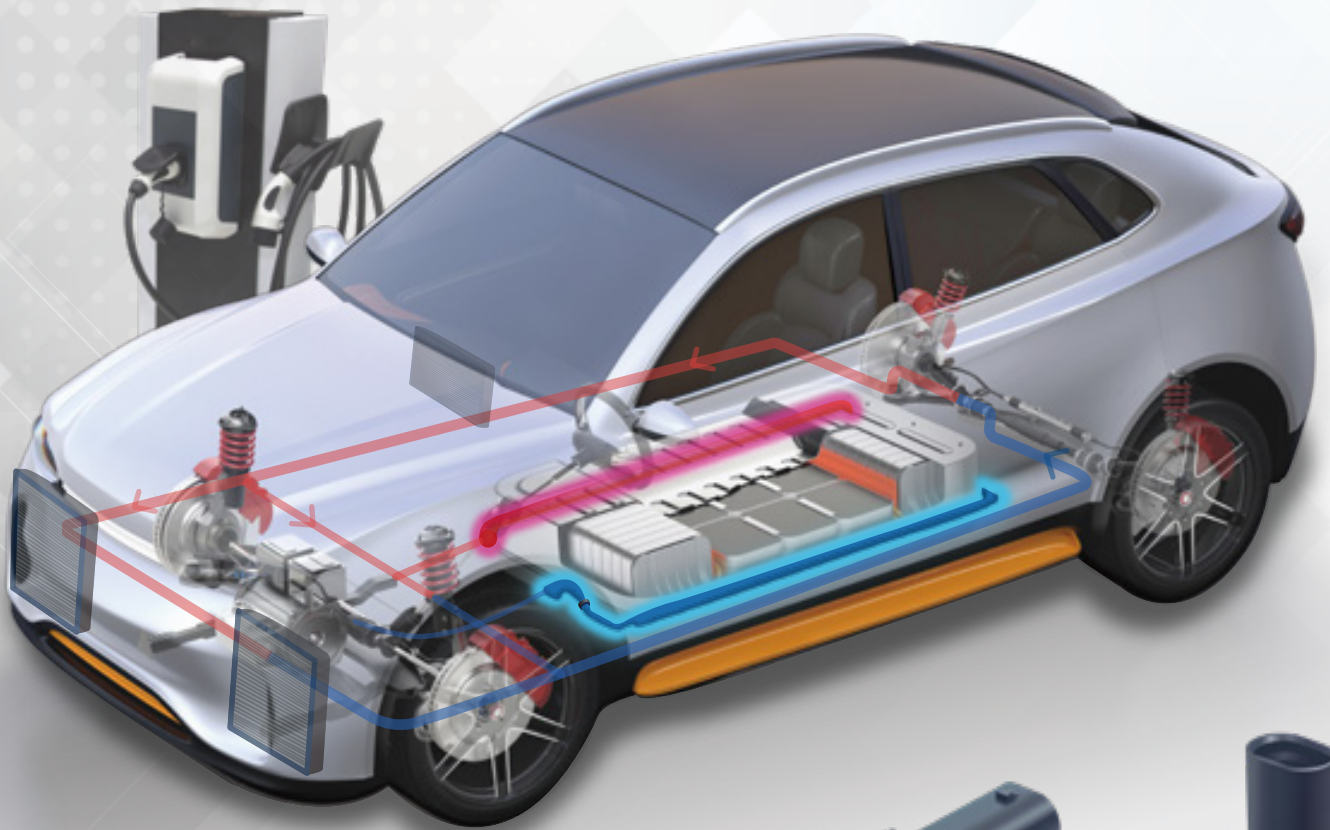


Electric Vehicle Cooling System Application

THINKING
SENSOR

Electric Vehicle Application



Electric Vehicle Cooling System Application

Inline Flow-Through Fluid Temperature Sensor

Features

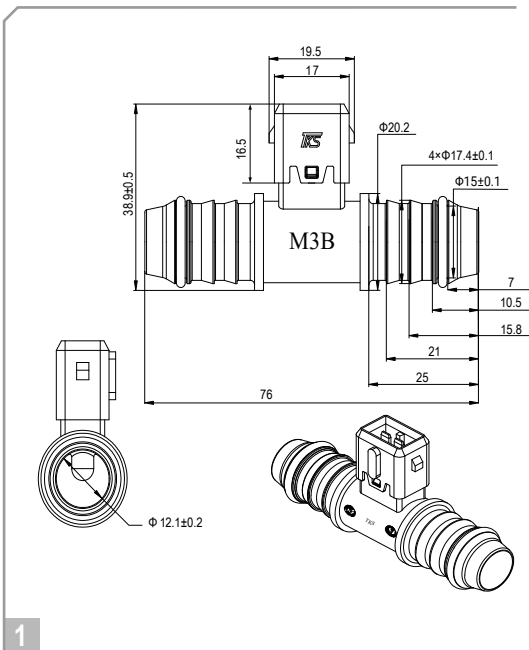
- High measurement accuracy with the temperature shift controlled within $\pm 1^{\circ}\text{C}$
- Connector integration with the tube saves installation spaces
- Robust hydrolysis-resistant plastic tube
- Tube sizes, connectors, and electrical characteristics are customizable

Applications

- EV battery pack coolant loop temperature monitoring

Mating Connector

- TE 2209441
- Tyco/ AMP 282189



Feature | Hose barb fitting for mating with rigid polymer hose

Operation Temperature | -40°C to $+125^{\circ}\text{C}$

Thermal Time Constant | Around 15 seconds (in water)

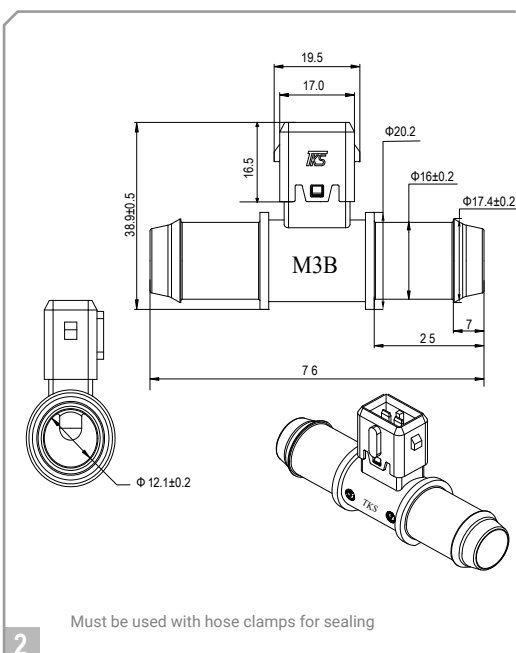
R Value & B Value Option 1 | R25:100K Ω $\pm 1\%$, B25/50: 3950K $\pm 1\%$

R Value & B Value Option 2 | R25:10K Ω $\pm 1\%$, B25/85: 3977K $\pm 1\%$

Insulation Test | DC 500V 100M Ω (Min)

Hi-Pot Test | AC 500V 0.5mA (Max)

Moisture Resistance | Pass 85°C 85% RH x 1000 hours test



Feature | Designed for mating with elastomeric hose

Operation Temperature | -40°C to $+125^{\circ}\text{C}$

Thermal Time Constant | Around 15 seconds (in water)

R Value & B Value Option 1 | R25:100K Ω $\pm 1\%$, B25/50: 3950K $\pm 1\%$

R Value & B Value Option 2 | R25:10K Ω $\pm 1\%$, B25/85: 3977K $\pm 1\%$

Insulation Test | DC 500V 100M Ω (Min)

Hi-Pot Test | AC 500V 0.5mA (Max)

Moisture Resistance | Pass 85°C 85% RH x 1000 hours test

Must be used with hose clamps for sealing

Electric Vehicle Cooling System Application

Plug-In Type Temperature Sensor for Quick Connector

Features

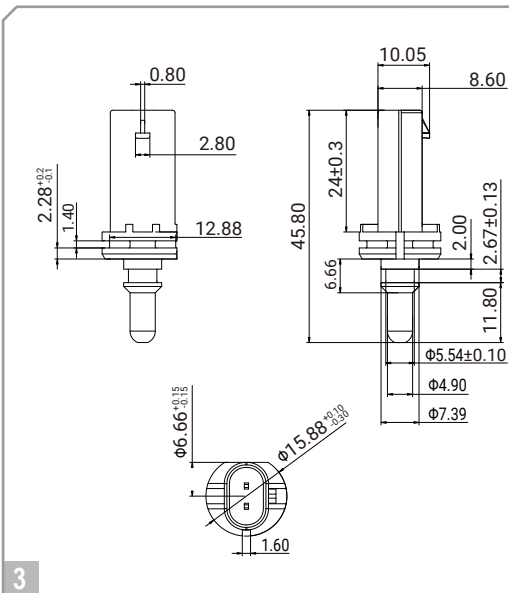
- High measurement accuracy with the temperature shift controlled within $\pm 1^\circ\text{C}$
- Excellent long-term thermal stability
- Easy installation with a compatible quick connector simplifies the assembly process
- Two structures for different quick connector types provide design and installation flexibility

Applications

- EV battery pack coolant loop temperature monitoring

Mating Connector

- TE 1718643



3

Feature | 180° structure for assembling with a quick connector

Operation Temperature | -40°C to $+125^\circ\text{C}$

Thermal Time Constant | Around 15 seconds (in water)

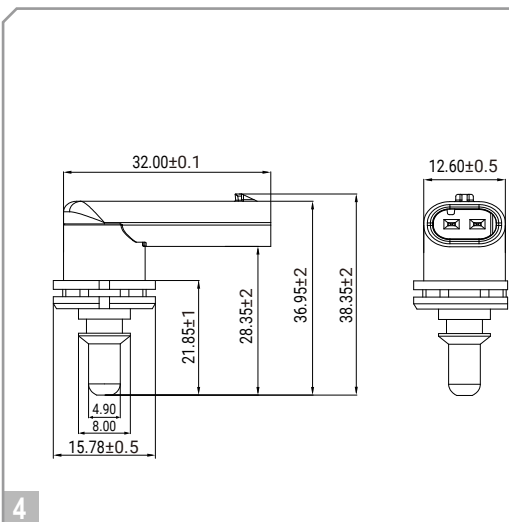
R Value | $R_{25}=10\text{K}\Omega \pm 1\%$

B Value | $B_{25/85}=3435\text{K} \pm 1\%$

Insulation Test | DC 500V 100M Ω (Min)

Hi-Pot Test | AC 500V 1mA (Max)

Moisture Resistance | Pass 85°C 85% RH x 1000 hours test



4

Feature | 90° structure for assembling with a quick connector

Operation Temperature | -40°C to $+125^\circ\text{C}$

Thermal Time Constant | Around 15 seconds (in water)

R Value | $R_{25}=10\text{K}\Omega \pm 1\%$

B Value | $B_{25/85}=3435\text{K} \pm 1\%$

Insulation Test | DC 500V 100M Ω (Min)

Hi-Pot Test | DC 500V 0.5mA (Max)

Moisture Resistance | Pass 85°C 85% RH x 1000 hours test