

## HML CO Transmitter for Car Parks and Garages

HML and HML-N carbon monoxide transmitters are designed for detecting carbon monoxide in underground parking garages and parking halls. The measuring cell is an environmentally friendly electrochemical cell with a long life, good long term stability and high accuracy. As the sensor is heated the transmitter is working also in temperatures down to -30°C.

The output of 0..10 V or 4..20mA is available on the ranges of 0..100 or 0..300 ppm CO concentration for controlling ventilation.

Please note the during warm-up time at the commissioning; output is 0V or 4mA and the display of HML-N is blinking.

The function of the transmitter must be checked regularly e.g. once a year. Checking can be made by using a reference gas of 150 ppm CO.

Note! The reference gas must contain also oxygen O<sub>2</sub>, because of the measuring principal of the sensor cell.

If necessary the transmitter can be calibrated by using HML-C tool. We recommend using of HMV exchange kit to ensure the function of the transmitter. By changing the sensor module, values corresponding values of the new transmitter, can be guaranteed. Plug-in connection makes changing very easy.







Each transmitter and HMV has its own identified calibration certificate.

| Model Type            | Model                | Description  |
|-----------------------|----------------------|--|
|                       | <b>HML</b>           | CO Transmitter for Car Parks and Garages                           |
|                       | <b>HML-N</b>         | CO Transmitter for Car Parks and Garages with Display              |
|                       | <b>HMV</b>           | Exchange Kit for the CO Detector                                   |
|                       | <b>HMV-C</b>         | Calibration Tool for HML   |
|                       | <b>HM-KK</b>         | Reference Gas  |
|                       | <b>HM-VS</b>         | Flow Controller  |
| <b>Technical Data</b> | Power Supply         | 24 Vac/dc (22 Vac/dc.. 28Vac/dc), 2W                               |
|                       | Range, CO            | 0..100 ppm or 0..300 ppm   |
|                       | Accuracy             | +/-10 pp for < 70 ppm values<br>+/-15% of value for >70 ppm values |
|                       | Output               | 0..10Vdc < 1mA or<br>4..20Ma < 500 Ohm                             |
|                       | Time Constant (t63%) | 1.5 min  |
|                       | Warm Up Time         | 6 min  |
|                       | Protection Class     | IP54, cable gland downwards  |
|                       | Sensor Life Time     | < 7 years, 40% rH 20°C   |
|                       | Ambient Temperature  | -30..+40°C   |
|                       | Mounting             | Wall Mounting with Screws  |
|                       | Dimensions           | W100 x H113 x D46mm  |

**Jumper Settings**

Using the internal jumpers on the HML detector the CO detection range and output mode can be modified. Please see the below diagram for further details.

|           |   |
|-----------|---|
| Jumper S1 |  Off = 0..100ppm<br> On = 0..300ppm |
| Jumper S2 |  Off = 4..20mA<br> On = 0..10Vdc    |

**Wiring Connections**

