

TECHNICAL SPECIFICATION

Thermocouple and thermo resistance



The thermo-measuring elements are designed for measuring the temperature in the point of contact between the surface (warmed or cooled) and the thermo-element. They are a comparatively cheap and the most wide-spread method for temperature measurement. The thermocouples are produced by accumulating two conductors from a special measuring alloy in one common head. Each of these elements has a specific electromotive voltage at a specific temperature. The temperature measuring is based on the difference in the electromotive powers between the hot and the cool end of the thermocouple, while this difference in the form of voltage of several millivolts is supplied at the input of the thermoregulator, which displays the measured temperature. Each thermocouple is produced and calibrated for measuring of specific temperature ranges depending on the alloys of which it is made. When thermocouples measuring great distances from the thermoregulators are used (more than 15 points), it is obligatory to use compensatory cable corresponding to the type of the thermocouple. The thermo-resistant elements action is based on the capacity of specific alloys, very often Pt100 to change their resistance when the temperature is changed. For each temperature value is specified a value of resistance. This value is supplied at the input of the thermoregulator, which displays the measured temperature.

Each thermoregulator operates with a specific type of thermo-element.

Variants:

Type of thermo-element	Symbol	Temperature range	Type of catching	Sizes of the head	Size of the free end	Packing / Box (pcs)	Catalogue number
K	WRNT-01	0 ÷ 400°C	nut	30 x 35	1m	1 / 300	50K40G
K	WRNT-31	0 ÷ 400°C	bayonet	30 x 35	0.5m	1 / 200	50K40B
K	WRNT-13	0 ÷ 400°C	explosion-proof	Ø6	2m	1 / 200	50K40EX
J	WRNT-01	0 ÷ 400°C	nut	30 x 35	1m	1 / 300	50J40G
J	WRNT-13	0 ÷ 400°C	explosion-proof	Ø6	2m	1 / 300	50J40EX

