



Transmitter IR22 F – Low Temperature CO₂ detection

Optional local alarms for
each transmitter location



Transmitter IR22 F

CO₂ detection for Cold Storage

CO₂ leaks in cold storage rooms can quickly become dangerous because CO₂ 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 CO₂ concentration under the toughest of conditions, whilst providing additional safety functions.

Robust and Durable

The rugged IP65 transmitter IR22 F measures Carbon Dioxide (CO₂) 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.



Alarm panel



Push button manual alarm

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.

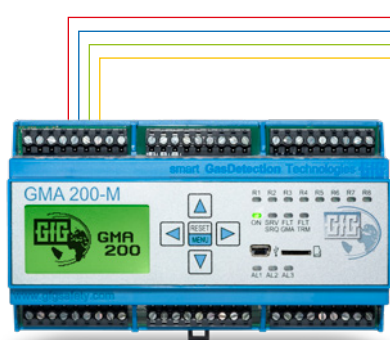
Dependant on transmitter quantity and the connected alarm devices, bus cable lengths of up to 1200m are possible.

Manual Alarm/Alarm acknowledgement

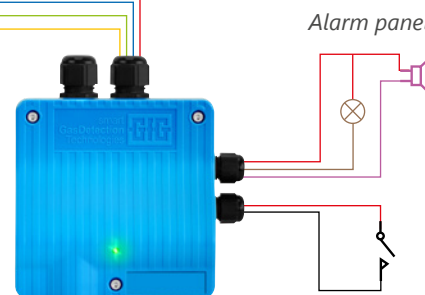
The digital input can be used to connect a manual push button for instant alarm activation/alarm acknowledgement.



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:

T₉₀ < 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:

Analogue: 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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