

Automotive Ethernet Connector

Our **automotive-compliant** solution addresses the need for ethernet connectors with **pluggable connection interfaces** to enhance the **reliability of in-vehicle networking applications**.

ENNOVI™

SOLDERLESS CONNECTION



Lower risk of errors occurring due to its solder-free assembly.

HIGH-SPEED DATA TRANSMISSION



Transfer data at speeds of up to 10Gbps.

AUTOMOTIVE-COMPLIANT



Conforms to automotive performance requirements.

APPLICATIONS

- + Electric vehicles – Autonomous Driving
- + Commercial transportation

RIGHT ANGLE CONNECTOR WITH PRESS-FIT PINS (GROUND)

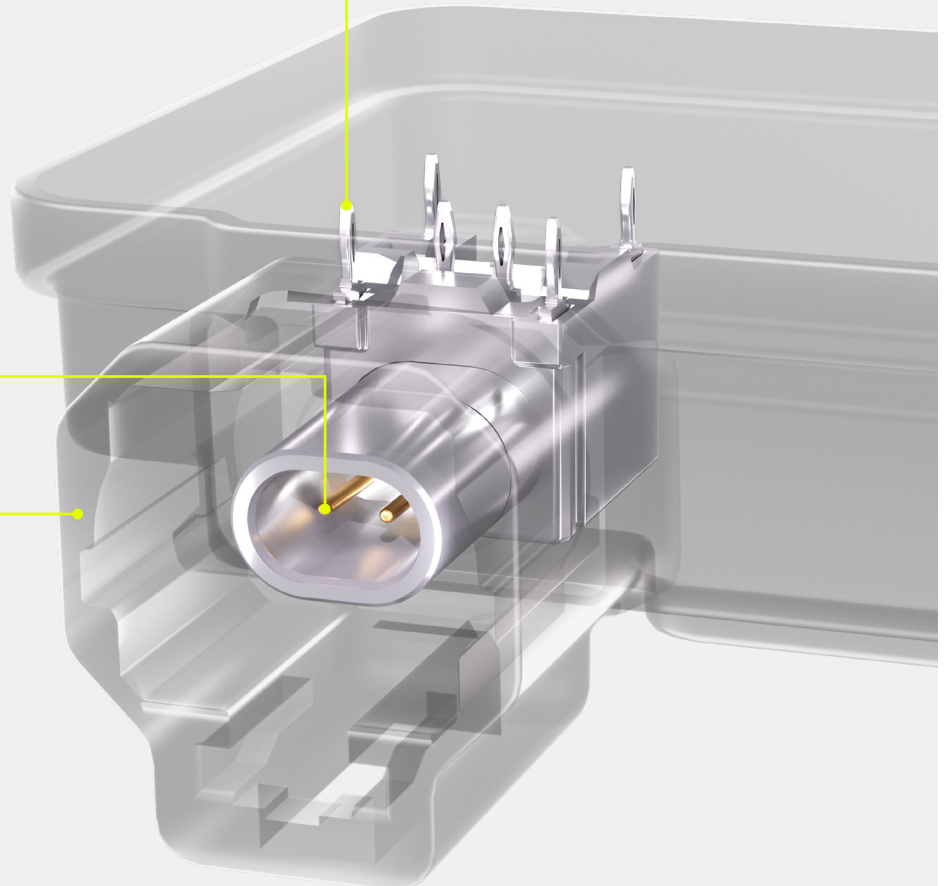
- + Automotive-approved Press-Fit technology: 0.4 mini EON.
- + Option for IndiCoat™ plating: a whisker mitigation plating technology developed by ENNOVI.
- + Mates to Ethernet plug connector.

PRESS-FIT CONTACTS (SIGNAL)

- + 2-pin 100Ω differential signal pair.
- + Standardized interface compatible with automotive performance requirements.
- + High-speed data transmission, up to 10 Gbps.
- + Automotive Ethernet Protocol - 100BASE-T1, 1000BASE-T1, 2.5/5/10GBASE-T1.

HOUSING

- + The integrated solution mitigates shock and vibration, with high operational temperature.



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MECHANICAL PERFORMANCE

MATING CYCLES	≥25
CONNECTOR ENGAGEMENT FORCE	≤45 N
CONNECTOR DISENGAGE FORCE	≥110 N (lock enabled)
POLARIZATION EFFECTIVENESS	≥80 N

ENVIRONMENTAL PERFORMANCE

TEMPERATURE RANGE	-40°C to +105°C
VIBRATION	DIN-EN-60068-2-64 Severity 1 USCAR-2 Rev 7, V1
MECHANICAL SHOCK	DIN-EN-60068-2-27 Severity 1 USCAR-2 Rev 7, V1
THERMAL SHOCK	USCAR-2 Rev 7 (-40°C to +105°C)
HIGH TEMPERATURE EXPOSURE	DIN IEC 60068 2-2 (Temp +105°C)
TEMPERATURE/ HUMIDITY	USCAR-2 Rev 7

ELECTRICAL PERFORMANCE

IMPEDANCE	100 Ω
FREQUENCY	Up to 10 GHz
RETURN LOSS	≥30 dB, 0.01 GHz to 3 GHz ≥25 dB, 3 GHz to 6 GHz ≥20 dB, 6 GHz to 10 GHz
NEAR END CROSSTALK	≥60 dB, 0.01 GHz to 7.5 GHz ≥45 dB, 7.5 GHz to 20 GHz
FAR END CROSSTALK	≥60 dB, 0.01 GHz to 7.5 GHz ≥45 dB, 7.5 GHz to 20 GHz
PROTOCOL SUPPORTED: ETHERNET	100BASE-T1, 1000BASE-T1, 2.5/5/10GBASE-T1
INSULATION RESISTANCE	≥100 MΩ
SIGNAL CONTACT RESISTANCE	≤40 mΩ
OUTER CONTACT RESISTANCE	≤24 mΩ
WORKING VOLTAGE	≤60V DC
POWER CURRENT	≤1.5A DC