Transmitter IR22 F – Low Temperature CO₂ detection

Optional local alarms for each transmitter location
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.

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.

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:**
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)