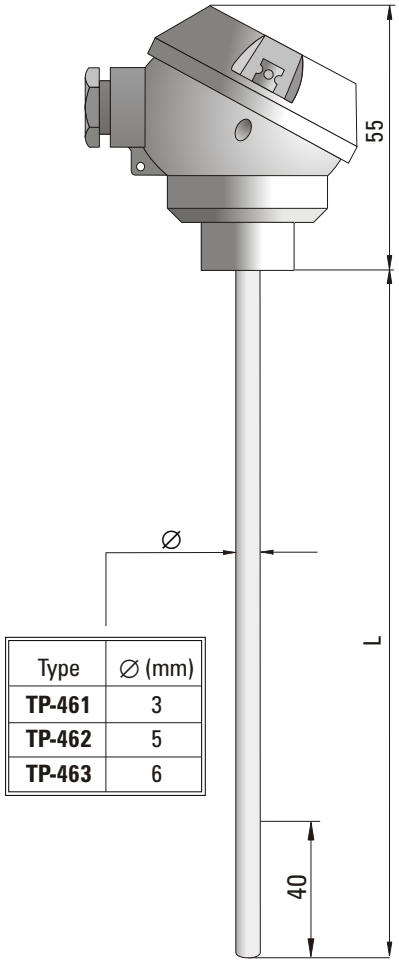
CZAKI THERMO-PRODUCT
05-090 Raszyn-Rybie, ul. 19 Kwietnia 58
Poland www.czaki.pl
tel. +48 22 7202302
fax +48 22 7202305
e-mail czaki@czaki.pl

TEMPERATURE SENSOR

type 461, 462, 463

These sensors are made using mineral insulated cable. The outer sheath is from acid resistant steel and conductors are from copper with added zirconium. Lead insulation is magnesium oxide. The addition of zirconium to the copper ensures constant conductor resistance over a wide range of operating temperature. A platinum resistor is employed as the measuring element. This sensor construction combines the advantages of high resolution found in platinum resistance thermometers together with the **elastic properties** of mineral insulation which gives a **high degree of resistance to shock and vibration** in difficult industrial applications.

Note: rigid sensor tip with a length of 40 mm.

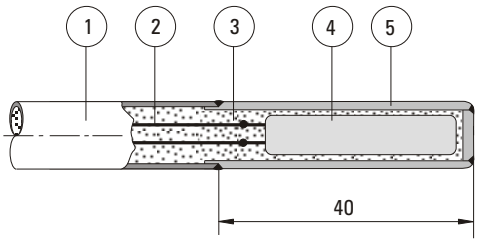


Type	∅ (mm)
TP-461	3
TP-462	5
TP-463	6

SPECIFICATION

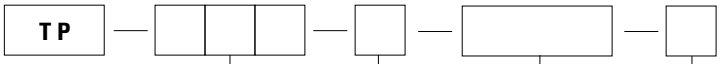
Temperature range	–100°C...+550°C	
Measuring element	platinum resistor	(**Pt100**) [1]
Class of processing element	B [2]	
Conductor resistance	wire CuZr 0,15 Ω/m	(TP-461)
	0,07 Ω/m	(TP-462)
	0,04 Ω/m	(TP-463)
Assembly	2 ,3 or 4 wires	
Sheath material	steel 1.4541	
Connection head type	MA or B [3]	
Head operating temperature	–40°C...+100°C	
Additional accessories	compression gland **KP**	
	temperature transmitter	

[1] Pt500, Pt1000, Ni100, Ni1000 on demand
[2] Other parameters according to customer requirements
[3] Connection head with protection class IP65 or acid resistant on demand



1 – mineral insulated cable - flexible
2 – wire CuZr
3 – insulation – MgO
4 – platinum resistor
5 – sheath material - rigid

ORDERING CODE



Sensor type **461**, **462, 463**
Single (**1**) or double (**2**) measuring element
Sensor length L = **200**, **400**, **600**, **800** or **1000** mm [2]
Option with the head-mount transmitter **T**

Example for order: TP-461-1-800 sensor with connection head type MA, with single Pt100 resistor, sheath outer diameter ∅ = 3mm and length L=800mm
TP-461-1-800-T; TCH-2140-Pt100 sensor with connection head type B, option with the head-mount transmitter type TCH-2140-Pt100