DSF Series

Automotive PM2.5
In-Cabin Sensor

Accurate particulate matter sensing for the automotive environment

Designed specifically to meet the needs of OEM manufacturers for a low cost dust sensor with Lin2.2 Output for in-bulkhead mounting.

Features

- An affordable dust sensing solution for OEMs
- A reliable sensor design based on extensive research, field testing, engineering and manufacturing expertise
- Lin bus 2.2
- Embedded filtration for longer life
- Easy to mount with external tabs
- AEC-Q200 qualified components
- Extended operating temperature range
- Laser Light Scattering Technology
- Sensors shipped factory-calibrated
- Custom housing and connector subject to commercial consideration

Amphenol
Advanced Sensors
DSF Series Specifications

Sensing Method:
Mie Light Scattering with Laser Diode Source and Photodiode

Measurement Range:
0 to 500 µg/m³

Dimensions:
Overall 78 x 51 x 33mm (typical)

Accuracy:
< 100µg/m³ ±15µg/m³
≥ 100µg/m³ ±15%

Resolution:
1 µg/m³

Calibration Media:
Calibrated KCl

Noise:
≤ 45dB (D = 5cm)

Calibration Interval:
Not required

Response Time:
15 sec @ T63.2

Signal Update:
Every 1 second

Signal Averaging:
Rolling 20 second average

Warm Up Time:
< 5 sec (operational)
1 minute (maximum accuracy)

Operating Conditions:
-40°C to 80°C

Storage Conditions:
-40°C to 85°C

Guaranteed Performance Range:
-20°C to 60°C

Output:
Lin bus 2.2
Filtered PM2.5, sensor temp

Protection:
IP52

Power Supply Requirements:
9V~16VDC

Pin Designations:
+IGN2
Lin
Ground

Warranty Terms:
Subject to contract, nominally 12 months

Compliance:
REACH, ROHS compliance
All components are AEC-Q qualified

Ordering Information

Please discuss your specific needs with Amphenol Advanced Sensors, as other configurations are possible, subject to commercial consideration.

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<tr>
<th>Part Number</th>
<th>Output</th>
<th>Operating Voltage</th>
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<tbody>
<tr>
<td>DSF037A-001</td>
<td>Lin bus 2.2</td>
<td>9 ~ 16V</td>
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Amphenol Advanced Sensors

www.telaire.com
www.amphenol-sensors.com

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