

Refrigerant Gas Detector 20-2000ppm

HCFC

Wall

(E

HCFC



HCFC Display



Duct

Technical Data

Detected Gas	Refrigerant gases
Sensor Element	Semi-conductor sensor
Measuring range	20-2000ppm
Response time	t90 <40 sec.
Oxygen concentration	21%(standard)18% minimum leve
Repeatability	+/-20%
Pressure range	800-1100hPa
Storage time	Max 12 months

Output signal

Load < 500ohm (0)4-20mA (0)2-10Vdc Load > 50kohm Starting point 0/20% Proportional, overload and short circuit proof Relay 1 30Vac/dc, 0,5A, pot.free SPDT Dito SPNO/SPNC Relay 2

Wiring distance Current signal cirka 500m Voltage signal cirka 200m 1 x M20

Cable entry

Serial interface **Power supply**

Power consumption Analogue input

Expected lifetime Humidity range

Operating range Rating

Pressure range

Atmospheric +/-15% These products meet the CE-approval

RS4819200 Baud(9600Modbus)

16-28Vac/dc reverse polarity prot

60mA, max (1,1VA) without option

4-20mA, input resistance 2000hm

>5 years normal operating environ.

5-95%rH non-condensing

Continuous -10 up to +50C

IP65 Protection CI. Halogenfree

Features

- Linear output signal
- Sensor with long-life time
- Low zero drift point
- Digital measurement value processing incl.temperature comensation
- Good stability to poising
- **Continuous monitoring**
- Modular plug-in technology
- Comfort calibration with selective access release
- Integrated heating element temperature controlled for down to -40 degree(option)

Application

For leak detection in cooling systems with refrigerant gas as cooling agents HCFC, such as cold storage depots, ventilations systems, breweries, ice rinks etc to assure the compliance with requirements according to EN378-3.

Due to the analogue ouput signal and the RS485 serial interface the refrigerant transmitter is compatible to any electronic analogue control, DDC/PLC control or automation system.

Description

Refrigerant gas detectors with semi-conductor sensor for cont monotoring leakages of cooling agents like hydrofluorcarbon (HCFC).

The semi-conductor typical, non-linear signal is translated into a linear, temperature-compensated output signal.

A comfortable calibration routine with selective access release is integrated in the transmitter.

Ordering Codes

Manua	l adressing	and calibration
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HCFCR22VC	Gas Detector 20-2000ppm
HCFCR401aVC	Gas Detector 20-2000ppm
HCFCR401bVC	Gas Detector 20-2000ppm
HCFC R402aVC	Gas Detector 20-2000ppm
HCFCR402bVC	Gas Detector 20-2000ppm
HCFCR408aVC	Gas Detector 20-2000ppm
HCFC R409aVC	Gas Detector 20-2000ppm
HCFCR123VC	Gas Detector 20-2000ppm

Adressing and calibration with service tool

HCFCR22VCT Gas Detector 20-2000ppm HCFCR401aVCT Gas Detector 20-2000ppm HCFC R401bVCT Gas Detector 20-2000ppm HCFCR402aVCT Gas Detector 20-2000ppm HCFCR402bVCT Gas Detector 20-2000ppm HCFCR408aVCT Gas Detector 20-2000ppm HCFCR409aVCT Gas Detector 20-2000ppm HCFC R123VCT Gas Detector 20-2000ppm

Other refrigerant gases on request Automatikprodukter Nov.10

Refrigerant Gas Detector 20-2000ppm

HCFC

Nov.10

Relay Package

The two relays are activated in dependence of gas concentration.

If the gas concentration exceeds the adjusted alarm threshold, the corresponding relay switches on.

If the gas concentration falls below the threshold minus hysteresis, the relay switches off again.

The contact function for relay 2, NC (normally closed) or NO (normally open) can be selected via the jumper NO/NC.

See figure.

Relay 1 is equipped with a change-over contact.

Via the Modbus interface the two alarm thresholds and the hysteresis are freely adjustable at the PC within the measuring range.

The procedure can be read from the user manual "Modbus Software".

The following parameters are factory-set for the measuring range 0-2000 ppm.

20-2000ppm

Relay output 1

Relay output 2 Switching hysteresis

Connecting Diagram

Shield E 24 VDC

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-Control Threshold

500 ppm 1000 ppm 100 ppm



PCB-board



Selection analog output signal

Jumper 0- 20 %	Jumper V-A	Output signal
Not set	Not set	0 – 20 mA
Set	Not set	4 – 20 mA
Not set	Set	0 – 10 V
Set	Set	2 – 10 V

					MOD	Protocol for Modbus
	7	Bus_B			CUST	Protocol for customers specifications
6	Bus_A 4-20 mA lnp p4 - 1	NO	HEAT GCD	Temp.controlled heating element 3C - Protocol for GCD-series		
	4	4-20 mA	12	NC	REL	Relay pack see rear side
	3	24 VDCOut p2	3	COM	Ž DUCT	Duct Mounting
	2	0 VDC		NO/NC COM	CAL 2	Two lines, 16 characters each Calibration Kit for transmitters
0 0 0	Χ4	4 Tronomittor X5		STAIN	Enclosure of stainless steel	
	Transmitter NO		AIN	4-20mA analogue input		
ler					GAS 17	Calibration gas 17 liter
					REG	Pressure regulator flow adjusted to 0

olled heating element 3C +/-2C 0,3VA GCD-series see rear side ıg characters each Kit for transmitters f stainless steel logue input as 17 liter gulator flow adjusted to 0,5 lit/min. Warning devices See special datasheet Warning signs See special datasheet

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