

Cable resistance thermometer For shipbuilding industry Model TR195, with bayonet coupling

WIKA data sheet TE 69.10

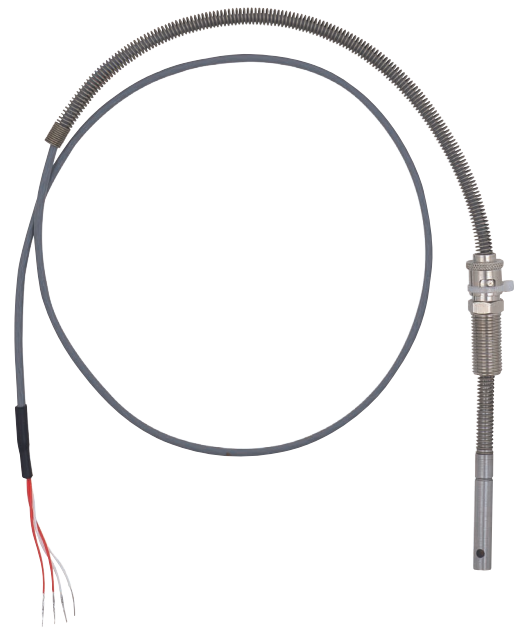


Applications

- Temperature measurement on bearings, axles and moving parts in aggregate

Special features

- Robust
- Ingress protection IP 67
- PTFE cable with plastic laminated aluminium foil
- Approval Lloyd's Register



Cable resistance thermometer, model TR195

Description

Resistance thermometers for measuring surface temperature on solid bodies or moving parts, such as axles and bearings. The spring-loaded probe tip has been especially designed for such applications. The standard temperature range is -50 ... +200 °C.

The bayonet coupling can be adjusted to any point on the cable relief spring, thus allowing variable insertion lengths. Due to the spring-loading via the cable relief spring the probe tip is always firmly in contact with the area where the temperature has to be measured.

In addition the bayonet coupling allows quick and easy probe change.

Sensor

The sensor is located in the probe tip.

Sensor connection method

- 2-wire The lead resistance is recorded as an error in the measurement.
- 3-wire With a cable length of approx. 30 m or longer, measuring errors can occur.
- 4-wire The internal lead resistance of the connecting wires is negligible.

Sensor tolerance value per DIN EN 60751

- Class B
- Class A (not with 2-wire connection)

The combination of a 2-wire connection with class A is not permissible, since the lead resistance of the measuring insert negates the higher sensor accuracy.

For detailed specifications for Pt100 sensors, see Technical Information IN 00.17 at www.wika.com.

Probe

Design

Rigid tube

Diameter

8 mm, others on request

Length

47 mm, others on request

Process connection

Bayonet coupling with G ¼ adapter, adjustable on cable relief spring

Material

Tube	stainless steel 1.4571
Cable relief spring	stainless steel
Adapter	copper alloy, nickel-plated

Insertion length

Variable, from 50 ... 355 mm

Ingress protection

IP 67

Cable

Insulation

PTFE

Screen

Plastic laminated aluminium foil

Cable relief

Spring

Permissible ambient temperature

-200 ... +200 °C

Wire material

Cu (strands)

Wire cross-section

0.25 mm²

Number of wires

According to the number of sensors and the sensor connection method

Wire ends

blank

Cable length

To customer specification

Connection box, mounted to cable (option)

Material

Aluminium, epoxy coated

Cover

Detachable, 2 mounting screws, EPDM flat seal

Cable glands

PG 16

Ingress protection

IP 67

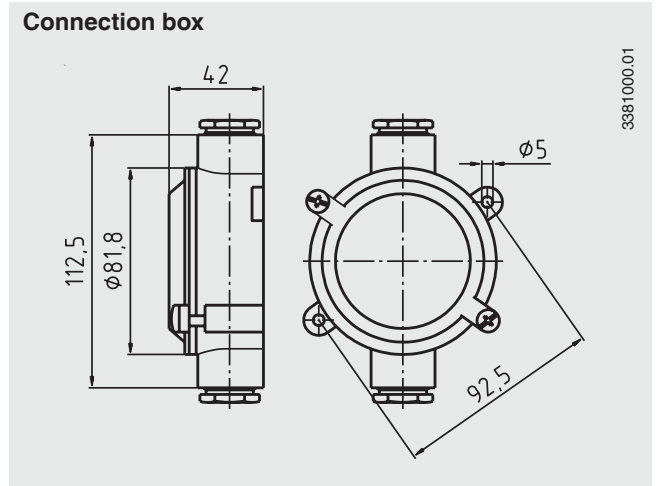
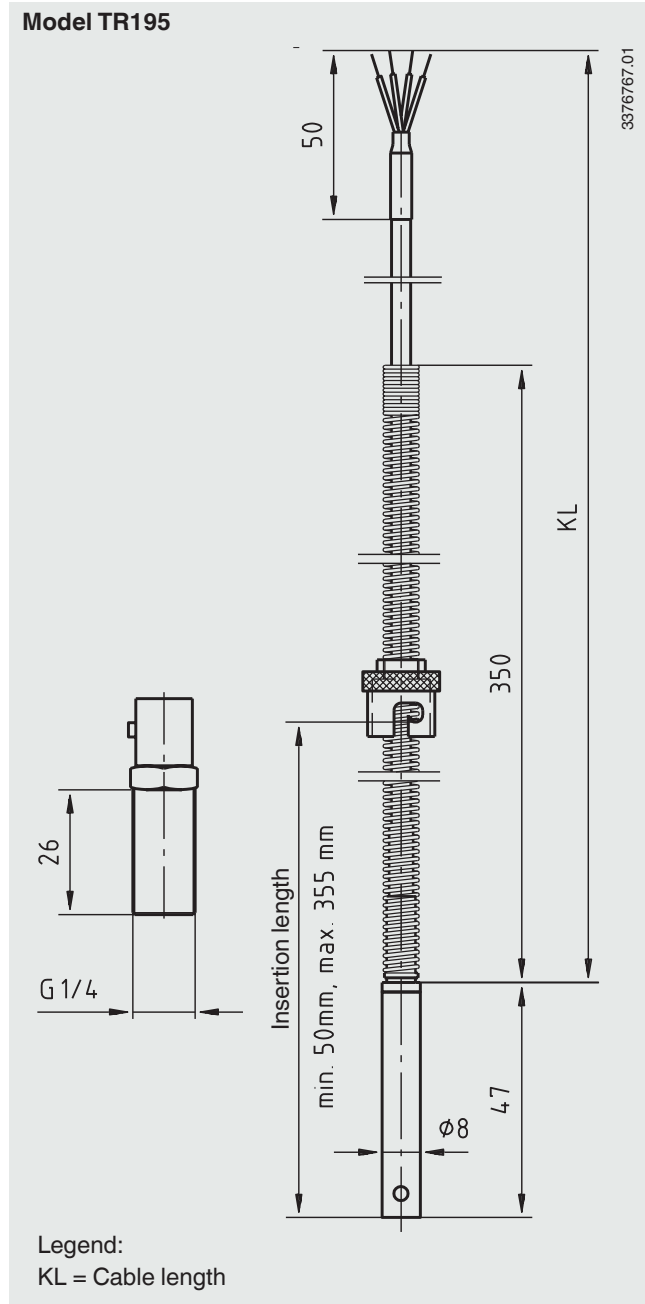
Terminal block

Ceramic, max. 1.5 mm², screws captive

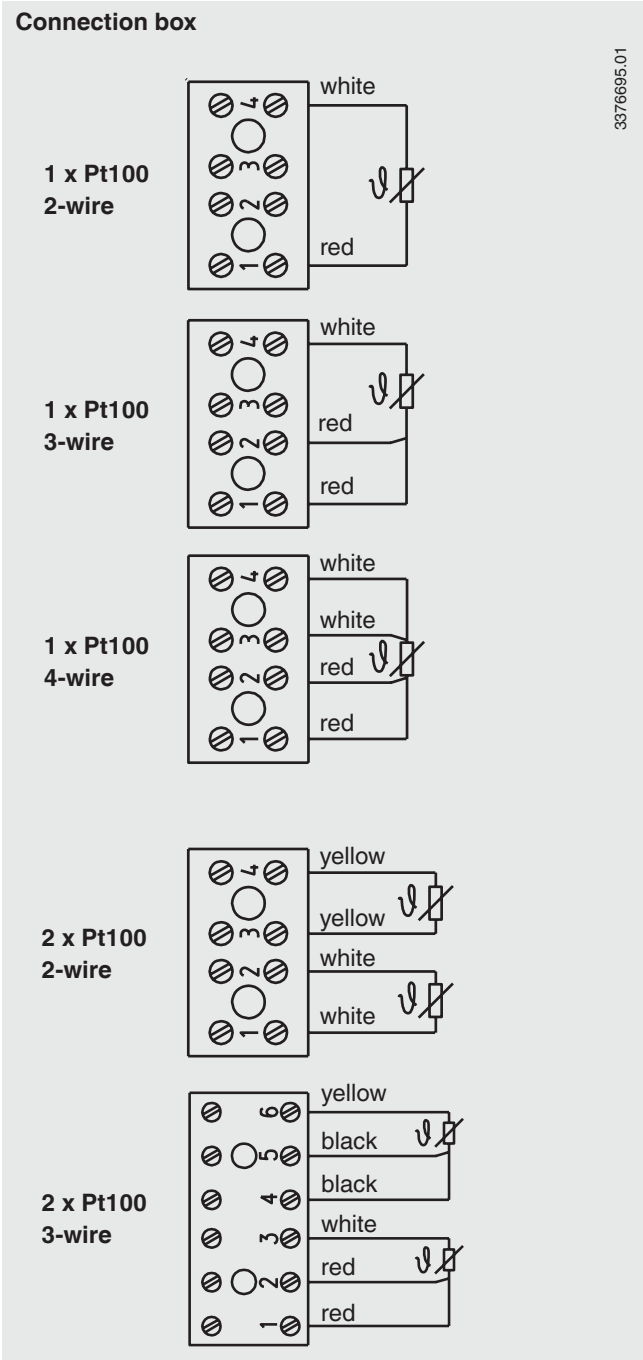
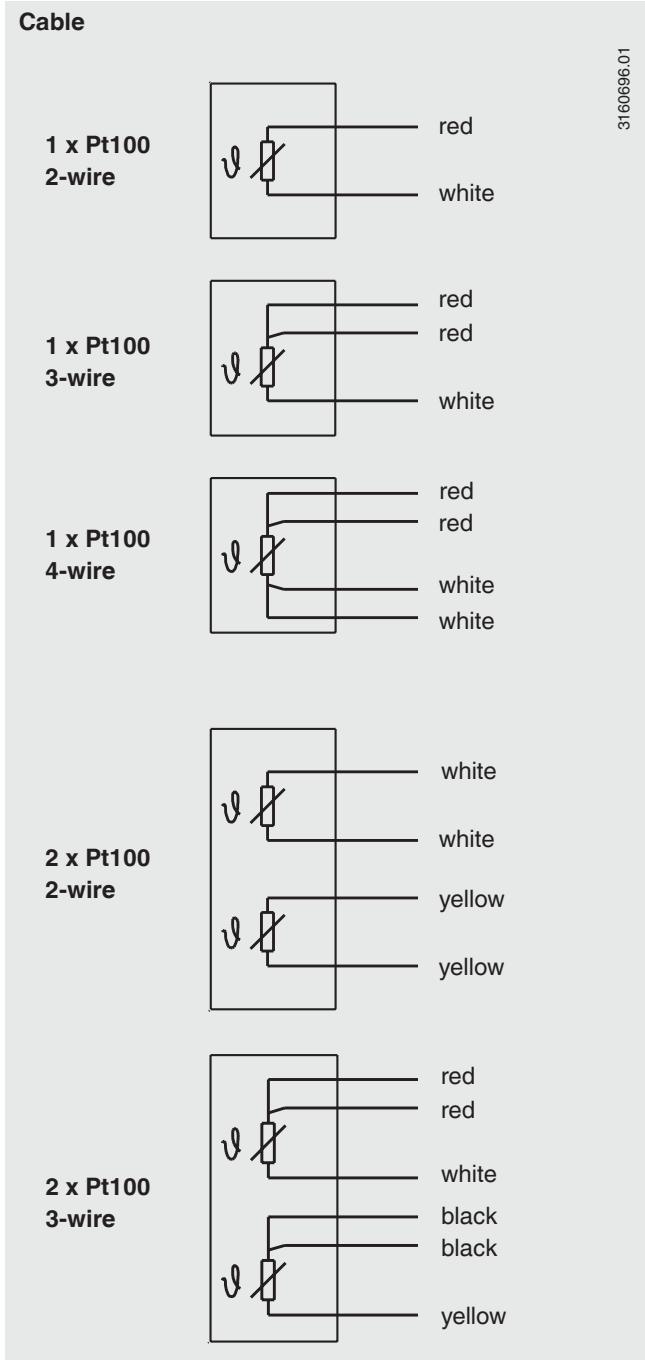
Ground terminal

Present

Dimensions in mm



Electrical connection



Ordering information

Model / Sensor type and number of sensors / Sensor connection method / Tolerance value / Probe diameter, length / Cable length KL / Terminal block / Options

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