

A small rapid temperature sensor for direct mounting or for mounting in pockets

## **Temperature sensor SVM TL045**

### **data sheet**



## Features

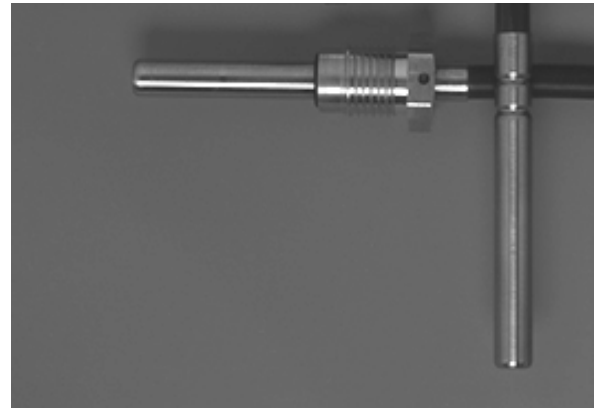
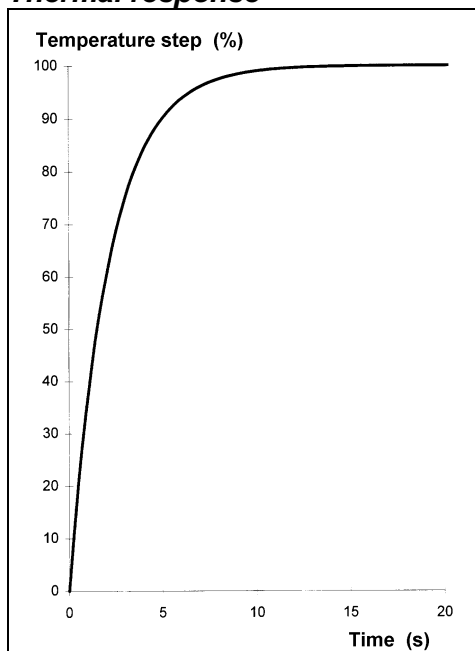
This small sensor consists of a Pt100 / Pt500 resistor, capsuled in a metal shield. Sensors for direct mounting in the flow have the designation TD and sensors for mounting in pockets have the designation TL. An exception from this is TL045 which can be used both for direct mounting together with a mounting kit and also (without this kit) for mounting in pockets. The sensors are delivered, as standard, with a 2 metres cable. They can be mounted in a flow sensor or in ball valves or T-tubes.

## Advantages

The sensors follow the European standard EN1434 and have an extreme short response time due to the small thermal mass.

The sensors are delivered in pairs with permitted difference of max. 0,05 °K and providing a median of 0,02 °K in production and by final inspection.

## Thermal response



## Mounting

It is strongly recommended that the pair of sensors are mounted in identical way using T-pieces or ball-valves alternatively. The equality in mounting and performance will support the accuracy in measurement of temperature difference.

The ball valves offer the possibility to exchange the sensors without big loss of water. The installation must be properly sealed.

Test certificates can be supplied for delivery lots of more than 25 pairs

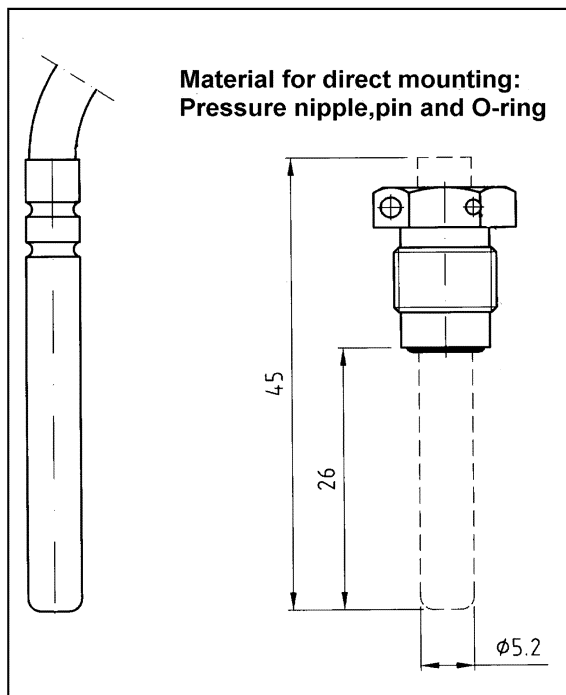
## Technical data

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 sekunder
Min. immersion depth	20 mm
Pressure	PN16
Dimensions	
Diameter	5,2 mm
Length	45 mm
Material	
Sensor tube	inconel
Cable	
Length	2 m
Resistance	0,2955 Ω (2-wire cable)
Typy	Silicone, PUR or PVC

## Type approval

Swedish	SP	SP WT 98:01 P 15 42 02
German	PTB	22.70/99.06

## Dimensions (mm)



TL045 with and without the mounting kit

## Accessories

<b>Mounting kit for direct mounting</b>	
MK-01	Pressure nipple (M10) pin and O-ring
<b>Valves and T-pieces</b>	
<i>Material</i>	Chromium plated brass
PN16	
Thread	M10 x 1 internal
TT15B	T-piece BSP 1/2" length 56 mm
TT20B	T-piece BSP 3/4" length 64 mm
TV15B	Ball valve BSP 1/2" length 56 mm
TV20B	Ball valve BSP 3/4" length 64 mm
TV25B	Ball valve BSP 1" length mm
TA15B	Adapter 1/2" M10
TA20B	Adapter 3/4" M10
<b>Pockets</b>	
<i>Material</i>	steel
TP34	Pocket l = 34 mm; minor diam = 5,2 mm
TP50	Pocket l = 50 mm; minor diam.= 5,2 mm
<i>Material</i>	brass
TP34B	Pocket l = 34 mm; minor diam = 5,2 mm
TP50B	Pocket l = 50 mm; minor diam.= 5,2 mm
TP70B	Pocket l = 70 mm; minor diam.= 5,2 mm
TP85B	Pocket l = 85 mm; minor diam.= 5,2 mm
TP120B	Pocket l = 120 mm; minor diam.= 5,2 mm
<i>Material</i>	stainless steel
TP85S	Pocket l = 85 mm; minor diam.= 5,2 mm
TP120S	Pocket l = 120 mm; minor diam.= 5,2 mm
<i>Material</i>	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

## Ordering key

Temperature sensor	typ T										
For mounting in pocket	L										
For direct mounting	D										
The sensor length in mm		0	4	5							
Measuring element	Pt100										
Measuring element	Pt500										
Type of cable											
straight	max. 140°C										
spiral	max. 90°C										
Cable length in dm											
straight	(standard 20)						x	x			
spiral	(standard 15)						2	0			
Cable material											
PVC	(max. 90°C)									X	
Silikon	(max. 180°C)									Y	
PUR	(max. 90°C)									Z	
Paired sensors	( 0 - 90°C)										
Paired sensors	( 20 - 140°C)										C
Paired sensors	( 0 - 140°C)										N
Unpaired sensors											T
											U
Country code (see art. Register)											#
Standard											0
Special											S