Carbon Monoxide Detector IP55 MCO

Feb.11

MCO

Features

- **Continuous monotoring**
- **Low zero point drift**
- **Poisoning stable**
- **Long life sensor**
- **Easy maintenance/calibration**
- **Reverse polarity protected**
- **Overload protected**
- **4-20mA loop-powered or 2-10Vdc output signal**

Technical Data

Gas	Carbon Monoxide
Detection principle	Electrochemical, diffusion
Stability & resolution	+/- 3ppm
Repeatability	+/- 3% of reading
Long term output drift	<5% signal loss/year
Response time	t90 <50 sec.
Sensor coverage	400m2
Storage time	6 months
Mounting height	1,5 to 1,8 metres above floor
Output signal	
4-20mA	load < 500ohm overload and short circuit proofed
2-10Vdc	load < 50kohm overload and short circuit proofed
Power supply	18-28Vdc (reverse polarity prot.)
Power consumption	22mA, max (0,6VA)
Expected lifetime	5 years,normal operating envirom.
Humidity range	
Continuous	15-90% rH non-condensing
Operating range	
Continuous	-10 up to +50C
Rating	IP55 Protection Class
Pressure range	Atmospheric +/-10%

Application

For detection of carbon monoxide (CO) within a wide range of commercial applications such as vehicle exhaust in parking structures (e.g. underground garages) engine repair shops, tunnels equipment rooms and ventilation systems etc.

Due to the analogue signal 4-20mA and 2-10Vdc the CO transmitter is compatible to any electronic analogue control, DDC/PLC control or automation system.

Operation mode 4-20mA:

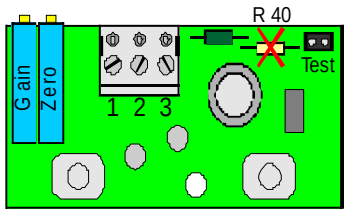
The transmitter is always current source.

Only 2-wire conection

Operation mode 2-10V:

Remove R40 by using a wire cutter

Always 3-wire connection



Ordering Codes

Wall Mounting

MCO 050	0-50ppm	4-20mA/2-10Vdc
MCO 100	0-100ppm	4-20mA/2-10Vdc
MCO 150	0-150ppm	4-20mA/2-10Vdc
MCO 200	0-200ppm	4-20mA/2-10Vdc
MCO 300	0-300ppm	4-20mA/2-10Vdc
MCO 400	0-400ppm	4-20mA/2-10Vdc
MCO 500	0-500ppm	4-20mA/2-10Vdc
MCO 1000	0-1000ppm	4-20mA/2-10Vdc

Stain	Enclosure of stainless steel
Tool	Tool for opening holes in stainless steel enclosure
/GCD	Protocol for CDA-series
GAS 17	Calibration gas 17 liter
REG	Pressure regulator flow adjusted to 0,5 lit/min.
Warning devices	See special datasheet
Warning signs	See special datasheet

Technical Data continue

Physical Characteristics

Enclosure	GW Plast 75 GWT
Flammability	UL94: VO Halogenfree
Enclosure colour	RAL 7032 (light grey)
Dimensions	80 x 40mm
Weight	Approx. 0,2kg
Installation	Wall mounting
Cable entry	Standard 3 pieces
Wire connection	Screw type terminal min. 0,25mm2 and max 2,5mm2 Max. loop resistor 500ohm (= wire resistor + controller input resistor)
Guidelines	EMV-Directive 89/336/EWG, CE EM-Directive 2004/108/EWG, CE

Maintanance

At commissioning and at periodic intervals determined by the person responsible for the gas detection system **(recommendation every year)**.

After exchange of the sensor

If in case of operational or climatic influences the sensitivity of the sensor **falls below 30 %** in operation, calibration will not be possible any more.

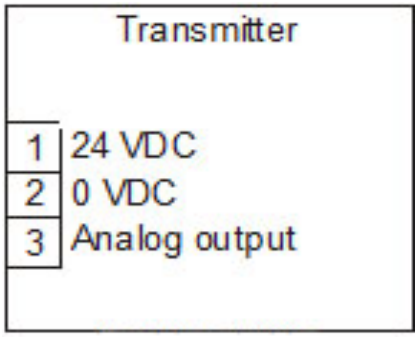
Then the sensor has to be changed.

Exchange of sensor element

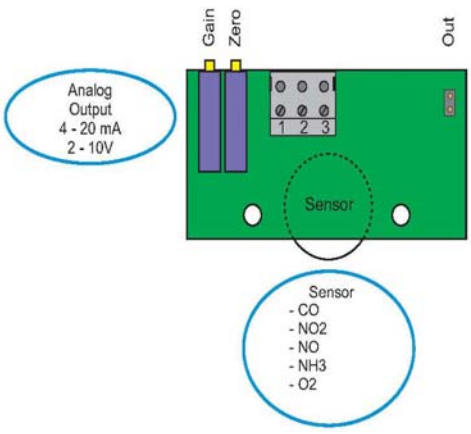
Sensor should always be installed without power applied:

- Unplug basic PCB EC-S carefully from the terminal blocks on the base.
- Unplug old sensor element from the PCB EC-S.
- Plug in sensor element into the PCB EC-S.
- Plug in the PCB EC-S into terminal block carefully.
- Calibrate

Connecting Diagram



Terminal 2 i only for 2-10Vdc signal = 3-wire
4-20mA two-wire loop powered



Calibration