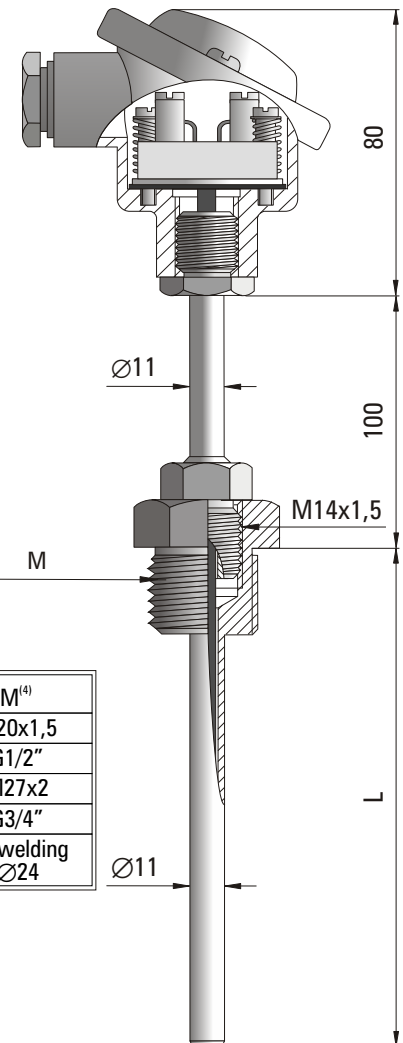


# TEMPERATURE SENSOR

## type 641, 642, 643, 644, 645

### SPECIFICATIONS

Application	sensor with replaceable measuring insert for temperature measurement in industrial pipelines and receptacles under pressure	
Temperature range	-40°C... +550°C	<b>(Pt100)</b>
	-40°C... +400°C	<b>(T)</b>
	-40°C... +600°C	<b>(J)</b>
	-40°C... +900°C	<b>(K)</b>
Measuring element	platinum resistor	<b>(Pt100)<sup>(1)</sup></b>
	thermocouple Cu-CuNi	<b>(T)</b>
	thermocouple Fe-CuNi	<b>(J)</b>
	thermocouple NiCr-NiAl	<b>(K)</b>
Class of processing element	2 (B) <sup>(2)</sup>	
Conductor material	wire Cu/Ni (for Pt100)	
Assembly	2, 3 or 4 wires (for Pt100)	
Measuring junction	insulated <sup>(2)</sup>	
Sheath material	steel 1.4541	
Roughness of sheath surface	$R_a < 0,8 \mu\text{m}^{(2)}$	
Maximum operating pressure	see Sheath Operating Loads information	
Connecting head type	B or NA <sup>(3)</sup>	
Head operating temperature	-40°C... +100°C	
Additional accessories	temperature transmitter thermowell for welding compensation cable	

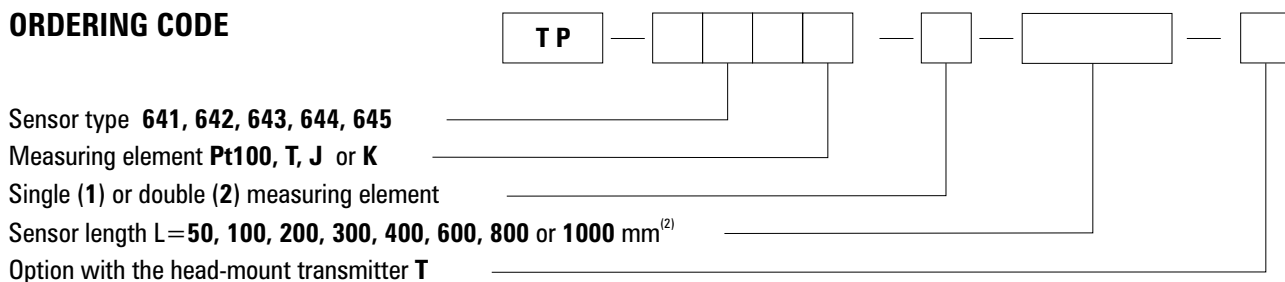


Type	M <sup>(4)</sup>
<b>TP-641</b>	M20x1,5
<b>TP-642</b>	G1/2"
<b>TP-643</b>	M27x2
<b>TP-644</b>	G3/4"
<b>TP-645</b>	for welding Ø24

<sup>(1)</sup> Pt500, Pt1000, Ni100, Ni1000 on demand  
<sup>(2)</sup> Other parameters according to customer requirements  
<sup>(3)</sup> Connection head with protection class IP65 or acid resistant on demand  
<sup>(4)</sup> Other lengths, diameters, inch and metric threads on demand

Sensor length L (mm)	50	100	200	300	400	600	800	1000
Length of insert TP-701 (mm)	180	230	330	430	530	730	930	1130

### ORDERING CODE



**Example for order:** TP-641Pt100-1-50 sensor with single Pt100 resistor (with measuring insert type TP-701Pt100-1-180), sheath outer diameter Ø11 mm and length L= 50 mm with thread M20x1,5.  
 TP-641Pt100-1-50-T; TCHF-2120 sensor with the head-mount transmitter type TCHF-2120.