

## Broad range of NTC thermistors for temperature sensing



Epoxy-coated, glass-sealed, surface-mount, and ring lug NTC thermistors provide temperature sensing in electronic applications

## **Product description**

Eaton's epoxy-coated NTC thermistors are cost-effective temperature sensors that meet the temperature sensing needs of a wide range of electronic applications. The glass-coated and encapsulated NTC thermistors offer long-term stability and reliability, as well as fast thermal responses. They are suited for temperature measurement in harsh temperatures (>250 °C), corrosive atmospheres, or harsh environments.

Eaton's surface-mounted thermistor elements are designed for use on PCBs and ICs. They feature metalized terminations suitable for wire bonding, epoxy, and soldering. Key applications include IoT, commercial appliances, portable energy storage systems, and UPS. Eaton's ring lug NTC thermistors is a cost-effective temperature sensor that meets the surface temperature sensing needs of a broad range of applications, leveraging the different resistances, beta values, and tolerances of Eaton's NRSE epoxy-coated family.

## Features and benefits

- Multiple packaging types and lead configurations offer an ideal balance of performance and cost
- Epoxy coated solutions for lower cost, glass sealed types for demanding applications, and ring lug options for surface temperature measurement
- High-temperature options in glass-sealed and encapsulated constructions
- A wide range of resistances and beta values, ideal for both cold and hot typical operating environments
- Ring lug assemblies for surface temperature sensing with multiple lug options
- Customized options exist for high-volume applications
- Terminated chip products for customers looking to package as they see fit or place on their printed circuit board



## **Applications**

Power & energy

Medical

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	SMD	D Glass encapsulated		Epoxy coated						Ring lug
	NTxx	NDBG	NRBG	NRBE	NRCE	NRNE	NRSE	NRMx	NRLx	NRGx
White goods	Х	Х	Х	Х	Х	Х	Х	Х	Х	
Home appliances	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Smart wearable devices	Х									
Power banks									Х	
Tablets, laptops and PCs	Х	Х	Х	Х	Х	Х	Х	Х	Х	
Photovoltaic products (sensors, junction box,etc)	Х		Х	Х	х	х	Х	Х	х	х
Wind (control units, backup safety systems)	Х		Х					Х	Х	х
Grid & power distribution (smart grid)	Х	х	Х							х
Energy storage (battery and supercapacitor)	Х			х	Х	Х	Х	Х	Х	х
Electric vehicle charging and infrastructure	х		х	х	х	х	Х	Х	Х	х
Uninterruptible power supply	Х	х	х	х	х	х	Х	Х	Х	Х
Power converters and inverters	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Smart meters (water, gas, electric)			х	х	х	х	Х	Х	Х	Х
Imaging systems (X-ray, CT, MRI)	Х	х	х	х	х	х	Х	Х	Х	х
Medical appliances (refrigeration, heating)	х		х	х	х	х	х	Х	Х	х
Meters (blood glucose, wearables)	Х		х	х	х	х	Х	Х	Х	
Thermometers							Х	Х		
Sterilizers							Х	х		
Satellite and GPS systems		х	х	х	х	х	Х	Х	Х	х
Smart thermostats and climate control	Х		Х	Х	х	х	Х	Х	Х	
Agriculture and marine monitoring equipment and instrumentation	х		х	х	х	х	Х	Х	Х	х
Energy measurement and metering	Х		х	х	х	х	Х	Х	Х	Х
Battery management systems	Х		х	х	х	х	Х	Х	Х	
Factory automation, process control and instrumentation	х		х	х	х	х	Х	Х	Х	х
Manufacturing equipment and fabrication tools	х		х	х	х	х	Х	х	Х	х
Lighting systems and ballasts; LEDs	Х	х								
Heating, ventilation, air conditioning systems, refrigeration and freezers	х		х	х	х	х	Х	х	х	х
Electric motors, motor control, motion control	Х		х	х	х	х	Х	Х	Х	х
Safety and detection systems (fire, gas, thermostat)			Х	Х	Х	Х	х	х	Х	
Survelliance and monitoring systems	X							Х	Х	х

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