## **Bimetallic switches**

- switching points up to +200°C
- standard tolerance  $\pm 5$  K, ( $\pm 2.5$  K available)
- switching current up to 25 A
- vacuum-tight versions
- high response sensitivity
- special designs on request, also UL approved



version:	single, double or triple bimetal-
	lic switches, normally
	closed or normally open
nominal switching temp. (NST):	+60°C +200°C
•••••	special versions from 0°C to
	+450°C
resetting temperature:	≥30°C ±15 K below NST
standard tolerances:	±5 K for respective NST
nominal/ switching current:	2.5 A / 6.3 or 10 A / 25 A
dielectric strength:	up to 2 kV with insulation cap
dimensions:	e.g. ø 9.4 mm x 4.8 mm x 16 m
supply line:	e.g. single litzes,FEP- or
	PTFE-insulated
length:	300 mm (standard) other length
· ·	on request
cross section:	0,25 mm <sup>2</sup> 0,75 mm <sup>2</sup>
designs:	shrinking tube insulated, Mylar-
	Mylar-Nomex cap, metal sleeve
	screw-in housing, flange housir
	version: nominal switching temp. (NST): resetting temperature: standard tolerances: nominal/ switching current: dielectric strength: dimensions: supply line: length: cross section: designs:

## 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, certifications 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.

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# **EPHYMESS**

Bespoke sensor technology. Worldwide.

# Wind power sensors

for use in wind turbines, hydro power plants and renewable energies



- for geared and direct drive on- and offshore systems
- kV- resistant versions up to 10 kV
- redundant versions with 4 ... 20 mA
- individual special solutions
- resistant to shock, pressure and vibration







### **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 x 15 mm
	ø 3.2 x 40 mm
	ø 4.9 x 30 mm
	ø 6.0 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

### 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:

temperature range:

nominal resistance:

mode of connection:

measuring current:

dielectric strenght:

insulation:

supply line:

special design:

length:



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 -60°C ... +400°C / -94°F ... +752°F 100 Ω at 0°C 2-, 3- or 4-wire circuit or plug connector recommended 0.3 to 1.0 mA max. 25 mA from 0.5 kV / AC 50 Hz / 1 min. shrinking tube on request e.g. single itzes, hose line AWG28 - AW20 according to customers specification dust- and waterproof versions (IP66)

## **Thermistors (PTC resistors)**

- high temperature stability
- custom-made versions
- with screw-in housing
- special designs on request
- for use in hazardous areas



version:

operating temperature: tolerance:

dielectric strength:

dimensions: supply line:

length:

special design:

single-, triple- thermistors, shrinking tube insulated, in metal or ceramic sleeve -25°C ... T<sub>NRT</sub> +23K nominal response temp. (NRT): +60°C ...+190°C/140°F...374°F acc. DIN VDE V 0898-1-401 ±5 K (up to. NRT 160°C) ±7 K (from NRT 170°C) min. 0,5 kV / AC 50 Hz / 1min. insulated with shrinking tube, or stainless steel sleeve, with ceramic sleeve up to 5 kV depending on the design e.g. single litzes, PTFE-insulated, AWG26/7 or screened hose line 500 mm or 2000 mm (standard) or acc. to customer specification dust- and waterproof versions (IP66), dielectric strength up to 10 kV, screw-in housing