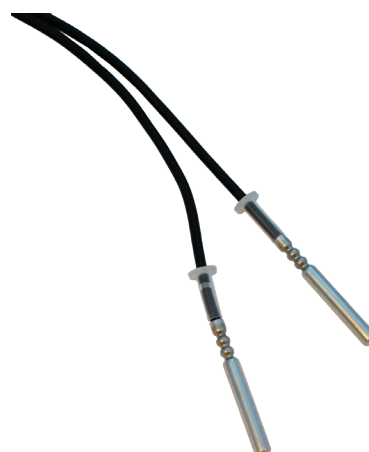


Data sheet

TemperatureSensor 63

2-wire temperature sensors for use with heat and cooling meters

- Delivered as a set of two paired temperature sensors
- Easy installation and exchange
- Fast response to temperature changes
- High water resistance (IP68)
- Support of temperature offset adjustment



MID 2014/32/EU



EN 1434

DK-BEK 1178 - 06/11/2014



EN 1434

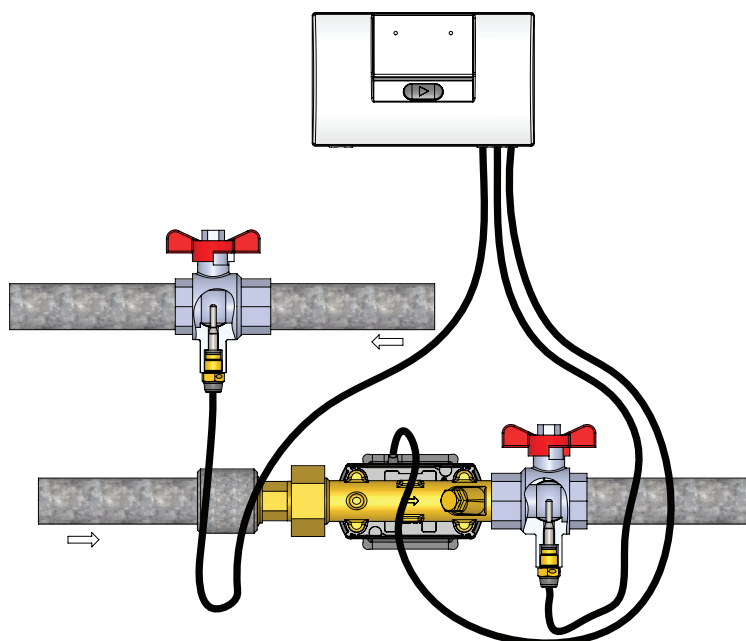
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Application

Kamstrup TemperatureSensor 63 consists of two paired temperature sensors and is used together with electronic energy meters for measuring the inlet and outlet temperatures. The temperature sensors have built-in Pt500 platinum resistors of which the electric resistance changes according to the temperature. A measurement of the resistance value thus provides an analogue expression of the temperature.

Kamstrup TemperatureSensor 63 has a very broad selection of temperature sensor types and thus fits most heat or cooling installations. Kamstrup TemperatureSensor 63 is approved for IP68 and is thus especially suited to be used for both heat and cooling measurements.



Approval and verification

MID approval DK-0200-MI004-046

Temperature range θ : 2...150 °C
Temperature difference $\Delta\theta$: 3...140 K

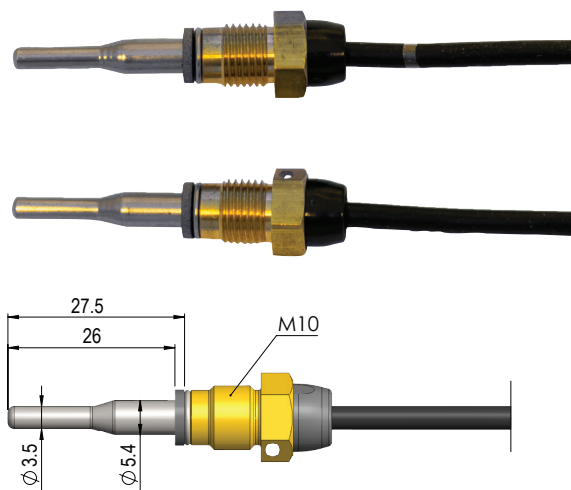
Danish cooling approval TS 27.02 017

Temperature range θ : 2...150 °C
Temperature difference $\Delta\theta$: 3...140 K

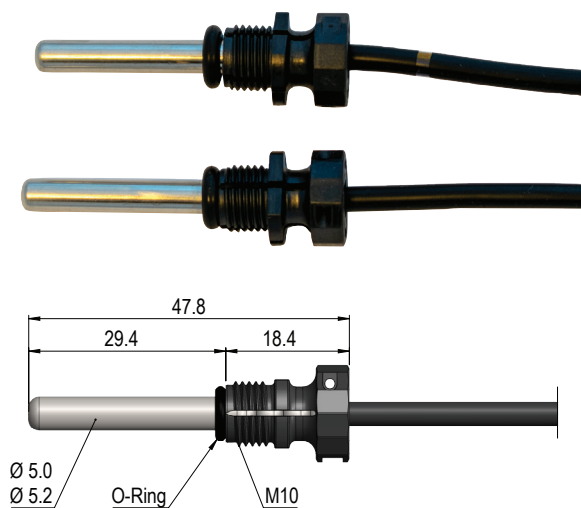
Pairing and verification according to EN1434-5.

Temperature sensors

Direct short 27.5 mm temperature sensor according to EN 1434-2:2022 (PTB TR-K 8, Version 10/2025; AGFW FW 202:2017)



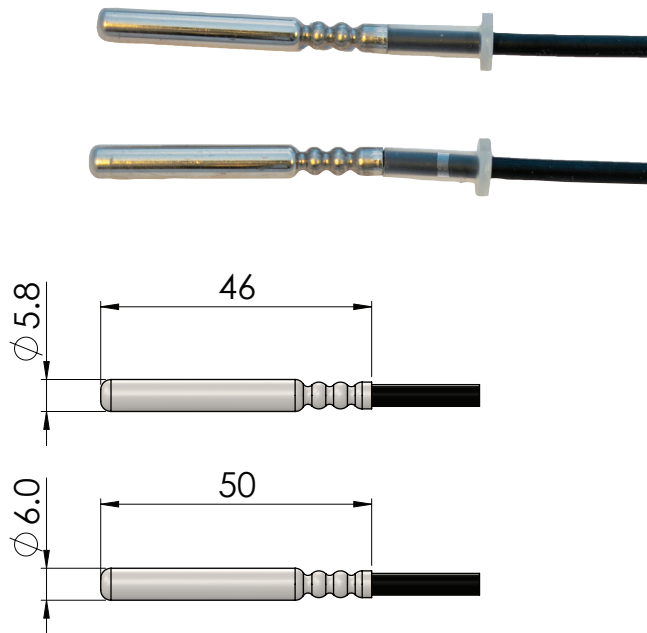
$\varnothing 5.0$ mm/ $\varnothing 5.2$ mm (PTB TR K8, TR-K 8, Version 10/2025; AGFW FW 202:2017) temperature sensors



Temperature sensors

ø5.8 mm/ø6.0 mm temperature sensors

ø6.0 mm temperature sensors according to EN 1434-2:2022, pocket sensor type PL (PTB TR-K 8, Version 10/2025; AGFW FW 202:2017). For use in EN 1434 pockets.

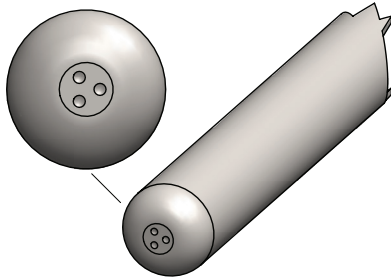


Technical data

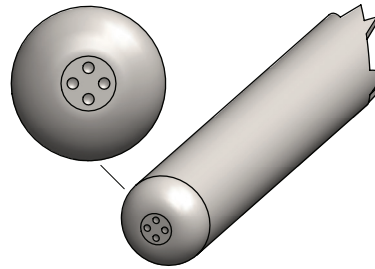
	Direct short 27.5 mm temperature sensor	ø5.0 mm temperature sensor/ ø5.2 mm temperature sensor	ø5.8 mm temperature sensor/ ø6.0 mm temperature sensor
Component	Pt500 according to EN60751		
Time constant $\tau_{0.5}$	2 s	3 s	4 s
Minimum submersion depth	15 mm	17 mm	18 mm
Sensor pipe material	AISI 316L W-no. 1.4404		
Silicone cable	2 x 0.22 mm ²		
Cable lengths	1.5 m, 3 m	1.5 m, 3 m, 5 m, 10 m	

Identification of the diameter of pocket sensors

ø5.8 mm



ø6.0 mm

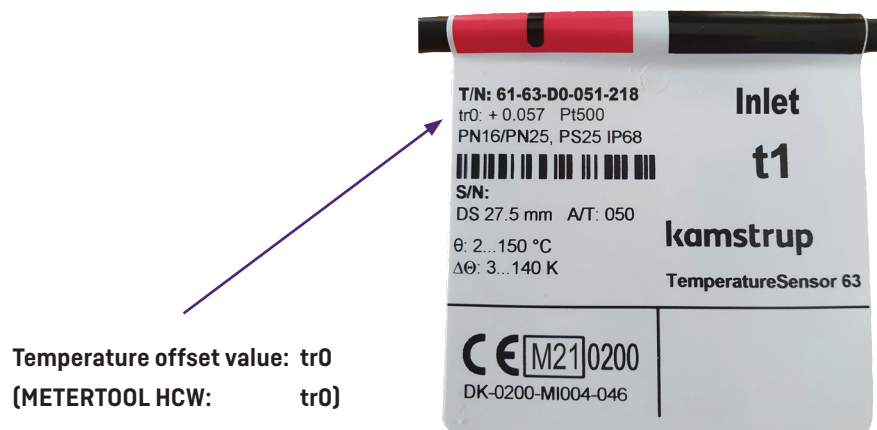


Temperature sensor application area

Ambient temperature	-10 °C...70 °C
Storage and transport temperatures	-25 °C...70 °C
Medium	District heating water
Medium temperature	0...150 °C, for a short period 160 °C
Humidity	< 98 % rF condensing
IP class	IP 68
Approved mechanical classes	M1, M2
Approved pressure stages for direct short temperature sensor	PN16/PN25, PS25
Approved pressure stages for direct short \varnothing 5.0 mm/ \varnothing 5.2 mm temperature sensor with composite union nut	PN16/PN25, PS25

Optimise the accuracy of inlet and outlet temperatures through offset adjustment

The heat/cooling meters MULTICAL® 303, MULTICAL® 403, MULTICAL® 603 and MULTICAL® 803 have an offset adjustment function that enables the adjustment of the inlet and outlet temperatures by up to ± 0.99 K. The offset adjustment value is determined in connection with the factory calibration of Kamstrup TemperatureSensor 63, and when this value is embedded in the meter, the deviation of the inlet and outlet temperatures will typically be less than ± 0.1 K. As both the inlet and outlet temperatures are adjusted with the same value, the offset adjustment does not influence the calculation of the consumed energy.





Pockets for $\varnothing 5.8$ mm temperature sensors



Technical data

Installation lengths	65 mm, 90 mm, 140 mm
Thread	Conical thread R $\frac{1}{2}$
Material	AISI 304/W.-no. 1.4301
Time constant $\tau_{0.5}$	Max 8 s
Type number in approval	65 mm pocket: 6557-340 90 mm pocket: 6557-341 140 mm pocket: 6557-342
Sealing screw:	3219-323
Pressure stage	PN16/PN25, PS25
Maximum flow velocity	3 m/s
Maximum application temperature	150 °C
Approved mechanical classes	M1, M2

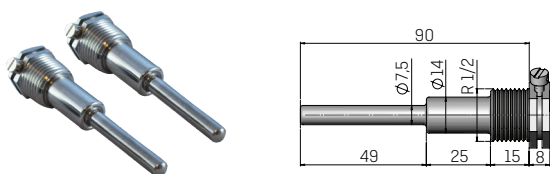
Installed pockets in the field

$\varnothing 5.8$ mm temperature sensors are also approved together with the following pockets in the field:

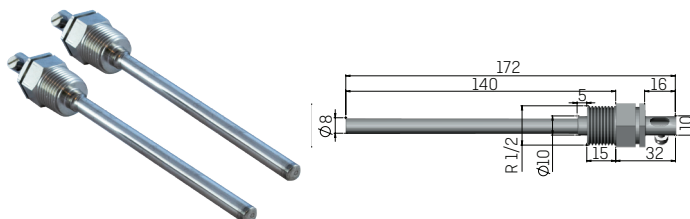
- 6557-324, Stainless steel pocket, 65 mm with R1/2 connection
- 6557-325, Stainless steel pocket, 65 mm with G1/2B connection
- 6557-327, Stainless steel pocket, 90 mm with R1/2 connection
- 6557-328, Stainless steel pocket, 90 mm with G1/2B connection
- 6557-309, Stainless steel pocket, 90 mm with R1/2 connection
- 6557-314, Stainless steel pocket, 140 mm with R1/2 connection

Examples

6557-327



6557-314





EN 1434 pockets for $\varnothing 5.8$ mm/ $\varnothing 6.0$ mm temperature sensors

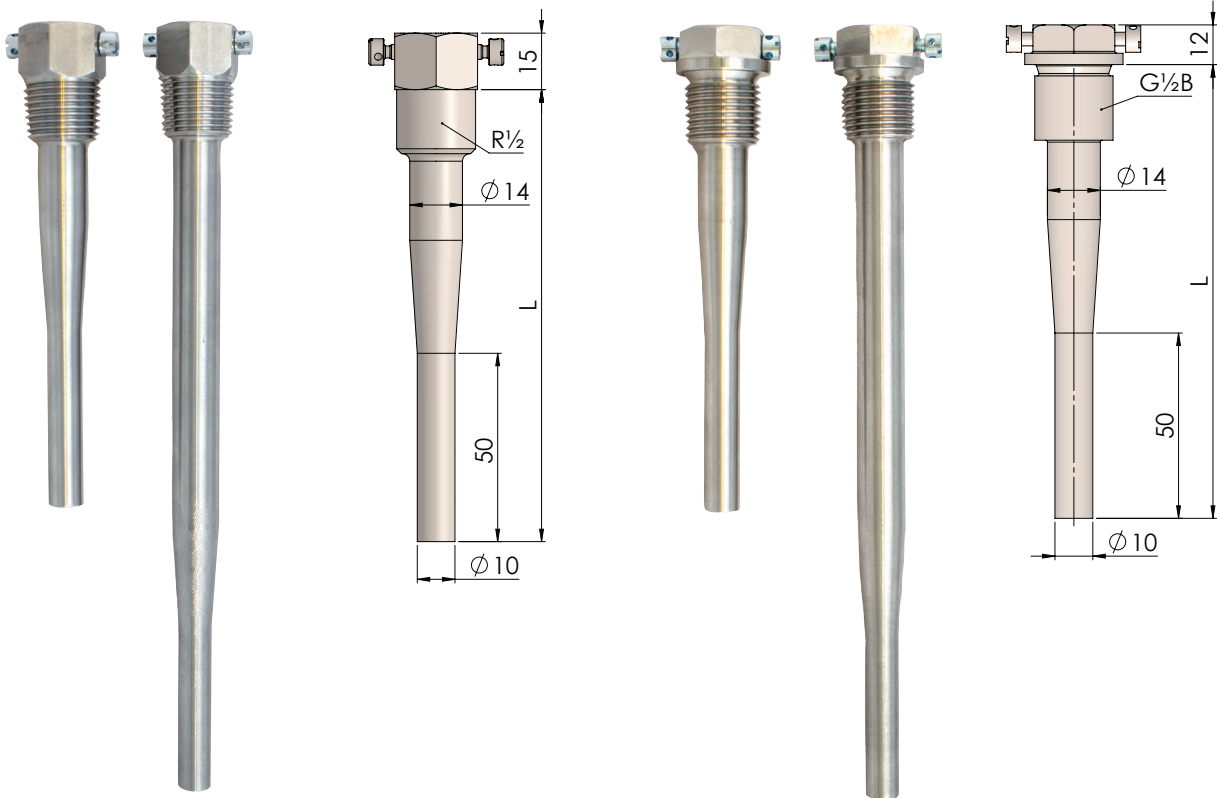


Technical data

Installation lengths L	65 mm, 85 mm, 120 mm, 210 mm
Thread	Straight thread G $\frac{1}{2}$ B
Gasket	Copper gasket (included in bag with 2 pockets)
Material	AISI 316L/W.-no. 1.4404
Time constant $\tau_{0.5}$	Max 10 s with $\varnothing 6.0$ mm temperature sensor Max 14 s med $\varnothing 5.8$ mm temperature sensor
Type number in approval	65 mm pocket: 6557-355 85 mm pocket: 6557-343 120 mm pocket: 6557-344 210 mm pocket: 6557-345
Sealing screw	3219-324
Pressure stage	PN16/PN25, PS25
Maximum flow velocity	3 m/s
Maximum application temperature	150 °C
Approved mechanical classes	M1, M2



EN 1434 reinforced pockets for $\varnothing 5.8$ mm/ $\varnothing 6.0$ mm temperature sensors



Technical data

Installation lengths	120 mm, 210 mm
Thread	Conical thread $R\frac{1}{2}$ or straight thread $G\frac{1}{2}B$
Gasket for pockets with straight threads $G\frac{1}{2}B$	Copper gasket (included in bag with 2 pockets)
Material	AISI 316L/W.-No. 1.4404
Time constant $\tau_{0,5}$	Max 12 s with $\varnothing 6.0$ mm temperature sensor Max 16 s med $\varnothing 5.8$ mm temperature sensor
Type number in approval	120 mm pockets with $R\frac{1}{2}$ thread: 6557-350 210 mm pockets with $R\frac{1}{2}$ thread: 6557-351 120 mm pockets with $G\frac{1}{2}B$ thread: 6557-352 210 mm pockets with $G\frac{1}{2}B$ thread: 6557-353
Sealing screw	3219-323
Pressure stage	PN16/PN25/PN40, PS40
Maximum flow velocity	10 m/s
Maximum application temperature	180 °C
Approved mechanical classes	M1, M2

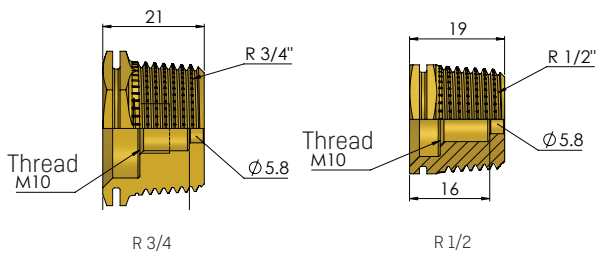
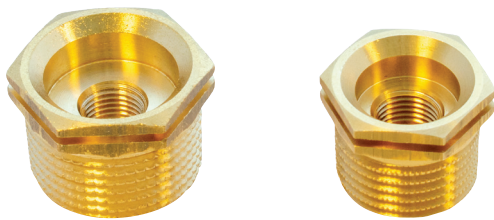
Accessories

Nipples

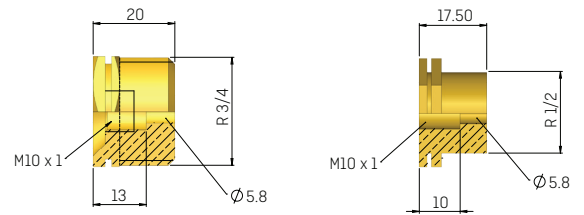
Technical data

Connection R½ or R¾
 Material MS 58 Bb
 Nipples may be used in both PN16 and PN25 installations.

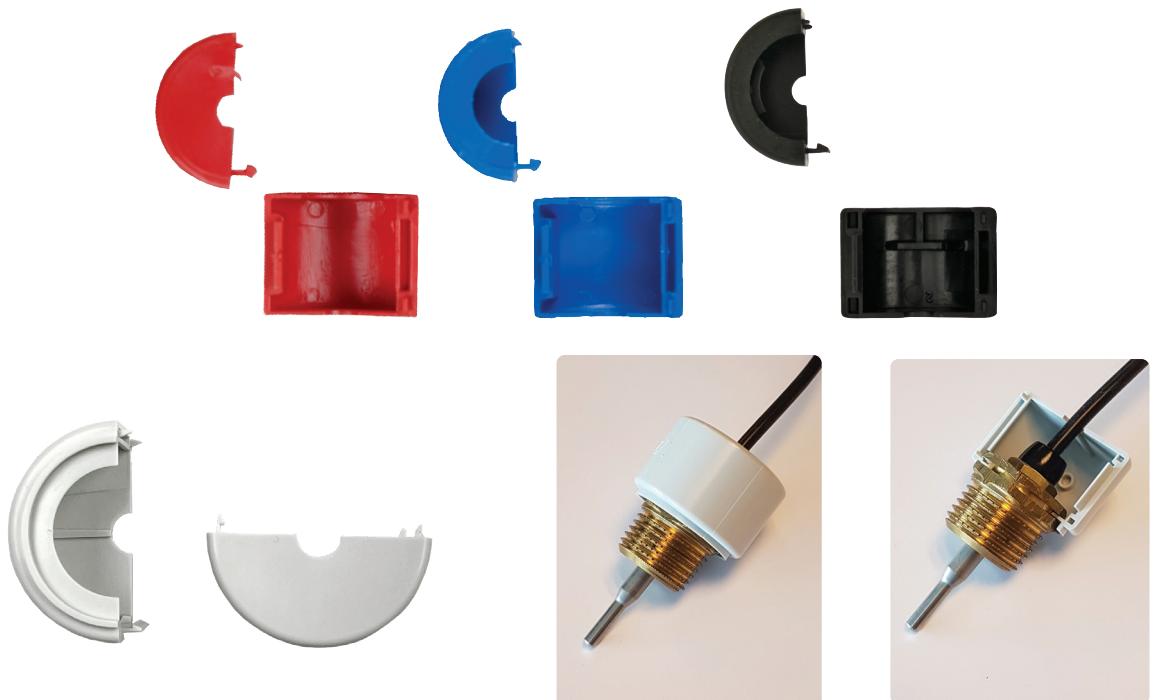
Nipples with increased submersion depth



Nipples suited for use with sealing caps



Sealing caps



Sealing caps available for ½" and for ¾".

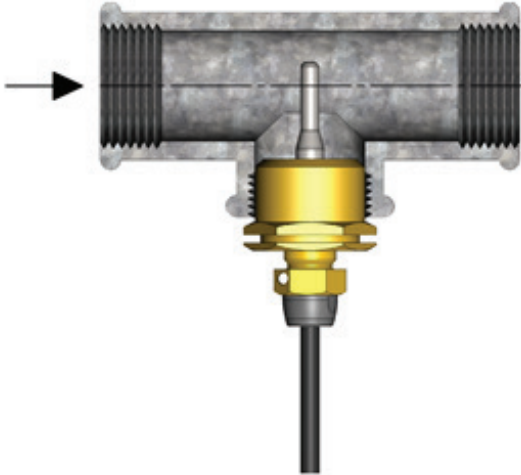
Installation tool



Mounting examples

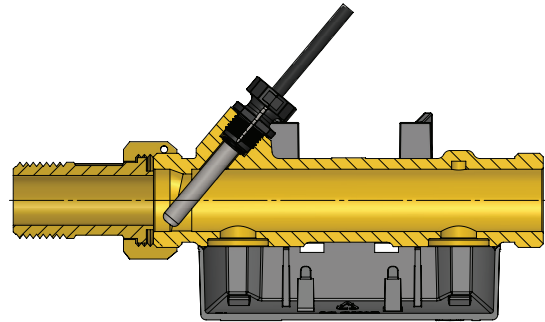
Example 1

Direct short temperature sensor mounted in T-piece using a nipple



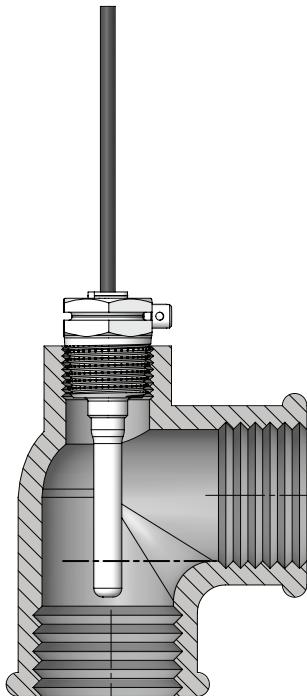
Example 2

ø5.2 mm temperature sensor mounted in MULTICAL® 303

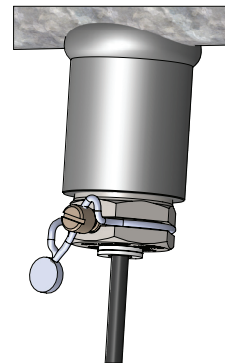
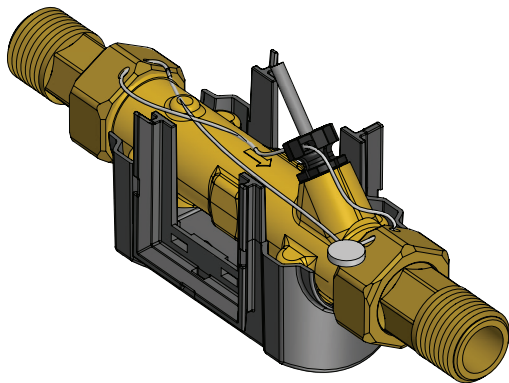
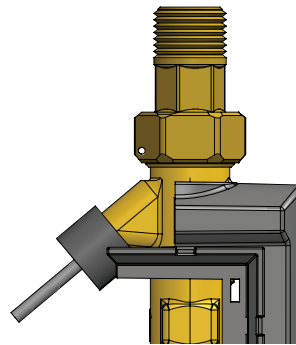
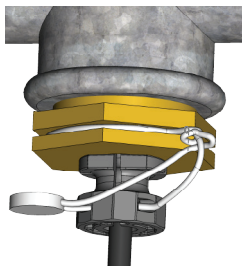
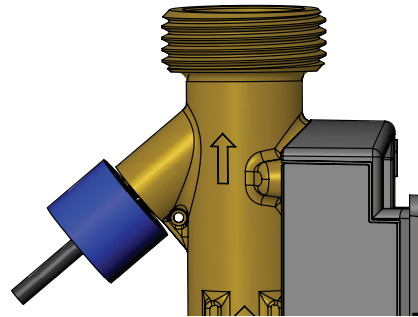
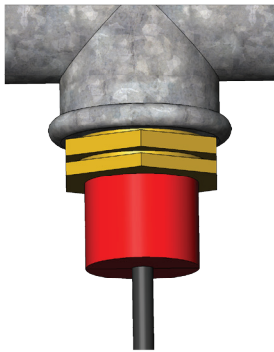
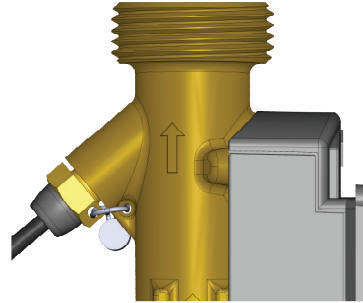
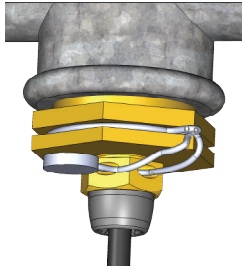


Example 3

ø5.8 mm pocket sensor mounted in 90°-angle using pocket, type number 6557-340



Sealing examples



Ordering

Temperature sensor set

Order number *	Description
61-63-D0-051-XXX	Pt500 direct short 27.5 mm temperature sensor set (2 pcs) with 1.5 m cable
61-63-D0-052-XXX	Pt500 direct short 27.5 mm temperature sensor set (2 pcs) with 3 m cable
61-63-D0-061-XXX	Pt500 \varnothing 5.0 mm direct short temperature sensor set (2 pcs) with 1.5 m cable
61-63-D0-062-XXX	Pt500 \varnothing 5.0 mm direct short temperature sensor set (2 pcs) with 3 m cable
61-63-D0-071-XXX	Pt500 \varnothing 5.2 mm direct short temperature sensor set (2 pcs) with 1.5 m cable
61-63-D0-072-XXX	Pt500 \varnothing 5.2 mm direct short temperature sensor set (2 pcs) with 3 m cable
61-63-D0-073-XXX	Pt500 \varnothing 5.2 mm direct short temperature sensor set (2 pcs) with 5 m cable
61-63-D0-081-XXX	Pt500 \varnothing 5.8 mm pocket sensor set (2 pcs) with 1.5 m cable
61-63-D0-082-XXX	Pt500 \varnothing 5.8 mm pocket sensor set (2 pcs) with 3 m cable
61-63-D0-083-XXX	Pt500 \varnothing 5.8 mm pocket sensor set (2 pcs) with 5 m cable
61-63-D0-084-XXX	Pt500 \varnothing 5.8 mm pocket sensor set (2 pcs) with 10 m cable
61-63-D0-091-XXX	Pt500 \varnothing 6.0 mm pocket sensor set (2 pcs) with 1.5 m cable
61-63-D0-092-XXX	Pt500 \varnothing 6.0 mm pocket sensor set (2 pcs) with 3 m cable
61-63-D0-093-XXX	Pt500 \varnothing 6.0 mm pocket sensor set (2 pcs) with 5 m cable
61-63-D0-094-XXX	Pt500 \varnothing 6.0 mm pocket sensor set (2 pcs) with 10 m cable

* The order number may vary due to local approvals

Pockets for pocket sensors

Order number	Description	Type number for pocket
6557-440	Bag with 2 pcs of \varnothing 5.8 mm pockets with R $\frac{1}{2}$ thread, length 65 mm	6557-340
6557-441	Bag with 2 pcs of \varnothing 5.8 mm pockets with R $\frac{1}{2}$ thread, length 90 mm	6557-341
6557-442	Bag with 2 pcs of \varnothing 5.8 mm pockets with R $\frac{1}{2}$ thread, length 140 mm	6557-342
6557-455	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm pockets with G $\frac{1}{2}$ B thread, length 65 mm	6557-355
6557-443	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm pockets with G $\frac{1}{2}$ B thread, length 85 mm	6557-343
6557-444	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm pockets with G $\frac{1}{2}$ B thread, length 120 mm	6557-344
6557-445	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm pockets with G $\frac{1}{2}$ B thread, length 210 mm	6557-345
6557-450	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm reinforced pockets with R $\frac{1}{2}$ thread, length 120 mm	6557-350
6557-451	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm reinforced pockets with R $\frac{1}{2}$ thread, length 210 mm	6557-351
6557-452	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm reinforced pockets with G $\frac{1}{2}$ B thread, length 120 mm	6557-352
6557-453	Bag with 2 pcs of \varnothing 5.8 mm/ \varnothing 6.0 mm reinforced pockets with G $\frac{1}{2}$ B thread, length 210 mm	6557-353

Ordering

Accessories

Order number Description

6556-546	R½ distance nipple for direct short temperature sensor, increased submersion depth
6556-547	R¾ distance nipple for direct short temperature sensor, increased submersion depth
6556-492	R¾ distance nipple for direct short temperature sensor, suited for use with sealing cap
6556-491	R½ distance nipple for direct short temperature sensor, suited for use with sealing cap
2210-233	Fibre gasket for direct short temperature sensor
3026-517	Sealing cap, red, for direct short temperature sensor
3026-518	Sealing cap, blue, for direct short temperature sensor
3026-1034	Sealing cap, black, for ø5.0 mm/ø5.2 mm direct temperature sensors
3024-835	Installation key for direct short temperature sensor
3026-1330	Sealing cap, grey, for ½"
3026-1331	Sealing cap, grey, for ¾"
3130-288	Bag with 2 pcs of O-rings, 2 pcs of washers and 1 pc of mounting tool
3130-291	50 pcs of washers for ø5.0 mm/ø5.2 mm temperature sensor
6699-052	20 pcs of composite unions for ø5.0 mm/ø5.2 mm temperature sensor
6699-053	20 pcs of O-rings for ø5.0 mm/ø5.2 mm temperature sensor

Order number	Description	Type number for pocket
3219-323	Sealing screw for ø5.8 mm	
	65 mm pocket	6557-340
	90 mm pocket	6557-341
	140 mm pocket	6557-342
3219-323	Sealing screw for EN 1434 ø5.8/ø6.0 mm reinforced	
	120 mm (R1/2) pocket	6557-350
	210 mm (R1/2) pocket	6557-351
	120 mm (G1/2B) pocket	6557-352
	210 mm (G1/2B) pocket	6557-353
3219-324	Sealing screw for EN 1434 ø5.8/ø6.0 mm	
	65 mm pocket	6557-355
	85 mm pocket	6557-343
	120 mm pocket	6557-344
	210 mm pocket	6557-345
3130-108	Sealing screw for 65 mm pocket, old version	6557-324
3130-108	Sealing screw for 90 mm pocket, old version	6557-327

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