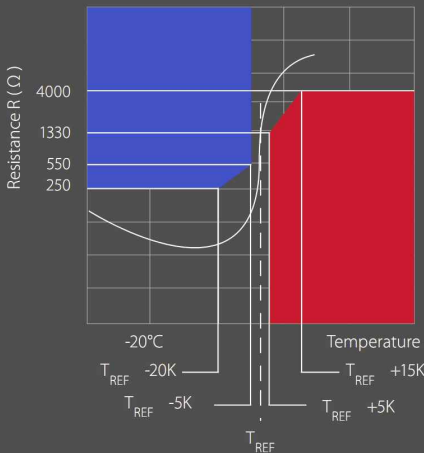
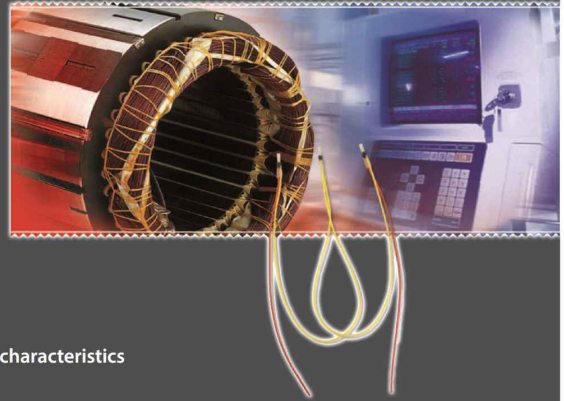


Type series PTC thermistors

Installation and functions

Where possible, the PTCs are to be inserted parallel to the coil. As a result, when shaping the coil ends, the mechanical stress of the PTCs is minimised. In so doing, the *KYNAR*® shrink cap is highly suited to this purpose due to its mechanical stability (no cold flow in contrast to Teflon®). In connection with the miniature pill (Ø 1.9 mm) response times of 5 to 10 seconds (max.) are achieved depending on the version.



General characteristics

Advantageous values: Rated response temperature T_{REF} 60 °C to 190 °C*, in each case in increments of 10 K.

| Temperature range | Resistance | Measured voltage [V _{DC}] |
|----------------------------------|---------------|-------------------------------------|
| -20 °C to T_{REF} -20 K | 20 Ω to 250 Ω | ≤ 2,5 V |
| Temperature range 90 °C - 160 °C | | |
| T_{REF} -5 K | ≤ 550 Ω | ≤ 2,5 V |
| T_{REF} +5 K | ≥ 1.330 Ω | ≤ 2,5 V |
| T_{REF} +15 K | ≥ 4.000 Ω | ≤ 7,5 V pulsed |

Dielectric strength of the insulation $U_{eff} = 2.500$ V

* These parameters relate to T_{REF} from 90 °C to 160 °C. Resistance values for $T_{REF} < 90$ °C and > 160 °C are available on request.

MZ6

1:1



With connector cables; insulation PVDF (KYNAR®)

| | |
|------------------------------------|--------------------|
| Insulation material | PVDF (KYNAR®) |
| Response temperature | 60 °C – 190 °C |
| Operating voltage range | 2.5V DC – 24.0V DC |
| max. permissible operating voltage | 30.0V DC |
| max. recommended sensor voltage | 2.5V DC – 7.5V DC |
| High voltage resistance | 2.5 kV |
| Length of the insulation cap | 12.0 mm |
| Diameter | ≤ 2.5 mm |

MZ6P

1:1



With connector cables; insulation PTFE

| | |
|------------------------------------|--------------------|
| Insulation material | PTFE |
| Response temperature | 60 °C – 190 °C |
| Operating voltage range | 2.5V DC – 24.0V DC |
| max. permissible operating voltage | 30.0V DC |
| max. recommended sensor voltage | 2.5V DC – 7.5V DC |
| High voltage resistance | 2.5 kV |
| Length of the insulation cap | 12.0 mm |
| Diameter | ≤ 2.0 mm |

MZ6T

1:1



With connector cables; insulation Epoxy

| | |
|------------------------------------|--------------------|
| Insulation material | Epoxy |
| Response temperature | 60 °C – 190 °C |
| Operating voltage range | 2.5V DC – 24.0V DC |
| max. permissible operating voltage | 30.0V DC |
| max. recommended sensor voltage | 2.5V DC – 7.5V DC |
| High voltage resistance | 2.5 kV |
| Length of the crimp cable lug | max. 20.0 mm |
| Diameter | ≤ 8.0 mm |

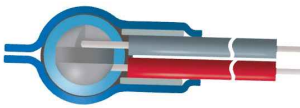
MZ6L

1:1



With connector cables; insulation in the screw on housing

| | |
|------------------------------------|-----------------------------------|
| Insulation material | Fully insulated aluminium housing |
| Response temperature | 60 °C – 190 °C |
| Operating voltage range | 2.5V DC – 24.0V DC |
| max. permissible operating voltage | 30.0V DC |
| max. recommended sensor voltage | 2.5V DC – 7.5V DC |
| High voltage resistance | 2.5 kV |
| Housing height | 8.0 mm |
| Thread length | M 4 / 5.0 Nm |
| Width across flats / Max. torque | 10 / 2 Nm |



Thermistors



PTC thermistors

PTC thermistors are used for temperature monitoring. They are optimally designed for direct installation into the windings of electric motors and transformers. When employed with compatible circuitry (electronic assemblies, heat sinks, etc.), PTC thermistors prevent overheating of the devices in which they are installed. We offer a selection of insulation sleeves, encasements and fastener-mountings to fit your specific application.

Customised designs

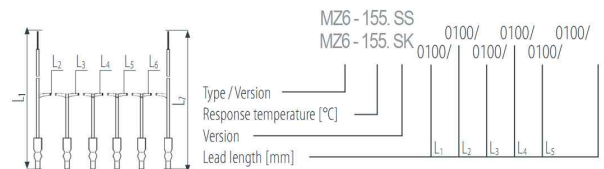
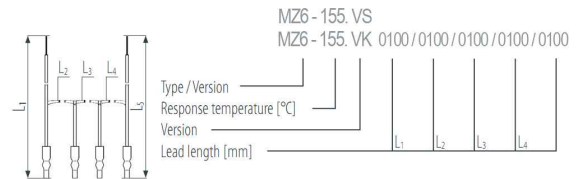
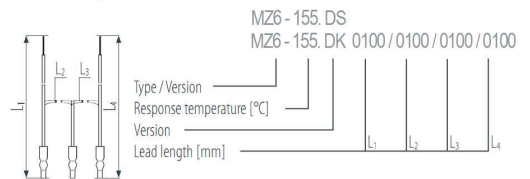
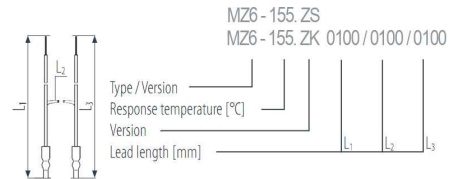
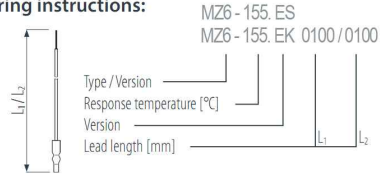
Design K - customised – variations/additions possible upon request:

- Colour coding
- Cable insulation material or cable cross-section
- Cable-end assembly
- Connection technology
- Dielectric strength of the insulation (e.g. suitable for installation in Class II applications)

Advantages

- Small dimensions + mechanical stability
- Fast response
- Temperature-resistance characteristics tailored to the application in question

Ordering instructions:



Version: ES: E-Single, S-Standard (520mm wire length)
EK: E-single, K-custom, Z-dual, D-triple, V-quad, S-sixfold

Colour-coding dependent on temperature according to DIN VDE V0898-1-401:2016 and IEC60034-11:2004

| 60 | 70 | 80 | 90 | 100 | 105 | 110 | 115 | 120 | 125 | 130 | 135 | 140 | 145 | 150 | 155 | 160 | 165 | 170 | 180 | 190 |
|-------|-------|-------|-------|-----|------|-------|-------|------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| white | white | white | green | red | blue | brown | blue | grey | red | blue | red | white | white | black | blue | blue | blue | white | white | black |
| grey | brown | white | green | red | grey | brown | green | grey | green | blue | brown | blue | black | black | black | red | brown | green | red | brown |

* normal trade description including motor protection sensors, PTC thermistors, PTC sensors, PTCs, temperature sensors, etc.

