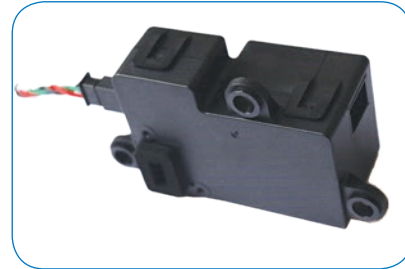


DSF Series

Automotive PM2.5 In-Cabin Sensor

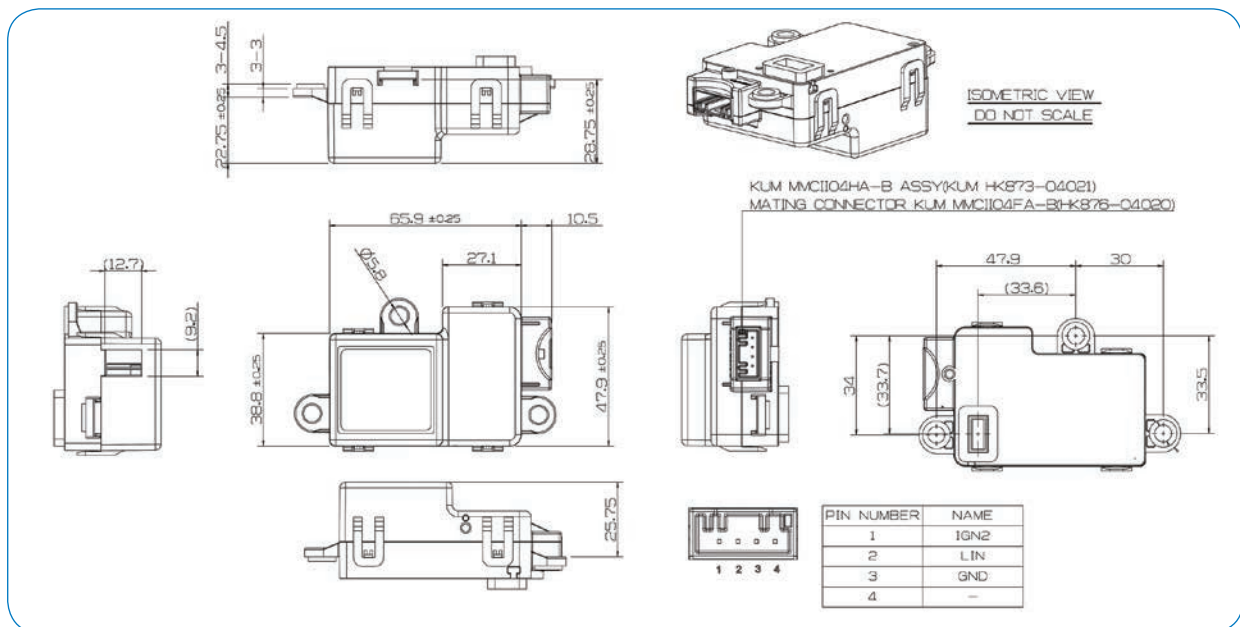


Accurate particulate matter sensing for the automotive environment

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



DSF Series Specifications

Sensing Method:

Mie Light Scattering with Laser Diode Source and Photodiode

Measurement Range:

0 to 500 $\mu\text{g}/\text{m}^3$

Dimensions:

Overall 78 x 51 x 33mm (typical)

Accuracy:

< 100 $\mu\text{g}/\text{m}^3$ $\pm 15\mu\text{g}/\text{m}^3$
 $\geq 100\mu\text{g}/\text{m}^3$ $\pm 15\%$

Resolution:

1 $\mu\text{g}/\text{m}^3$

Calibration Media:

Calibrated KCl

Noise:

$\leq 45\text{dB}$ (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.

Part Number	Output	Operating Voltage	
DSF037A-001	Lin bus 2.2	9 ~ 16V	Integrated Connector (APTIV, HK873-04021)

Amphenol
Advanced Sensors

www.telaire.com

www.amphenol-sensors.com

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