



## LS3-CO2-100ppm

High sensitivity NIDR Single Channel  
Carbon Dioxide detector

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### Product highlights

0-99.9 ppm concentration range

Single channel detector for highest sensitivity

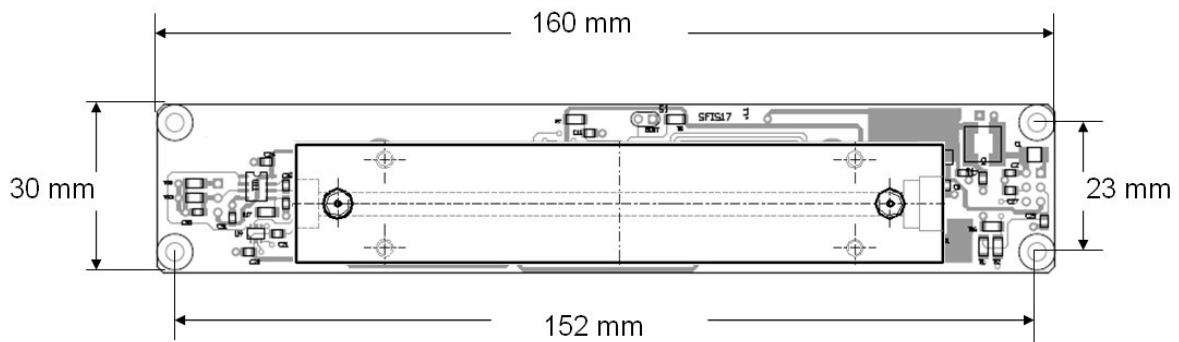
Easy to integrate in OEM systems

### Applications

HVAC leak detection

High Voltage isolation leak detection

## Mechanical drawing



## Operative Data

|                                    |   |
|------------------------------------|---|
| <b>Sensor type</b>                 | Single channel NDIR detector (LS-series)                    |
| <b>Detected gas</b>                | CO <sub>2</sub> (Carbon Dioxide)                            |
| <b>Measuring range</b>             | 0 ÷ 99.9 ppm  |
| <b>Operating temperature range</b> | 0 ÷ 55 °C (non-condensing)                                  |
| <b>Storage temperature range</b>   | -20 ÷ 85 °C   |
| <b>Operating humidity range</b>    | 0 ÷ 90 % (non-condensing)                                   |
| <b>Gas supply</b>                  | Flowing (nearly atmospheric pressure)                       |
| <b>Flow rate</b>                   | 100 ÷ 400 sccm  |
| <b>Warm-up time</b>                | < 60 s (start-up time)<br>< 30 minutes (full specification) |

## Mechanical & Electrical Specifications

|                                |  |
|--------------------------------|--|
| <b>Dimension (L x W x H)</b>   | 160mm x 30mm x 40mm                        |
| <b>Weight</b>                  | 155 g                                      |
| <b>Gas connector</b>           | Rapid fitting for 3mm o.d. tubing          |
| <b>Voltage supply</b>          | 5V ± 10%                                   |
| <b>Current consumption</b>     | 120mA (rms) – 250mA (peak)                 |
| <b>Signal Output</b>           | 0-3.3V                                     |
| <b>Communication Interface</b> | UART (Baud-rate: 9600-115200) <sup>1</sup> |

<sup>1</sup> ASCII Protocol described in the LS-series user manual. Default baud-rate is 9600.

## Measuring Specifications

|                              |                 |
|------------------------------|-----------------|
| Data rate                    | 2/s             |
| Response time T90 (0 – 90 %) | 1 s             |
| Resolution                   | 0.1 ppm         |
| Repeatability                | ± 0.4 ppm       |
| Lower Detection Limit (LDL)  | 0.4 ppm         |
| H2O vapor influence          | None            |
| Cross-sensitivity            | Contact factory |