

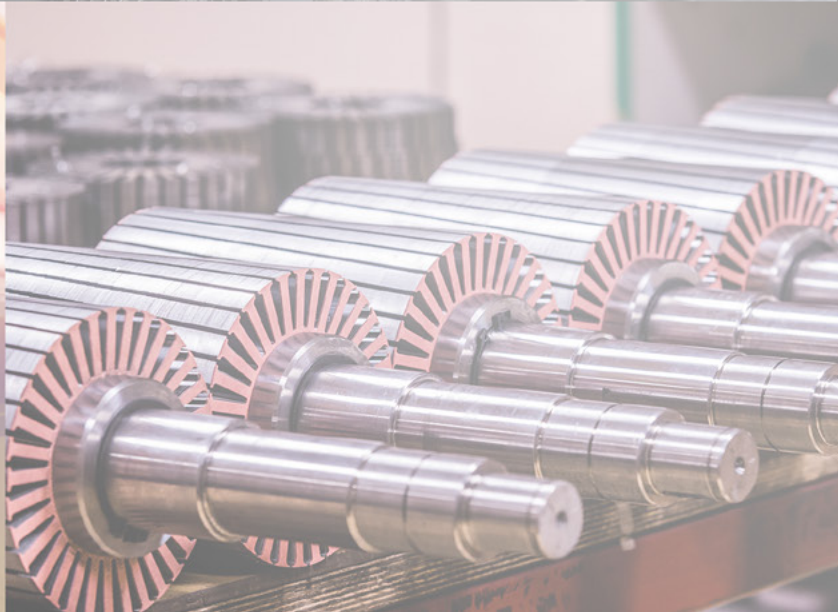


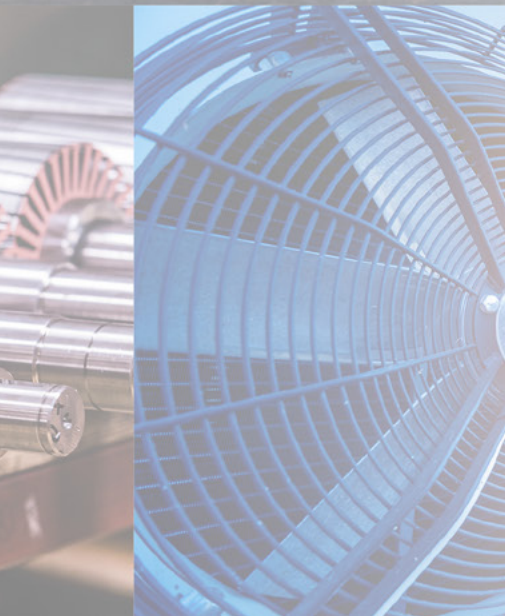
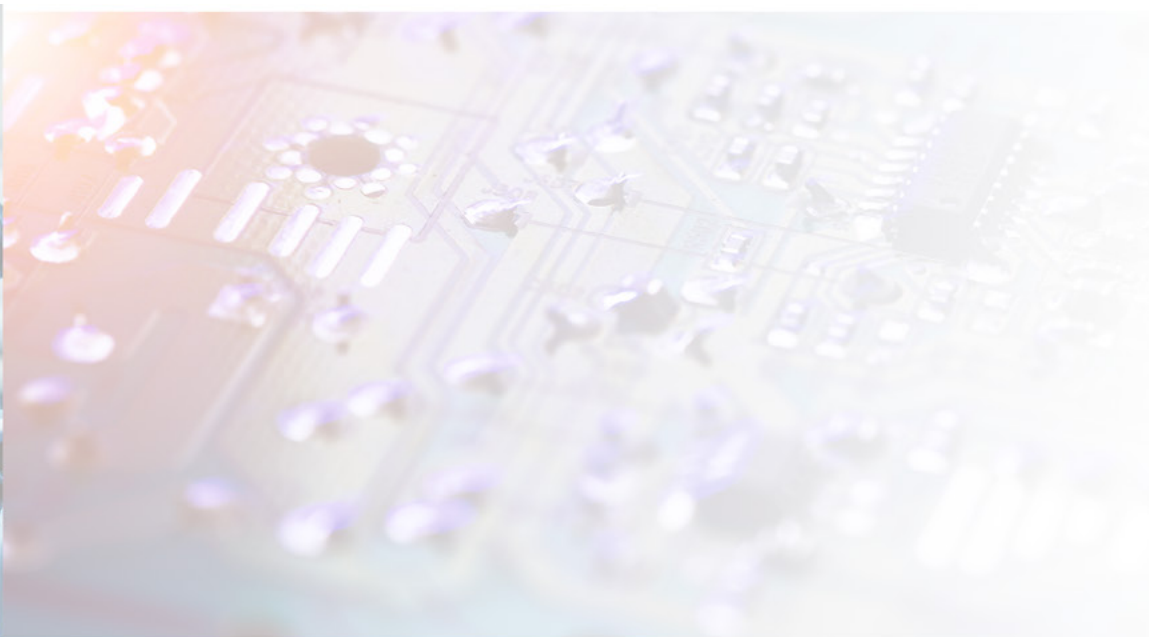
Temperature Probes Brochure

From PT Sensor elements to assemblies, all in one hand

YAGEO Nexensos

Precise, reliable, and optimized measurement





In this brochure for you:

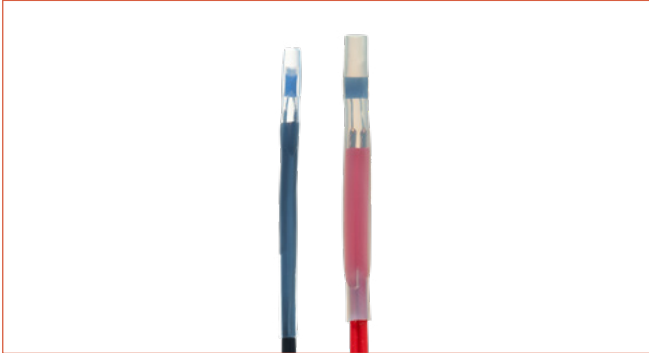
Overview Temperature Probes.....	Page 4
EC-Series	Page 5
MR-Series	Page 6
MT-Series	Page 7
RT-Series	Page 8
SU-Series	Page 9
TH-Series	Page 10

Description	Series	Sensing Element	Housing Design	Housing Material	Temperature Range	Application
	<ul style="list-style-type: none"> ▪ EC 	<ul style="list-style-type: none"> ▪ Pt RTD ▪ NTC Thermistor 	<ul style="list-style-type: none"> ▪ \varnothing 2.1 to 3.2 mm ▪ Flat 	<ul style="list-style-type: none"> ▪ Polymer 	<ul style="list-style-type: none"> ▪ -50 to 250 °C 	<ul style="list-style-type: none"> ▪ E-Motor ▪ Charging
	<ul style="list-style-type: none"> ▪ MR 	<ul style="list-style-type: none"> ▪ Pt RTD 	<ul style="list-style-type: none"> ▪ \varnothing 1.6 to 5.4 mm 	<ul style="list-style-type: none"> ▪ Ceramic 	<ul style="list-style-type: none"> ▪ -50 to 550 °C 	<ul style="list-style-type: none"> ▪ Analytics ▪ Oven ▪ Medical
	<ul style="list-style-type: none"> ▪ MT 	<ul style="list-style-type: none"> ▪ Pt RTD ▪ NTC Thermistor 	<ul style="list-style-type: none"> ▪ \varnothing 1.8 to 6 mm ▪ Further on request 	<ul style="list-style-type: none"> ▪ Stainless Steel ▪ Brass 	<ul style="list-style-type: none"> ▪ -80 to 500 °C 	<ul style="list-style-type: none"> ▪ HVAC ▪ Industrial ▪ Medical
	<ul style="list-style-type: none"> ▪ RT 	<ul style="list-style-type: none"> ▪ Pt RTD ▪ NTC Thermistor 	<ul style="list-style-type: none"> ▪ Ring Terminal: M3, M4 	<ul style="list-style-type: none"> ▪ Stainless Steel 	<ul style="list-style-type: none"> ▪ -50 to 400 °C 	<ul style="list-style-type: none"> ▪ BEV / HEV Bus Bars ▪ Battery Covers ▪ Heat sinks ▪ Panel Enclosures ▪ HVAC
	<ul style="list-style-type: none"> ▪ SU 	<ul style="list-style-type: none"> ▪ Pt RTD ▪ NTC Thermistor 	<ul style="list-style-type: none"> ▪ Square ▪ Attachable (e.g. pipes) ▪ Optional with magnets 	<ul style="list-style-type: none"> ▪ Stainless Steel ▪ Brass ▪ Aluminium 	<ul style="list-style-type: none"> ▪ -50 to 400 °C 	<ul style="list-style-type: none"> ▪ Analytics ▪ Oven ▪ HVAC ▪ Industrial
	<ul style="list-style-type: none"> ▪ TH 	<ul style="list-style-type: none"> ▪ Pt RTD ▪ NTC Thermistor 	<ul style="list-style-type: none"> ▪ BSW: G1/8 to G1/2 ▪ NPT: 1/4 to 3/8 ▪ M4 to M8 ▪ Custom 	<ul style="list-style-type: none"> ▪ Stainless Steel ▪ Brass 	<ul style="list-style-type: none"> ▪ -50 to 400 °C 	<ul style="list-style-type: none"> ▪ HVAC ▪ Industrial ▪ Data Server cooling

YAGEO Nexensos offers a wide range of standard solutions with temperature sensors in protective housings. For larger requests and projects, customization is available for housing size and material.

EC Series – Polymer Encapsulated Temperature Sensors

Encapsulated Temperature Sensors are essential for a variety of temperature measurements requiring high robustness. As a standard product with an operating range from -50 °C up to 250 °C, these sensors are ideal for applications in e-motors for mobility, industrial torque motors, charging stations and sockets, analytical equipment and industrial automation.



Features

- High dielectric strength up to 6 kV
- Water and dustproof acc. to IP69H
- Excellent vibration and shock resistance

Applications

- E-motors for mobility
- Industrial torque motors
- Charging stations and sockets

Configurations

Housing Length	Housing Design	Measuring element
<ul style="list-style-type: none"> ■ 15 mm ■ 30 mm ■ Others on request 	<ul style="list-style-type: none"> ■ D = 2.1 mm ■ D = 3.2 mm ■ Flat ■ Others on request 	<ul style="list-style-type: none"> ■ Pt1000 class B ■ Pt100 class B ■ NTC on request
Cable	Cable length	Electrical connection
<ul style="list-style-type: none"> ■ PTFE, AWG 24 ■ PTFE, AWG 26 ■ PTFE, AWG 30 ■ Others on request 	<ul style="list-style-type: none"> ■ min. 50 mm ■ 200 mm ■ 400 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Semi-Strip ■ Full-Strip ■ Tinned ■ Connector on request

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MR Series – Ceramic Housed Temperature Sensor

Ceramic housed sensors are characterized by their small, round design. They are also characterized by high long-term stability, excellent precision over a wide temperature range, and compatibility.



Features

- Miniaturized versions starting from 1.6 mm
- High vibration and shock resistance
- Excellent long-term stability and low drift

Applications

- Analytics
- Medical
- Industrial

Configurations

Housing Length	Housing Diameter	Measuring element
<ul style="list-style-type: none"> ■ 8 mm ■ 15 mm ■ 25 mm ■ 54 mm ■ Others on request 	<ul style="list-style-type: none"> ■ \varnothing 1.6 mm ■ \varnothing 2.8 mm ■ \varnothing 4.5 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Pt1000 class B ■ Pt1000 class A ■ Pt100 class B ■ Pt100 class A
Cable	Cable length	Electrical connection
<ul style="list-style-type: none"> ■ AWG 30 ■ PTFE, AWG 24 ■ PTFE, AWG 26 ■ Others on request 	<ul style="list-style-type: none"> ■ min. 50 mm ■ 200 mm ■ 400 mm ■ 1000 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Semi-Strip ■ Full-Strip ■ Tinned ■ Connector on request
Circuit Type		
<ul style="list-style-type: none"> ■ 2-wire ■ 3-wire ■ 4-wire 		

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MT Series – Cable Temperature Sensor with Metal Sleeve

Cable temperature sensors housed in metal sleeves are essential for a variety of temperature measurements requiring high robustness. The temperature range depends on the sensor technology and the cable material.

The metallic protective sleeves are highly versatile and available in stainless steel as standard. Other materials on request. The standard sleeves come in diameters starting from 3 mm and lengths from 30 mm. The sensor is securely attached to the feed using press or roll squeeze, or casting methods.



Features

- Miniaturized versions available
- Excellent long-term stability and low drift
- High variety of Standard designs

Applications

- HVAC
- Industrial
- Medical

Configurations

Housing Length	Housing Diameter	Measuring element
<ul style="list-style-type: none"> ■ 30 mm ■ 50 mm ■ 60 mm ■ Others on request 	<ul style="list-style-type: none"> ■ \varnothing 3 mm ■ \varnothing 4 mm ■ \varnothing 5 mm ■ \varnothing 6 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Pt1000 class B ■ Pt1000 class A ■ Pt100 class B ■ Pt100 class A ■ NTC on request
Circuit Type	Cable	Cable length
<ul style="list-style-type: none"> ■ 2-wire ■ 3-wire ■ 4-wire 	<ul style="list-style-type: none"> ■ PVC ■ Silicone ■ Glass fiber ■ PTFE single leads ■ Others on request 	<ul style="list-style-type: none"> ■ 500 mm ■ 1000 mm ■ 2000 mm ■ Others on request
Electrical connection	Special	
<ul style="list-style-type: none"> ■ Semi-Strip ■ End Terminals ■ Connector on request 	<ul style="list-style-type: none"> ■ Dew-point resistant ■ Housing Material Brass ■ Others on request 	

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RT Series – Ring Terminal Temperature Sensor

RT Series of Ring Terminal Temperature Sensors consists of a Pt RTD or NTC Thermistor sensor element mounted in an eyelet tag for fast and accurate surface temperature measurement.



Features

- Eyelet configuration to fit M3 and M4 size
- Protection up to IP69 standard
- Temperature ranges from -50 to 400°C

Applications

- BEV / HEV Bus Bars
- Battery Covers
- Heat sinks
- Panel Enclosures
- HVAC

Configurations

Eyelet Design	Measuring element	Circuit Type
<ul style="list-style-type: none"> ■ M3 ■ M4 ■ Others on request 	<ul style="list-style-type: none"> ■ Pt1000 class B ■ Pt1000 class A ■ Pt100 class B ■ Pt100 class A ■ NTC on request 	<ul style="list-style-type: none"> ■ 2-wire ■ 3-wire ■ 4-wire
Cable	Cable length	Electrical connection
<ul style="list-style-type: none"> ■ PVC ■ Silicone ■ Glass fiber ■ PTFE single leads ■ Others on request 	<ul style="list-style-type: none"> ■ 500 mm ■ 1000 mm ■ 2000 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Semi-Strip ■ End Terminals ■ Connector on request
Special		
<ul style="list-style-type: none"> ■ Dielectric strengths ■ Housing Material ■ Others on request 		

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SU Series – Surface Temperature Sensor with Metal Housing

SU Series are contact temperature sensors and used to measure the temperature on round or flat surfaces. The sensors are available in different housings available for an ease of installation.



Features

- Excellent heat transfer from pipe to probe
- Optimized designs
- Ease of installation
- Optional with magnet mounting

Applications

- HVAC
- Industrial
- Oven
- Analytics

Configurations

Housing Design	Measuring element	Circuit Type
<ul style="list-style-type: none"> ■ M3 ■ M4 ■ Square for M5 ■ Round for pipes ■ Square with magnets ■ Others on request 	<ul style="list-style-type: none"> ■ Pt1000 class B ■ Pt1000 class A ■ Pt100 class B ■ Pt100 class A ■ NTC on request 	<ul style="list-style-type: none"> ■ 2-wire ■ 3-wire ■ 4-wire
Cable	Cable length	Electrical connection
<ul style="list-style-type: none"> ■ PVC ■ Silicone ■ Glass fiber ■ Others on request 	<ul style="list-style-type: none"> ■ 500 mm ■ 1000 mm ■ 2000 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Semi-Strip ■ End Terminals ■ Connector on request
Special		
<ul style="list-style-type: none"> ■ Housing Material ■ Others on request 		

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TH Series – Thread Temperature Sensor with Metal Housing

The TH series consists of temperature sensors based on Pt RTD technology, housed in screw-in enclosures. These sensors are particularly well-suited for a wide range of temperature measurements in liquid immersion applications. With a standard operating range from -50 °C to +400 °C, they are ideal for numerous industrial uses.



Features

- High variety of designs
- Customizable sensor housings and materials
- Fast response time

Applications

- HVAC
- Industrial
- AI and Server Cooling

Configurations

Housing Length	Tip Diameter	Thread
<ul style="list-style-type: none"> ■ 50 mm ■ 60 mm ■ 100 mm ■ Others on request 	<ul style="list-style-type: none"> ■ \varnothing 4 mm ■ \varnothing 5 mm ■ \varnothing 6 mm ■ Others on request 	<ul style="list-style-type: none"> ■ G1/4 ■ G1/2 ■ 1/4 NPT ■ 3/4 NPT ■ M4 ■ Others on request
Measuring element	Circuit Type	Cable
<ul style="list-style-type: none"> ■ Pt1000 class B ■ Pt1000 class A ■ Pt100 class B ■ Pt100 class A ■ NTC on request 	<ul style="list-style-type: none"> ■ 2-wire ■ 3-wire ■ 4-wire 	<ul style="list-style-type: none"> ■ PVC ■ Silicone ■ Glass fiber ■ PTFE single leads ■ Others on request
Cable length	Electrical connection	Special
<ul style="list-style-type: none"> ■ 500 mm ■ 1000 mm ■ 2000 mm ■ Others on request 	<ul style="list-style-type: none"> ■ Semi-Strip ■ End Terminals ■ Connector on request 	<ul style="list-style-type: none"> ■ Housing Material ■ Redundant sensing elements ■ Others on request

YAGEO Nexensos offers a wide range of standard solutions with temperature sensors in protective housings. For larger requests and projects, customization is available for housing size and material.

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YAGEO Nexensos GmbH

Reinhard-Heraeus-Ring 23
63801 Kleinostheim
Germany

<https://www.yageogroup.com/>

YAGEO Nexensos worldwide

nexensos.germany@yageo.com
nexensos.america@yageo.com
nexensos.china@yageo.com
nexensos.japan@yageo.com
nexensos.korea@yageo.com

