

SVM type TD/TL

Temperature sensors

[Data sheet](#)

TD/TL temperature sensors

The sensor is constructed for district heating and consists of a small Pt100 or Pt500 resistor, enclosed in a metal shield. Because of the small thermal mass the response time is extremely short. The sensors are designed according to European standard for heat meters, EN1434. The sensors can withstand the pressure up to 16 [bar]

The sensors can be delivered paired to a difference less than 0.05 [°C]. The meridian value for final inspection is 0.02 [°C]. They are designed to have a good thermal contact between the measuring elements and the streaming water giving a high accuracy and short response time. Test certificates can be supplied for delivery of more than 25 pairs of sensors.

The sensors are delivered, as standard, with a 2 [m] temperature resistant cable. They can be mounted in a flow sensor or in ball valves or T-tubes. Two types of sensors:

TD – Direct mounting

Sensors designed for direct mounting in the flow (TD).

TL – For pocket mounting

Sensors designed to be mounting in pockets (TL). The pocket has standardized R $\frac{1}{2}$ " external connection thread and is made of stainless steel to suit all applications.

Features

- Extremely fast response time, because of very small thermal mass.
- PT100 or PT500, available
- 2-wire connection
- Constructed according EN1434
- Several different versions to suit your installation
- Pressure up to 16 [bar]
- Material sensor tube; Inconel

Mounting

It is strongly recommended that the pair of sensors are mounted in identical way. Ball valves offer the possibility to exchange the sensors without big loss of water.

TD – Direct mounting

We recommended using a T-pieces or ball valves alternatively. The equality in mounting and performance will support the accuracy in measurement of temperature difference. The installation must be properly sealed.

TL – For pocket mounting

Important! Heat conductive paste must be applied when installing sensor in pocket.

TDA26

TDA26 is a sensor 26 [mm] for direct immersion.

Technical data / approvals TDA26

Sensor type	Pt100/Pt500
Resistance acc. to	IEC751
Max RMS sensor current	8 [mA]
Measuring range	0 - 140 [°C]
Tolerance	Class B
Temp. difference	2 - 100 [°C]
Temp. Step response	1.8 [s]
Min. immersion depth	20 [mm]
Pressure	PN16
Dimensions	
Diameter	3.5 [mm]
Length	26 [mm]
Resistance (2-wire cable)	0,2955 [Ω]
Cable length	2 [m]
Cable type	Silicone, PUR or PVC
Swedish SP	SP WT 98:01 P 15 42 02
German PTB	22.70/99.06

Dimensions TDA26

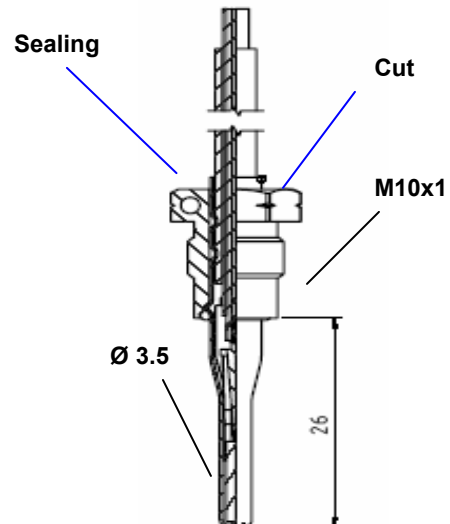
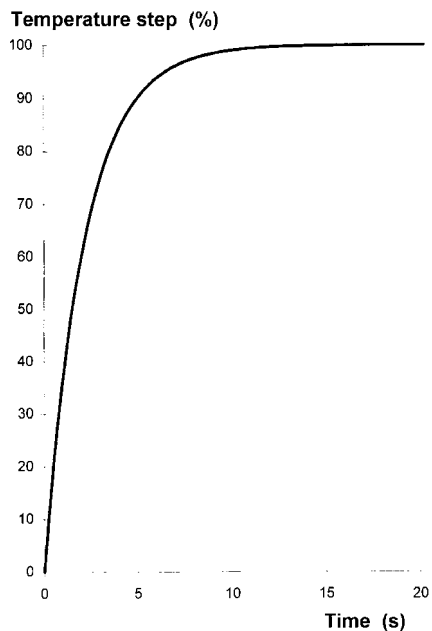


Fig. 2, TDA26 Dimensions
Only TDA26 with a cut in the screw can be used in V700 and F27 flow parts.

Thermal response TDA26



Ordering TDA26

By combining the correct letters in the table below the correct article number is acquired.

TDA26 BCDEF GH

B	C	Pt100
B	D	Pt500
C	C	Cable straight, max. 140 [°C]
C	S	Cable spiral, max. 90 [°C]
D	15	Cable length 1.5 [m]
D	20	Cable length 2 [m]
E	X	Cable material, PVC max 90 [°C]
E	Y	Cable material, Silicone max 180 [°C]
E	Z	Cable material, PUR max 90 [°C]
F	C	Paired sensors, 0-90 [°C]
F	N	Paired sensors, 20-140 [°C]
F	T	Paired sensors, 0-140 [°C]
F	U	Unpaired sensors
G	#	Country code
H	0	Standard
H	S	Special, information enclosed with order

Accessories

Valves and T-pieces, PN16

Material, Chromium plated brass
Thread; M10 x 1 internal

TT15B	T-piece BSP 1/2", 56 [mm]
TT20B	T-piece BSP 3/4", 64 [mm]
TV15B	Ball valve BSP 1/2", 63 [mm]
TV20B	Ball valve BSP 3/4", 72,5 [mm]
TV25B	Ball valve BSP 1", 88 [mm]

TA15B	Adapter 1/2", M10
TA20B	Adapter 3/4", M10

Article number key

To acquire the article number, fill in the blanks

TDA26	B	C	D	E	F	G	H

TD045/TL045

TD045 is a sensor for direct immersion and TL045 is for pocket, with the length 45 [mm]. TL045 can with a mounting kit (MK-01) be fitted for direct mounting.

Technical data / approvals TD045/TL045

Sensor type	Pt100/Pt500
Resistance acc. to	IEC751
Max RMS sensor current	8 [mA]
Measuring range	0 - 140 [°C]
Tolerance	Class B
Temp. difference	2 - 100 [°C]
Temp. Step response	1.8 [s]
Min. immersion depth	20 [mm]
Pressure	PN16
Dimensions	
Diameter	5,2 [mm]
Length	26 [mm]
Material sensor tube	inconel
Resistance (2-wire cable)	0,2955 [Ω]
Cable length	2 [m]
Cable type	Silicone, PUR or PVC
Swedish SP	SP WT 98:01
	P 15 42 02
German PTB	22.70/99.06

Dimensions TD045/TL045

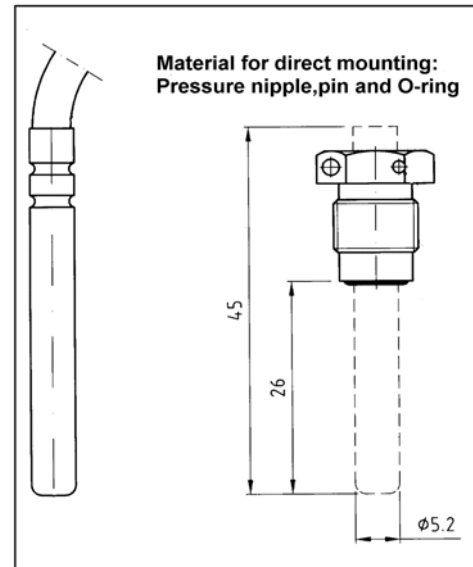
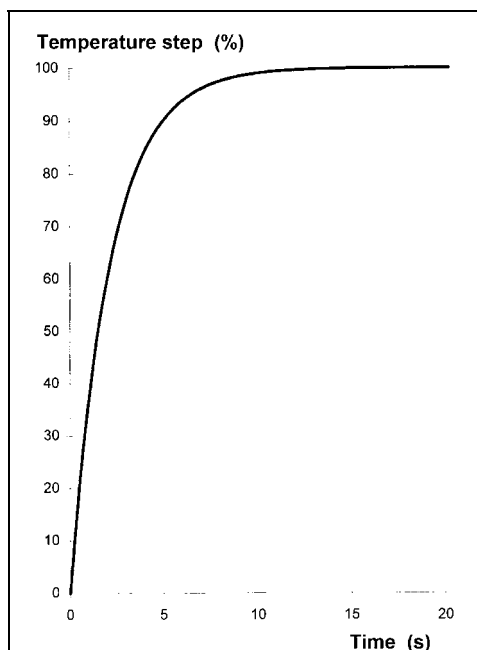


Fig. 4, TD045/TL045 Dimensions

Thermal response TD045/TL045



Ordering TD045/TL045

By combining the correct letters in the table below the correct article number is acquired.

A BCDEF GH

A	TD045	Direct mounting, 45 [mm] sensor
A	TL045	For pocket mounting, 45 [mm] sensor
B	C	Pt100, 2-wire
B	D	Pt500, 2-wire
B	K	Pt100, 4-wire
B	L	Pt500, 4-wire
C	C	Cable straight, max. 140 [°C]
C	S	Cable spiral, max. 90 [°C]
D	15	Cable length 1.5 [m]
D	20	Cable length 2 [m]
E	X	Cable material, PVC max 90 [°C]
E	Y	Cable material, Silicone max.180[°C]
E	Z	Cable material, PUR max 90 [°C]
F	C	Paired sensors, 0-90 [°C]
F	N	Paired sensors, 20-140 [°C]
F	T	Paired sensors, 0-140 [°C]
F	U	Unpaired sensors
G	#	Country code
H	0	Standard
H	S	Special, information enclosed with order

Article number key

To acquire the article number, fill in the blanks

A	B	C	D	E	F	G	H

Accessories TD045/TL045

Mounting kit for direct mounting

MK-01 Pressure nipple (M10) pin and O-ring

Valves and T-pieces

Material; Chromium plated brass PN16
Thread M10 x 1 internal

TT15B	T-piece BSP ½", 56 [mm]
TT20B	T-piece BSP ¾", 64 [mm]
TV15B	Ball valve BSP ½", 63 [mm]
TV20B	Ball valve BSP ¾", 72,5 [mm]
TV25B	Ball valve BSP 1", 88 [mm]
TA15B	Adapter ½" M10
TA20B	Adapter ¾" M10

Pockets, Material steel

TP34	Pocket l=34 [mm]; minor Ø5.2 [mm]
TP50	Pocket l=50 [mm]; minor Ø5.2 [mm]

Pockets, Material brass

TP34B	Pocket l=34[mm]; minor Ø5.2 [mm]
TP50B	Pocket l=50[mm]; minor Ø5.2 [mm]
TP70B	Pocket l=70[mm]; minor Ø5.2 [mm]
TP85B	Pocket l=85[mm], minor Ø5.2 [mm]
TP120B	Pocket l=120[mm], minor Ø5.2 [mm]

Pockets, Material stainless steel

TP85S	Pocket l=85[mm]; minor Ø5.2 [mm]
TP120S	Pocket l=120[mm]; minor Ø5.2 [mm]

Other, Material plastic

Z10-01B	Adapter (blue) for TL045 in pockets
Z10-01R	Adapter (red) for TL045 in pockets
Z10-02	Adapter for pocket-22-D32
Z10-06	Adapter (blue) for sealing screw in pocket-T210-0-311/321
Z10-07	Adapter (red) for sealing screw in pocket-T210-0-311/321

TD85

TD85 is a sensor 85 [mm] for direct immersion.

Technical data / approvals TD85

Sensor type	Pt100/Pt500	
Resistance acc. to	IEC751	
Max RMS sensor current	8 [mA]	
Measuring range	0 - 140 [°C]	
Tolerance	Class B	
Temperature difference	2 - 100 [°C]	
Temperature, step response	1.8 [s]	
Min. immersion depth	79 [mm]	
Pressure	PN16	
Dimensions		
Diameter	5.35 [mm]	
Length	85 [mm]	
Material sensor tube	inconel	
Resistance (2-wire cable)	0,29 [Ω]	
Cable length	2 [m]	
Cable type	Silicone, PUR or PVC	
Swedish	SP	WT04.01 (15 42 14)

Dimensions TD85

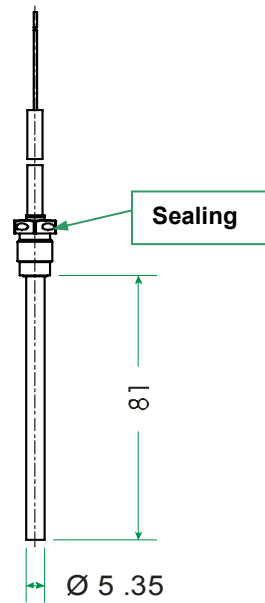
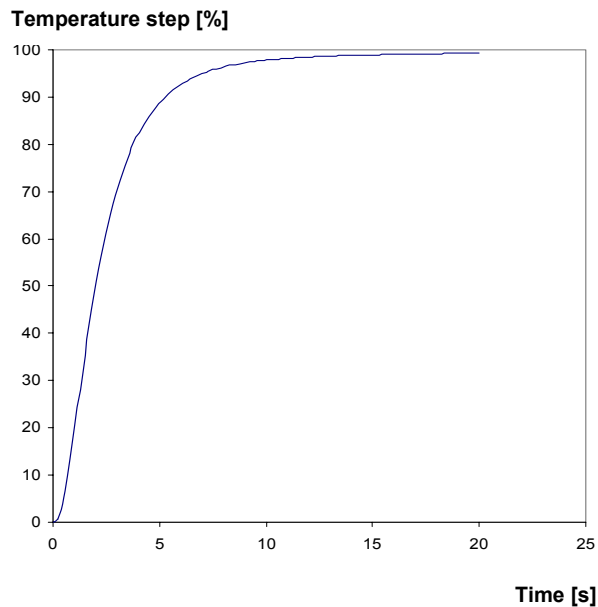


Fig. 2, TD85 dimensions

Thermal response TD85



Ordering TD85

By combining the correct letters in the table below the correct article number is acquired.

TD85 BCDEF GH

B	C	Pt100
B	D	Pt500
C	C	Cable straight, max. 140 [°C]
C	S	Cable spiral, max. 90 [°C]
D	15	Cable length 1.5 [m]
D	20	Cable length 2 [m]
E	X	Cable material, PVC max 90 [°C]
E	Y	Cable material, Silicone max 180 [°C]
E	Z	Cable material, PUR max 90 [°C]
F	C	Paired sensors, 0-90 [°C]
F	N	Paired sensors, 20-140 [°C]
F	T	Paired sensors, 0-140 [°C]
F	U	Unpaired sensors
G	#	Country code
H	0	Standard
H	S	Special, information enclosed with order

Article number key

To acquire the article number, fill in the blanks

TD85	B	C	D	E	F	G	H



Metrima AB

Norra Stationsgatan 93
SE-113 64 Stockholm
Phone: +46 8 23 60 30 Fax: +46 8 23 60 31

www.metrima.se
info@metrima.se

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060220/EW