

Vehicle Sensing Solutions: External Acoustic Noise Cancellation (ANC) Sensors >

Molex External ANC Sensors, which are phantom-powered slave units employing differential pairs, convert airborne noise into digital electrical signals that generate a cancellation soundwave to reduce unwanted noise within the vehicle passenger compartment

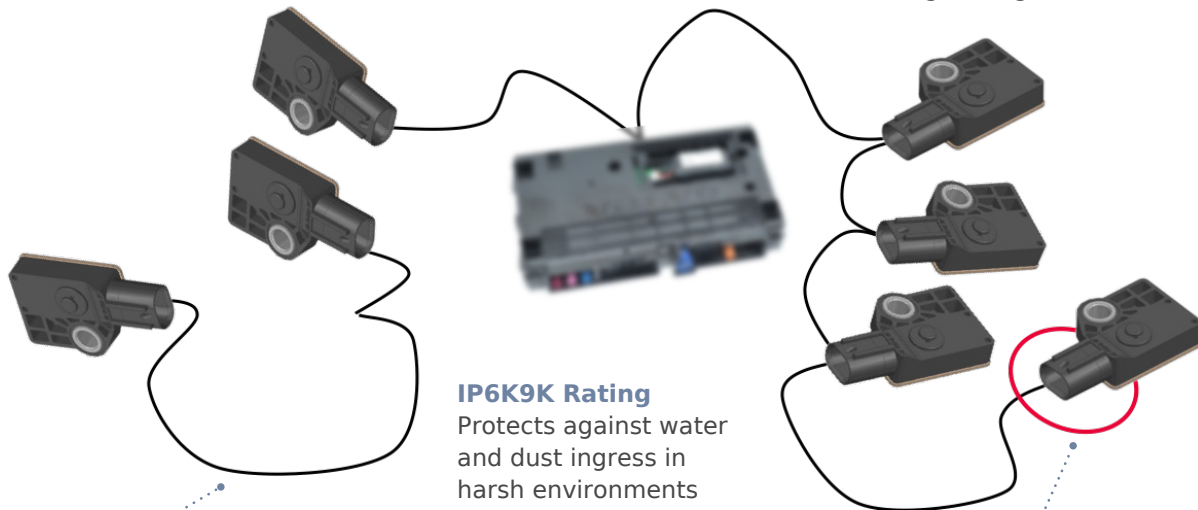


External ANC Sensors

FEATURES AND ADVANTAGES

Low system latency

Delivers superior noise cancellation because the time between the sensor receiving the excitation and the module receiving the signal is extremely low



Daisy-chained sensors

Eliminates heavy star-patterned cabling and reduces harness weight of the vehicle

IP6K9K Rating

Protects against water and dust ingress in harsh environments

Mates with 1x4 sealed Mini50 Connector

Provides 50% space savings over traditional USCAR 0.64mm connectors. Is ideal for vehicle interiors. Delivers superior signal integrity performance

MARKETS AND APPLICATIONS

Automotive

In-cabin noise reduction
Autonomous vehicles
Advance driver assistance systems (ADAS)



In-Vehicle Cabin



Mechanic Laptop Engine



Future Car

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SPECIFICATIONS

Microphone Technical Specifications

Very low distortion:

<1% Total harmonic distortion + noise @ 1kHz

Acoustic overload point: 133 dB

Sensitivity: -46 +/- 2 dBFS @ 1kHz

Noise floor: 29 dB SPL

High signal-to-noise ratio: 65dB(A)

Bandwidth: 45 Hz to >20kHz

Omnidirectional

Mechanical Technical Specifications

Connector interface drawing:

Molex drawing 349684800

Mini50 Sealed 1x4 – see ordering information

Installation force into vehicle position should not exceed 25N.

Retention force greater than 15N prior to nut and screw fastening

Retained in place by M6 screw and nut

The torque value of screw and nut shall be 10±2Nm

Environmental

Temperature classification: -40° to 85°C

Protection classification: IP6K9K

(dust and high-pressure spray) per ISO 20653

Harnessing Expectations

2x jacketed unshielded twisted pairs for 100 Mbps transmission

Twisted pair cable types must comply with SAE-J3117 standard and the Open Alliance Specification for Communication

Channel 2.0 = equivalent to 100BaseT1

Digital matched differential impedance – 100 Ohms

Sensor units are daisy-chained together

ORDERING INFORMATION

Part No.	Description
213840-0001	Molex Sensor Assembly
34967-4001	1x4 Mini50 Sealed Connector, Key A with CPA
34967-4051	1x4 Mini50 Sealed Connector, Key A, with Circuits 1 and 2 Plugged (End Node)
34905-6447	CTX50 Sealed Connector, Silver Plated, Large Grip
	Leoni Dacar 546 – 2x0.35/Cu/T125

www.molex.com/link/ancsensors.html