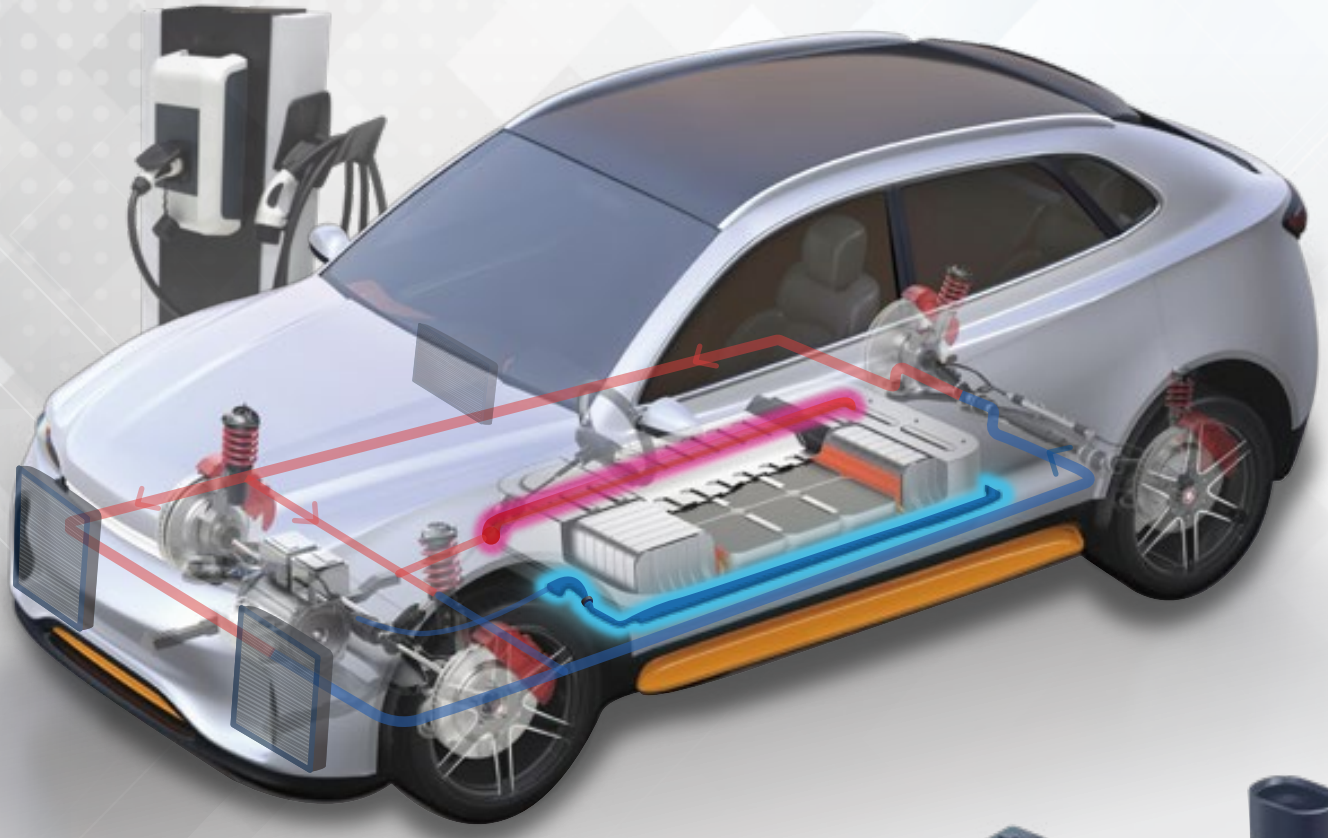
Electric Vehicle Cooling System Application

THINKING SENSOR

Electric Vehicle Application



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THINKING Website

Electric Vehicle Cooling System Application

Inline Flow-Through Fluid Temperature Sensor

Features

- High measurement accuracy with the temperature shift controlled within ±1°C
- Connector integration with the tube saves installation spaces
- Robust hydrolysis-resistant plastic tube
- Tube sizes, connectors, and electrical characteristics are customizable

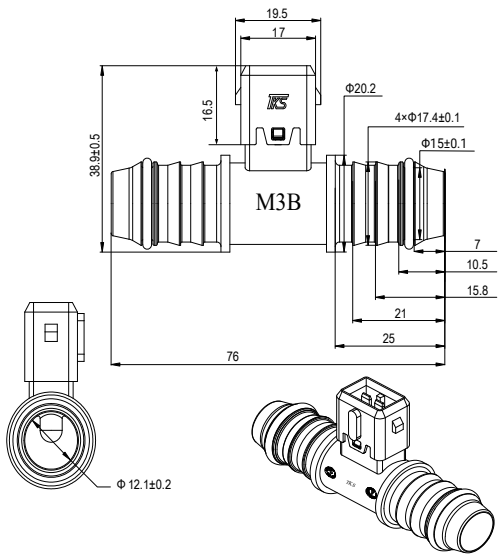
Applications

- EV battery pack coolant loop temperature monitoring

Mating Connector

- TE 2209441
- Tyco/ AMP 282189

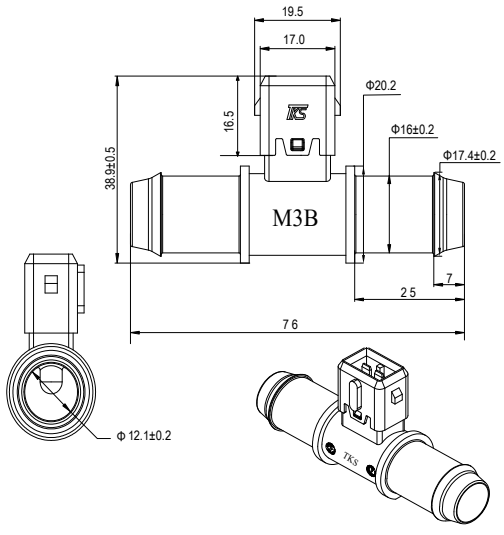
1 **Part Number:** NTSB3103FV045



Feature | Hose barb fitting for mating with rigid polymer hose

Operation Temperature | -40°C to +125°C
Thermal Time Constant | Around 15 seconds (in water)
R Value & B Value Option 1 | R25:100KΩ±1%, B25/50: 3950K±1%
R Value & B Value Option 2 | R25:10KΩ±1%, B25/85: 3977K±1%
Insulation Test | DC 500V 100MΩ (Min)
Hi-Pot Test | AC 500V 0.5mA (Max)
Moisture Resistance | 85°C / 85% RH * 1000 hours

2 **Part Number:** NTSB3103FV046



Must be used with hose clamps for sealing

Feature | Designed for mating with elastomeric hose

Operation Temperature | -40°C to +125°C
Thermal Time Constant | Around 15 seconds (in water)
R Value & B Value Option 1 | R25:100KΩ±1%, B25/50: 3950K±1%
R Value & B Value Option 2 | R25:10KΩ±1%, B25/85: 3977K±1%
Insulation Test | DC 500V 100MΩ (Min)
Hi-Pot Test | AC 500V 0.5mA (Max)
Moisture Resistance | 85°C / 85% RH * 1000 hours

Dimensions in mm

Electric Vehicle Cooling System Application

Plug-in Type Temperature Sensor for Quick Connector

Features

- High measurement accuracy with the temperature shift controlled within ±1°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

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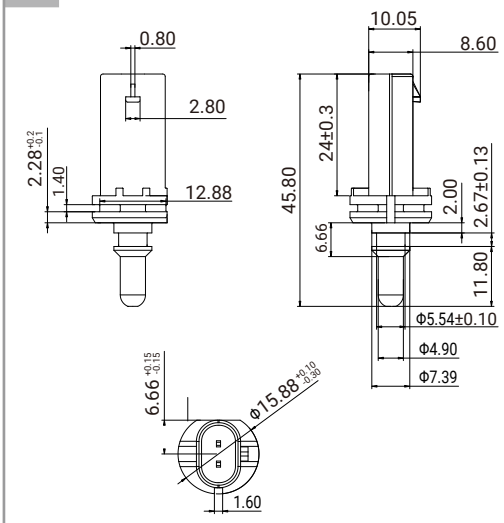

Feature | 180° structure for assembling with a quick connector

Operation Temperature | -40°C to +125°C
Thermal Time Constant | Around 15 seconds (in water)
R Value | R25=10KΩ±1%
B Value | B25/85=3435K±1%
Insulation Test | DC 500V 100MΩ (Min)
Hi-Pot Test | AC 500V 1mA (Max)
Moisture Resistance | 85°C / 85% RH * 1000 hours

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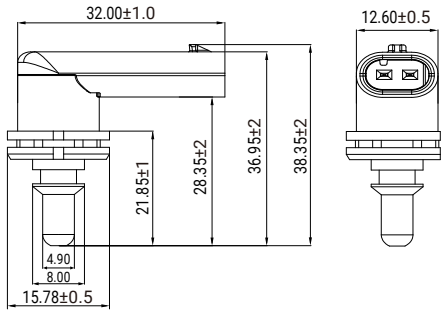

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Dimensions in mm