Typical applications

Thermal protection against overheating of transformers or other electric machines

Winding protection of electric engines and drives

Temperature supervision of **live parts**

Temperature supervision in **hazardous areas**

High-voltage resistant coil head sensors up to 10 kV for the direct use in high-voltage machines

Slot resistance thermometers provided by EPHYMESS are mostly designed with a bifilar measuring winding. They allow the temperature detection over the complete length of the sensor. They are mainly installed in slots of electric machines.

The spectrum of **screw-in resistance thermometers** ranges from simple screw-in housings with connection wire, over fixed screwor shiftable clamping screw connections up to various connection heads with protective sheath and different process fittings. Using fixed or shiftable fitting the thermometers are individually adjustable to their installation position and can be assembled simply and fast.

Cable resistance thermometers are a common solution for various temperature monitoring applications. They are mainly used in lower up to middle temperature ranges -60°C ... +260°C / -105°F ... +500°F, whereby special designs up to +400°C / +752°F are also available.

The temperature sensors will be assembled on customer request and every sensor will be tested before leaving the factory regarding the input requirements. We are looking forward to developing the temperature sensor according to your specific requirements in cooperation with your engineers.

Our expertise for your product

EPHYMESS GmbH is a competent solution partner of all manufacturers of electrical machines and drives. We consult, develop and produce for our customers individual sensor solutions for safety and control requirements. Our focus is on the following market segments: rail technology, renewable energy and the general industrial segment.

Since 1955 the mid-sized and family-owned company, located in Wiesbaden, manufactures high-quality sensor solutions for monitoring electric drives and machines. Our sensors are used by customers of the following sectors: industry and plant engineering, heavy equipment construction, traffic engineering, wind power stations, refrigeration engineering, air-conditioning technology as well as in the measurement and control technology or in laboratory and research facilities. The product portfolio contains platinum and nickel measuring resistors, thermocouples, PTC / NTC thermistors, KTY sensors, bimetallic switches electric band heaters as well as speed sensors and oil level gauges for use in rolling stock.

Intensive research and development as well as a highly developed quality management ensure our high product standards. EPHYMESS has numerous utility models and patents, IECEx and ATEX certifications, certificatiions acc. DIN EN ISO 9001, DIN EN ISO 14001 and ISO/TS 22163 (IRIS), TR certificates, Metrological Certificates and 1st Calibrationa as well as certifications according to UL/CSA (NEC500 / 505) CCC and INMETRO.

Your contact at EPHYMESS GmbH

Director	Ingmar Wege
Sales	Phone: +49 6122 9228-54
	ingmar.wege@ephymess.de
Internet	**www.ephymess.de**
Address	Berta-Cramer-Ring 1
	65205 Wiesbaden
Phone	+49 6122 9228 -0
Fax	+49 6122 9228 -99
Mail	info@ephymess.de

EPHYMESS

EPHYMESS

Bespoke sensor technology. Worldwide.

Industry sensors

Temperature sensors for use in motors, transformers or generators

- **kV- resistant versions up to 10 kV**
- **safe isolation**
- **temperature range up to +400°C / 752°F**
- **IECEx and ATEX approved versions**
- **certificate for the Eurasian Economic Union**
- **UL and CSA approved versions**

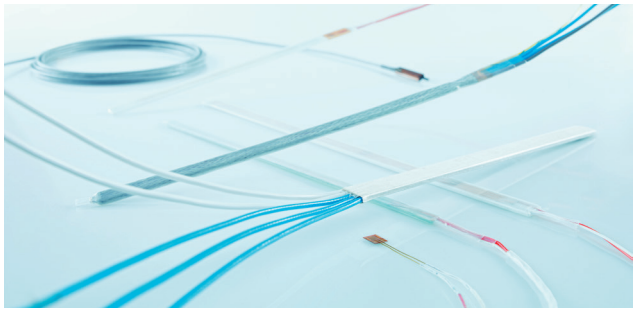
TÜV NORD CERT GmbH ISO 9001

IRIS Certification

TÜV NORD CERT GmbH ISO 14001

Slot resistance thermometers

- custom-made configuration
- chip measuring resistor or bifilar measuring winding
- temperature range up to +200°C / +392°F
- resistant to shock, pressure and vibration
- temperature sensitive length equal to whole sensor length (less 20 mm)
- special versions up to 7 m
- for the use in hazardous areas



version:	slot resistance thermometer flexible, rigid, multispot
temperature range:	-60°C … +200°C / -58°F ... +392°F
nominal resistance:	100 Ω at 0°C
mode of connection:	2-, 3- or 4-wire circuit
measuring current:	max. 25 mA
bifilar:	recommended 0.3 ... 1.0 mA
chip:	recommended 0.2 ... 2.0 mA
dielectric strength:	from 0.5 kV / AC 50 Hz / 1min.
insulation:	shrinking tube, mica
dimensions, e.g:	2 mm x 8 mm x 100 mm 2 mm x 8 mm x 500 mm 2 mm x 10 mm x 250 mm 1.5 mm x 10 mm x 60 mm
supply line:	e.g. single itzes, hose line AWG28 to AWG20
length:	acc. to customer specification
special design:	2x-Pt100

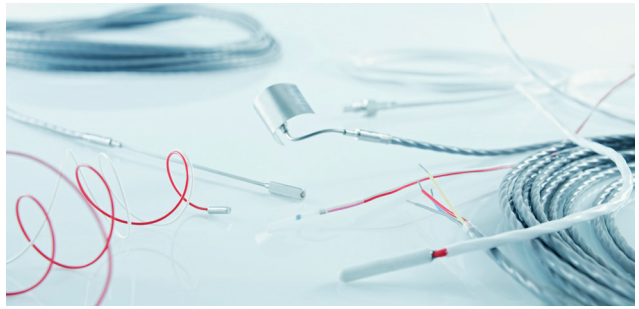
Screw-in resistance thermometers

- versions with Pt measuring resistors, PTC thermistors or thermocouples
- either with fixed or adjustable process connection
- simple and quick installation with clamp screw connection
- mounting with adapter or flange
- version with spring-loaded immersion sheath on request
- optional with integrated head-mounted transmitter (4-20 mA)
- for use in hazardous areas

version:	screw-in housing and EM24 / EM38 head made of brass, aluminum or stainless steel, DIN connector head Type A / B / BUS / BUZ / MA, bayonet lock, industrial connector
temperature range:	-60°C ... +400°C / -94°F ... +752°F
nominal resistance:	100 Ω at 0°C
mode of connection:	2-, 3- or 4-wire circuit or plug connector
measuring current:	recommended 0.3 ... 1.0 mA max. 25 mA
dielectric strenght:	from 0.5 kV / AC 50 Hz / 1 min.,
insulation:	shrinking tube on request
supply line:	e.g. single itzes, hose line AWG28 to AW20
length:	according to customers specification
special design:	dust- and waterproof versions (IP66)

Cable resistance thermometers

- custom-made sensors
- kV- resistant versions up to 10 kV
- temperature range up to +400°C / +752°F
- for the use in hazardous areas
- special versions on request



version:	resistance thermometer insulated with shrinking tube or built in metal or ceramic sleeve
temperature range:	-60°C … +260°C/-94°F ... 500°F
measuring resistant:	Pt100, Pt500, Pt1000, 2x-Pt100
mode of connection:	2, 3 and 4 wire circuit
measuring current:	recommended 0.3 to 1.0 mA, max. 25 mA
dielectric strength:	from 0.5 kV / AC 50 Hz / 1min. (higher kV-resistance on demand)
dimensions, e.g.:	ø 3.0 mm x 15 mm ø 3.2 mm x 40 mm ø 4.9 mm x 30 mm ø 6.0 mm x 60 mm
supply line:	e.g. single litzes, hose lines AWG30 to AW14, also screened versions
length:	according to customers specification
special design:	screw-in housing