

Pt100 air/bearing thermometer

Ordering options A40 A41 A42 A43 A44 A45 A46 A47

1 Description

Using resistance thermometers, bearing and/or cold and warm air cooling circuit temperatures can be permanently monitored.

The thermometer is a temperature sensor with a platinum measurement resistor. The resistance changes with the temperature. For a constant current flowing through the measuring resistor, the voltage changes proportionally to the change in resistance. This means that the temperature can be derived from the voltage.

At 0°C, a measurement resistor with accuracy class B is calibrated to $100\ \Omega \pm 0.12\ \Omega$. The resistance values as a function of the temperature are defined in IEC 60751.

2 Technical data

Type	Screw-in thermometer	
Measuring element	1 × Pt100 / B oder 2 × Pt100 / B (IEC 60751) see Chapter 3	
Motor series	HV C, HV M	HV HP, HS-synchron, HS-modyn
Circuit type	2-wire connection	3-wire connection
Circuit from the terminal box	2, 3 or 4-wire connection	3 or 4-wire connection
Scope of delivery	Screw-in thermometers, installed, cabled up to the auxiliary terminal box	
Evaluation unit	Not included in the scope of supply	
Can be additionally ordered	Calibration certificate	

The information provided in the technical details in the product-specific data sheets have priority.

3 Use and design

Application	Option	Design	Application	Option	Design
Rolling bearings	A40	1 × Pt100	Cold air	A44	1 × Pt100
Rolling bearings	A42	2 × Pt100	Cold air	A46	2 × Pt100
Sleeve bearings	A41	1 × Pt100	Warm air	A45	1 × Pt100
Sleeve bearings	A43	2 × Pt100	Warm air	A47	2 × Pt100

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