



**Transmitter IR22 F – Low Temperature CO<sub>2</sub> detection**

Optional local alarms for  
each transmitter location



# Transmitter IR22 F

## CO<sub>2</sub> detection for Cold Storage

CO<sub>2</sub> leaks in cold storage rooms can quickly become dangerous because CO<sub>2</sub> refrigeration systems operate at high pressures. In the case of subcritical and transcritical systems, these are often above 100 bar.

The IR22 F transmitter reliably monitors the CO<sub>2</sub> concentration under the toughest of conditions, whilst providing additional safety functions.

### Robust and Durable

The rugged IP65 transmitter IR22 F measures Carbon Dioxide (CO<sub>2</sub>) from -40 °C to +60 °C.

Two switching outputs enable connectivity to additional safety devices, such as

audible and visual alarms or self-contained alarm push buttons for each detection point. Tri-Colour LED status (green, yellow and red) provides instant operating status of the transmitter.

### Digital, Analogue or ACDC

The IR22 F is available with digital RS-485 interface and Modbus protocol or as analogue 4-20 mA. It is also ACDC-capable (Analogue Carrier for Digital Communication) which allows additional data to be transmitted digitally over the 4-20 mA cabling.



Alarm panel



Push button manual alarm

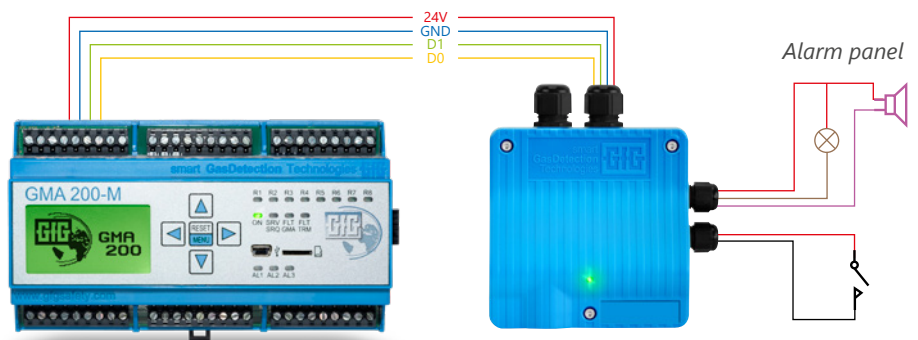
Dependant on transmitter quantity and the connected alarm devices, bus cable lengths of up to 1200m are possible.

### Manual Alarm/Alarm acknowledgement

The digital input can be used to connect a manual push button for instant alarm activation/alarm acknowledgement.



Switching outputs



Connection and configuration example

e.g. manual alarm button or acknowledgement of the horn

## Technical data IR22 F:

### Gas and Detection Range:

Carbon dioxide in the range 0 to 5% vol.

Resolution: 0.01% vol.

### Detection Principle:

Infrared

### Measuring Gas Supply:

Diffusion or gassing via calibration adapter

### Response time:

T<sub>90</sub> < 50 seconds

### Expected average

#### life of the sensor:

>5 years

### Temperature range:

-40 °C to +60 °C

### Air humidity:

0 % to 95 % r. h. (non-condensing)

### Pressure:

70 kPa to 130 kPa

### Output Signal:

Analog: 4-20 mA with ACDC

Digital: RS-485 Modbus

### Switching Outputs:

2x Open Collectors

### Digital Input:

Binary input, optionally quiescent or operating current, for manual alarms

### Power supply:

12 VDC to 30 VDC

### Housing:

Plastic

### Protection class:

IP65

### Weight:

125 g to 150 g

### Dimensions:

96 x 123 x 49 mm (W x H x D)

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