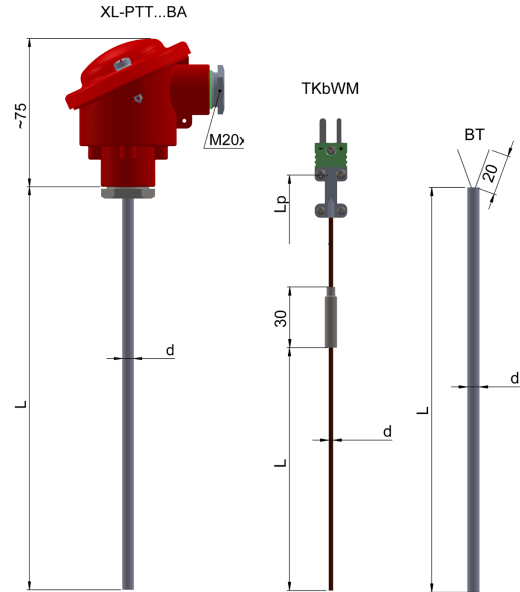


## Mineral insulated thermocouple sensors **XL-PTTK, XL-PTTN**

### Technical description

Measuring range / sensing element	
(-40 ÷ 1250) °C <b>K, N</b> kl. 1	
– accuracy for class 1 max. 2,5 °C - for temperature up to 1250 °C	
– possibility of short-term work up to 1335 °C for 1,5 hours	
Thermowell	
– mineral insulated material: OMEGACLAND XL	
– diameter d [mm]: ø3, ø6	
– length L [mm]: acc. to requirements	
– corrosion resistance during high temperature oxidation process of carburising and chlorination (ammonia and nitrides presence)	
– min. bending radius [mm]: 3xd	
Construction version	
– with head mounted transmitter	type AP
– with connection head	type BA (IP55, (-40 + 100) °C)
– with exposed wire ends 20 mm	type BT
– with sleeve and stranded wires 50 mm	type T
– with M-type plug (miniature)*	type BTWM (ø3)
– with S-type plug (standard)*	type BTWS (ø3, ø6)
– with lead wire	type TKb
– with lead wire and M-type plug	type TKbWM
– with lead wire and S-type plug	type TKbWS
Wire	
– wire: 2x0,22 mm <sup>2</sup> in double silicone insulation	
– wire: 2x0,22 mm <sup>2</sup> in double metal fiberglass insulation	
– measuring junction: isolated SO	
– length L <sub>p</sub> [m]: to order	
Options	
– connection head - stainless BEG; aluminium NA, IP65;	
– aluminium NA with snap lock – p. 217+ 218	
– version: BTW, TKbW and socket to order	
Additional accessories	
– temperature transmitters – p. 225+241	
– mounting brackets: UG-1, UG-3, UG-8, UZK-1 – p. 215+216	



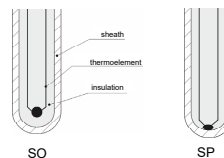
Response time T05/T09

Sensor type	ø9	ø11
<b>Pt</b>	≤33/≤95	≤40/≤120
<b>J, K</b> insulated junction	≤22/≤62	≤27/≤90
<b>J, K</b> grounded junction	≤3/≤8	≤6/≤15

Tolerance for thermocouples class acc. to. PN-EN 60584

Thermocouple	Class 1		Class 2	
	Range [°C]	Tolerance [°C]	Range [°C]	Tolerance [°C]
<b>K, N</b> NiCr-NiAl	(-40+375) (375+1000)	±1,5 ±0,004  t	from (-40+333) (333+1200)	±2,5 ±0,0075  t

Types of measuring hot junction



### Ordering code

Temperature sensor	XL - ...	PTT	...	...	...	...	...	...	...
With transmitter (only BA)	<b>AP</b>								
Thermocouple NiCrSi-NiSi		<b>N</b>							
Thermocouple NiCr-NiAl		<b>K</b>							
Construction version	<b>BA, BT, T, BTWM, BTWS, TKb*</b>								
Mineral insulated diameter dx10					<b>30*</b>				
Junction insulated from the sheath						<b>SO</b>			
Junction grounded						<b>SP</b>			
Sheath length L [mm]							<b>to order</b>		
Cable length L <sub>p</sub> [m]								<b>to order</b>	
Cable insulation: silicone									<b>Si</b>
Cable insulation: braided fiberglass									<b>Ws</b>
Type of transmitter and temperature settings									<b>Tx-(0 ÷ 400) °C*</b>
Additional accessories									<b>UG-3-3*</b>

\* or others acc. to requirements

### Ordering example

**XL-PTTK-TKbWM-60-SO-500-3m-Ws**

On request, a Quality Certificate confirming the conformity of workmanship or a Calibration Certificate of the Accredited Laboratory for Temperature Measurements at Limatherm Sensor Sp. z o.o.