

Resistance Thermometer

TRT Series



Description

TRT Series Resistance Thermometers are widely used in various processes from -200°C to + 850°C. They give more accurate values at low temperatures than thermocouples. Standard productions up to 500°C, special types are used for requests up to 500-850°C. All of our TRT Series products are manufactured as Class-A. Resistance thermometers are generally used in processes such as machines, tanks, pipes, gas and liquid media and surface measurements. Pt-100 and Ni-100 resistance thermometer elements give resistance values in accordance with IEC 751 standard. Resistance thermometers are manufactured with inset. Inset placed in outer protective cover. It is a second protector. The resistance thermometer element is placed inside the inset outer cover and metal oxide powders are filled.

The big advantage is that the inset is changed without stopping the process. In addition, by providing only the inset of a resistance thermometer whose other parts such as outer protector and head are intact, more economical material is obtained.

Connection Head

The resistance thermometer protective covers are attached to the aluminum cast head, and the inset is fixed with two screws with spring compression. By installing with spring compression, problems caused by vibration are minimized. In addition, the problems that may arise due to the expansion are eliminated and a better heat transmission is provided.

Generally, B-type aluminum casting heads are used in resistance thermometers. It is used in C type head when requested.

The heads comply with the DIN 43729 standard.

Connection and Mounting Types

Resistance thermometers specified in this catalog are generally designed to be connected to the process with a union or flange.

Copper conductive cables are used between the resistance thermometer head and the device. The connection cable is connected to resistance thermometers up to 10 meters and with two-wire cable, three-wire from 10 meters to 150 meters and four-wire after 150 meters. The fluid velocity of the process in which the resistance thermometer is immersed is a factor affecting the measurement accuracy. Resistance thermometers should generally be placed perpendicular to the flow direction.

In order for the resistance thermometer to be able to measure correctly, the resistance thermometer must be immersed in the process at least 10-15 times the outer sheath diameter.



TRT01



TRT02



TRT03



TRT04

TRT Series

TRT					Description
Mounting	01				without mounting bush
	02				with underhead mounting bush
	03				120 mm between mounting bush and head
	04				145 mm between mounting bush and head
Element Number	1B				single element
	2B				Double element
Stem Diameter	XX				Specify (Ex. 06 for 6mm, 09 for 9mm)
Stem Length			XX		Specify (Ex. 10 for 10cm, 16 for 16cm)
Process Connection			08		G 1/4" thread
			15		G 1/2" thread
			20		G 3/4" thread
			25		G 1" thread
Output			NN		Pt-100
			TR		4 – 20 mA, 2 wires (24VDC power supply)
Electrical Conn. Head			NN		IP65
			EX		Ex d II B T6 flameproof