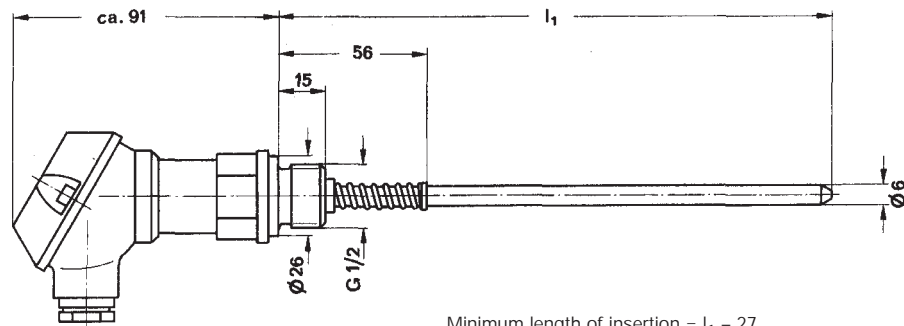


Screw-in Type Resistance Thermometer Pt 100 for measuring temperatures



Minimum length of insertion = $l_1 - 27$
with deflected spring
Spring deflection = 27 mm

Insertion lengths $l_1 = 125, 150, 180, 215, 250, 275, 295, 335, 345, 410$ mm unloaded

The **RENK-Screw-in Type Resistance Thermometer** was specifically developed for measuring temperatures of slide bearings. Due to its compact design - connecting head and spring-loaded element - assembly and replacement can be easily carried out without dismantling the bearing.

Special features:

Accurate measurement of bearing temperatures by springloaded sensor in good contact with the bearing shell.

Short response times.

The insulated screw connection permits its application also with bearings featuring insulation between bearing shell and housing.

Ready for assembly complete with connecting head.

Temperature sensors are available from stock with 10 different insertion lengths.

The lengths shown are suitable for the whole range of bearings Type E. For other types of bearings the insertion length can be reduced by adaptors. Electrical wiring

must be in accordance with the wiring diagrams illustrated on the reverse of this sheet.

The **Two-Wire Connection** is used for short cable lengths and in case there are minor environmental temperature changes. The measuring current is supplied along two lines. Changes in line resistance (e.g. as a result of temperature changes) are fully displayed.

The **Three-Wire-Connection** is used for longer cable lengths and/or with lines subject to considerable environmental temperature changes.

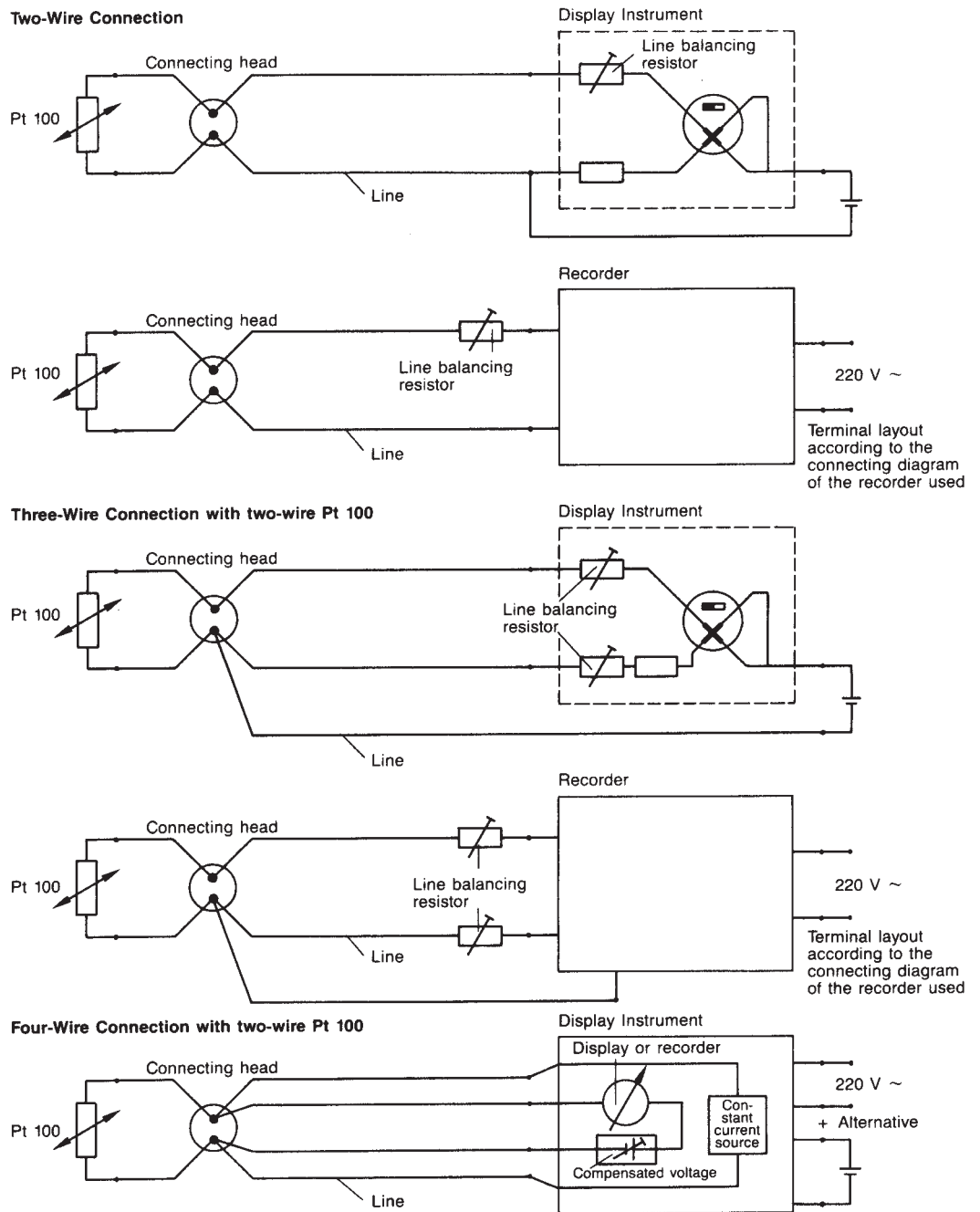
The two feed lines from the probe resistor to the display cross coil act as series resistors of a bridge circuit. Changes in resistance affect both lines equally without distorting the bridge circuit.

The **Four-Wire Connection** is the most elaborate and is used where highest accuracy is required.

All the changes in line resistance which with a 3-wire system may still arise as result of using lines of unequal combination are compensated by a constant current source.

Because of the high impedance of the display unit the accuracy of indication is not affected by changes in line resistance.

Connection of Resistance Thermometer Pt 100



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We reserve the right to changes made in the interests of technical improvement.

Sheathed Resistance Thermometer Pt 100

Non-rigid probe with flexible connection for measuring temperatures



Typical application:

Measurement in thrust part of bearing Type E with RD thrust pads.

Measurement in bearing Type EV radial tilting pads and RD thrust pads.

The RENK Sheathed Resistance Thermometer was specifically developed for measuring temperatures in slide bearings. The temperature sensor is located at the end of the probe (Fig. 1). The probe is fastened adjustably to the bearing with a gland bolt. The oil-resistant connecting wire of the sensor is protected against kinking at the outlet.

A certain clearance between the sensor diameter and the diameter of the bore for the sensor allows free alignment of the tilting RD thrust pads and segments.

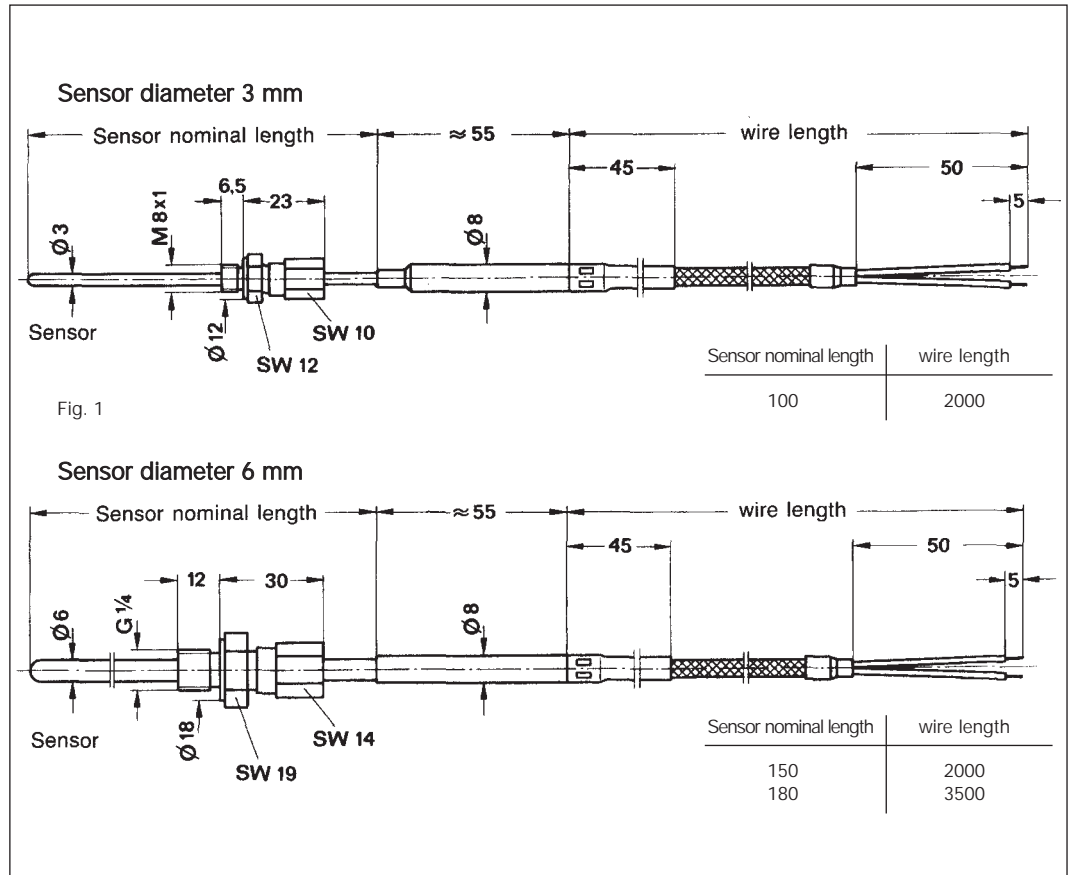
The probe can be bent within a minimum radius of 10 mm within the nominal length of the sensor when necessary.

The wire is led through a threaded gland to a connecting head (Fig. 2) or terminal board fitted outside the bearing where it is connected. A multiple cable gland can be used to collect the cables of several sheathed thermometers.

RENK sheathed resistance thermometers are supplied with probes of 3 mm and 6 mm diameter.

Electrical wiring must be in accordance with the wiring diagram illustrated on the reverse of this sheet.

The **Two-Wire Connection** is used for short cable lengths and in case of minor changes of the ambient temperature. The measuring current is supplied along two lines. Changes in line resistance

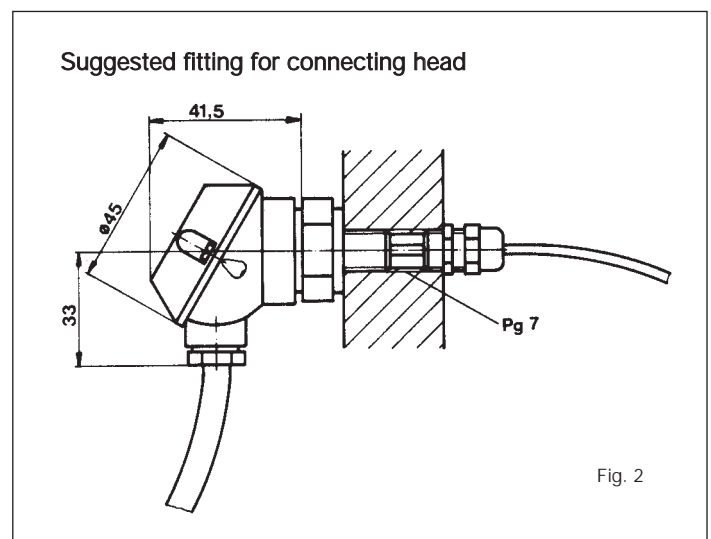


(e.g. as a result of temperature changes) are fully displayed.

The **Three-Wire Connection** is used for longer cable lengths and/or with lines subject to considerable environmental temperature changes. The two feed lines from the probe resistor to the display cross coil act as series resistors of a bridge circuit. Changes in resistance affect both lines equally without distorting the bridge circuit.

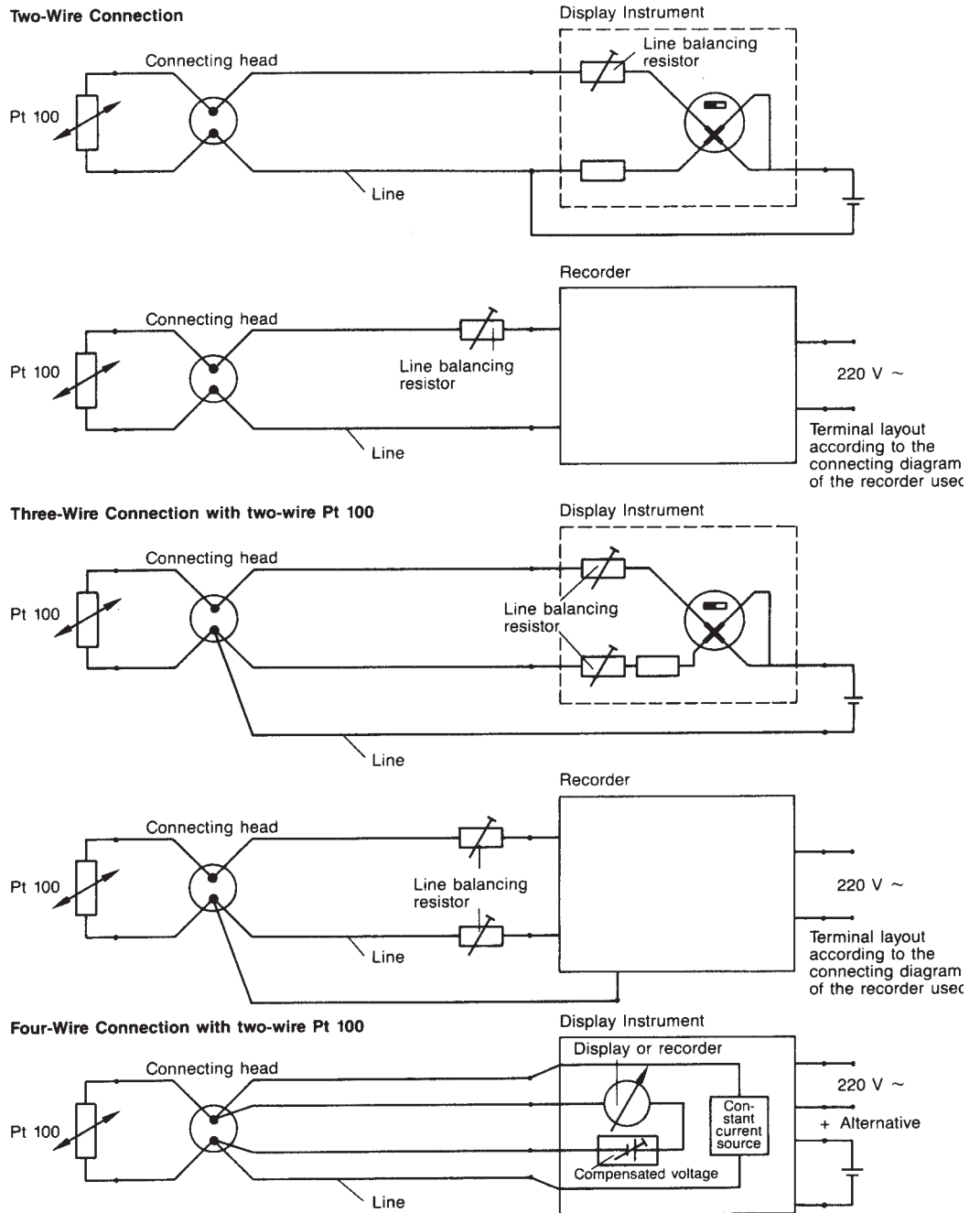
The **Four-Wire Connection** is the most elaborate and is used where highest accuracy is required.

All the changes in line resistance which may still arise with a 3-wire system as result of using lines of unequal combination are compensated by a constant current source.



Because of the high impedance of the display unit the accuracy of indication is not affected by changes in line resistance.

Connection of Resistance Thermometer Pt 100



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Angle Thermometer for monitoring the temperature of slide bearings



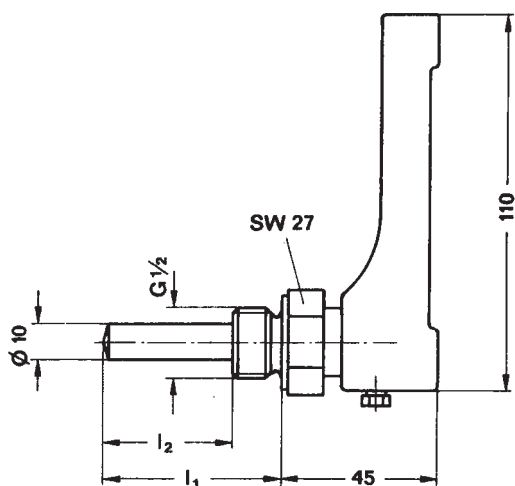
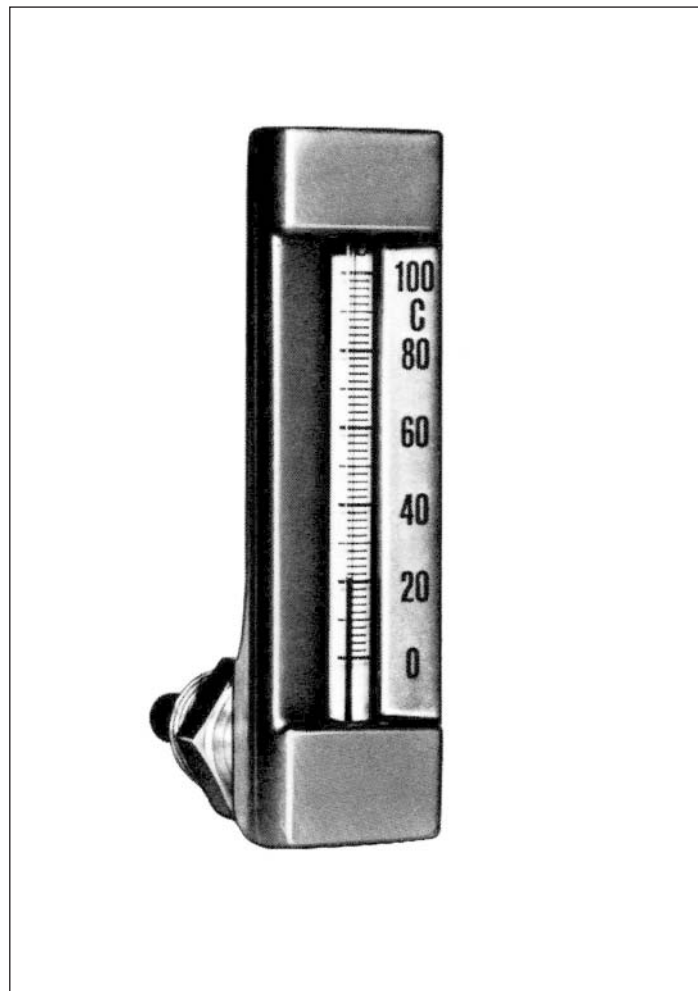
RENK Angle Thermometers are used for monitoring the temperature of slide bearings where visual control is required on the spot.

The instrument will measure the temperature of bearing shells as well as oil bath temperatures.

Neither precision nor speed of response of this thermometer are as good as those of the

RENK Screw-in Type Resistance Thermometers with springloaded sensor. Temperature indication ranges from 0 to 100°C. These thermometers are available in different lengths of insertion. Special lengths can be supplied on request.

Their main dimensions of this thermometer are in accordance with Standard DIN 16182.



Indicating range °C	Symbol	Length of insertion l_1	Depth of immersion l_2 ≈
		50	36
		110	96
0 ... 100	100	160	146
		230	216
		300	286

The indicator scale can be rotated and fixed by adjusting the screw union.

G = B. S. P.

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Brazil	Italy	Slovenia Republic
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Änderungen, bedingt durch den technischen Fortschritt, vorbehalten.