

Technical Datasheet



µGard[®]2

Sensor Unit MC2 for Combustible Gases with Analog Output

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Specifications subject to change without notice.
Up-to-date data sheets and user manuals can be found in the download area of www.msr-24.com.
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■ All Products
■ Made
■ in Germany

DESCRIPTION

Exchangeable sensor unit including digital value processing, temperature compensation and self-control for the continuous monitoring of the ambient air.

The sensor unit MC2 houses a module with μ Controller, analog output and power supply in addition to the infrared or Pellistor sensor element including amplifier. The μ Controller calculates a linear 4–20 mA (or 2–10 V) signal out of the measurement signal and stores all relevant measured values and data of the sensor element.

Calibration is done either by simply replacing the sensor unit or by using the comfortable, integrated calibration routine directly at the system.

APPLICATION

The μ Gard[®]2 Sensor MC2 is used for the detection of combustible gases in the non-Ex zone when a typical 4–20 mA (or 2–10 V) signal is required.

FEATURES

- Digital measurement value processing incl. temperature compensation
- Internal function control with integrated hardware watchdog
- Data / measured values in μ C of the sensor unit, therefore simple exchange uncalibrated <> calibrated
- High accuracy and reliability
- Long sensor lifetime
- Hardware and software according to SIL compliant development process
- Easy maintenance and calibration by exchange of the sensor unit or by comfortable on-site calibration
- 4–20 mA (or 2–10 V) analog output with selectable signal output for special mode, fault etc.
- Reverse polarity protected, overload and short-circuit proof
- IP65 version
- Housing for integration of the sensor unit (option)
- Display (option)
- Display with two open-collector outputs for horn (resettable) and warning lamp (option)
- Conformity to:
 - EN 50271
 - EN 50545:2017
 - EN 61010-1
 - ANSI/UL 61010 1
 - CAN/CSA-C22.2 No. 61010-1
- Duct mounting kit (accessory)

EXAMPLE

CH₄ Methane sensor unit with Pellistor element, measuring range 0–100 % LEL with plastic housing type A, without display, sensor unit in plastic housing P

Ordering number: MC2-A-P3400-A-0-P

ACCESSORY

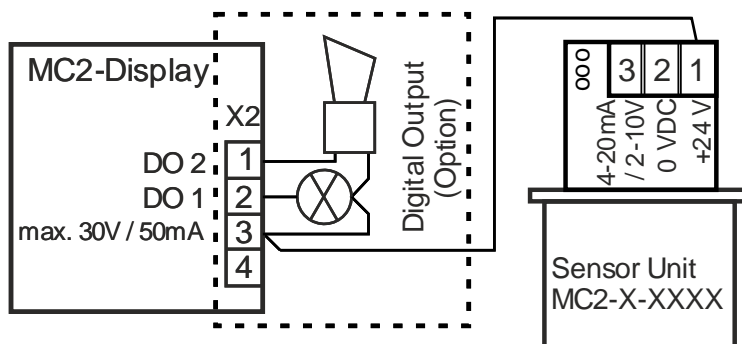
Duct mounting kit

Ordering number: C2-Z2

Calibration adapter

Ordering number: C2-Z4

WIRING CONFIGURATION



Note:

The installation of the sensor unit MC2 directly on the MSC2, MGC2 or MSB2 housing isn't-possible, only external connection with separate housing!

For 4–20 mA output signal you have to remove the resistor between pin 2 and pin 3.