Display-version

H2S Wall

CE

H2S Duct

Features

- **Digital measurement values**
- **Comfort calibration with selective access release**
- **Continuous monotoring**
- **Good stability to poising**

- **Low zero point drift**
- **Poisoning stable**
- **Long life sensor**
- **Modular plug-in technology**

- **Easy maintenance/calibration**
- **2 relays output adjustable switching thresholds**
- **Manual adressing for RS485 mode. eg. Modbus**

Technical Data

Gas	Hydrogen sulphide H2S
Detection principle	Electrochemical diffusion
Accuracy	< 0,2 ppm
Repeatability	<2% of reading
Long term output drift	<2% of signal loss/month
Response time	t90 <35 sec.
Mounting height	**200mm above floor**
Storage time	Max 6 months +5/+30C

Output signal   (0)4-20mA, load 500ohm
Selectable   (0)2-10Vdc, load 50kohm
Starting point 0/20%
Relay 1   30Vac/dc, 0,5A, pot.free SPDT
Relay 2   Dito SPNO/SPNC
Consumption 30mA, max 0,8VA

Serial Interface
Transciever   RS485/19200 Baud/9600 at Mod

Power supply   18-28Vac/dc,reverse polarity prot.

Power consumption
Analogue   22mA, max (0,6VA**)**
Buzzer   30mA, max 0,8VA
LCD-display   10mA, max 0,3VA
Heater   10mA, max 0,3VA
Power supply 24dc, max load 50mA ext.detector

Expected lifetime   2 years normal operating enviro.

Humidity range   15-90% rH non-condensing

Description

H2S detector including digital measurement value processing and temperature compensation for the continuous monotoring of the ambient air to detect hydrogen sulphide H2S concentrations.

Integrated in the detector there is a comfortable calibration routine with selective access release..

For the detection of hydrogen sulphide within a wide range of industrial and commercial applications.

Ordering Codes

Manual calibration via potentiometer
H2S 050   0--50ppm
H2S 100   0-100ppm
H2S 200   0-200ppm

Calibration and adressing by service Tool
H2S 050T   0-50ppm
H2S 100T   0-100ppm
H2S 200T   0-200ppm

MOD   Protocol for Modbus
CUST   Protocol for customers specifications
GCD   Protocol for GCD-series
REL H2S   Relay pack see rear side
DUCT   Duct Mounting

LCD   Two lines, 16 characters each
CAL 2   Calibration Kit for Tox-transmitters
HEAT   Temp.controlled heating element 3C +/-2C 0,3VA
BUZZ   Internal warning summer 85dB
STAIN   Enclosure of stainless steel

AIN   4-20mA analogue input, only fpr RS485 mode
GAS 17   Calibration gas 17 liter
REG   Pressure regulator flow adjusted to 0,5 lit/min.

Warning devices   See special datasheet
Warning signs   See special datasheet

Physical Characteristics

Operating range	-10 up to +50C, -40C c/w heater
Rating	IP65 Protection Class
Enclosure	Polycarbonate
Flammability	UL94: V2 Halogenfree
Enclosure colour	RAL 7032 (light grey)
Dimensions	94x130x57mm
Weight	Approx. 0,5kg
Installation	Wall mounting
Cable entry	Standard 1xM20
Wire connection	Screw type terminal min. 0,25mm2 and max 2,5mm2
Wire distance	Current signal cirka 500m Voltage signal cirka 200m
Guidelines	EMC-Directive 2004/108/EWG, CE

Two-wire connection
- 4 - 20 mA output signal without options

Cross Sensitivity

	Concentration(ppm)	Reaction (ppmH2S)
Carbon Monoxide	100	<2
Sulphur dioxide SO2	100	~2
Nitrogen dioxide NO2	5	- 1,0
Nitrogen Oxide NO	35	<2 ppm
Hydrogen H2	100	20

Relay Package

The two relays are activated in depence of the gas concentraion.

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 jumper NO/NC.
See fig.1 and 3.

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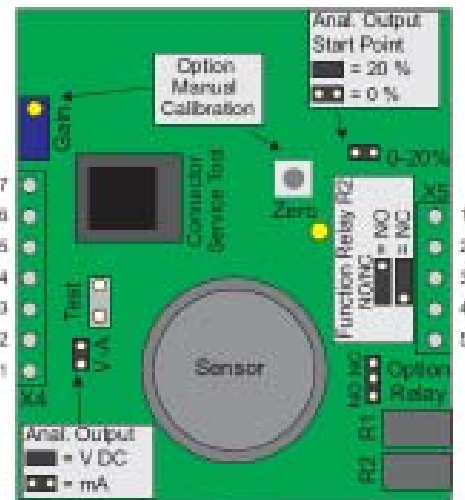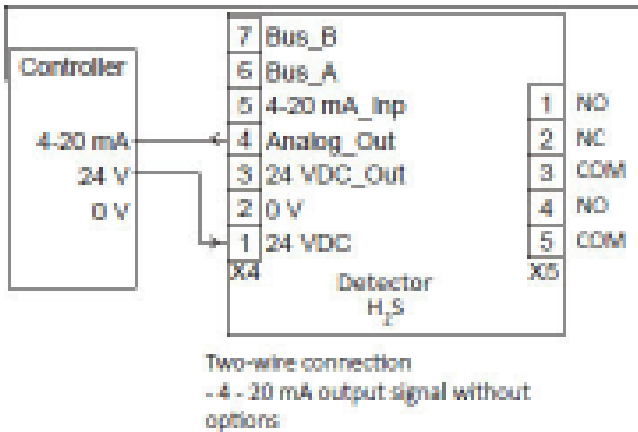
The procedure can be read from the user manual Modbus Software.

The following parameters are factory set.
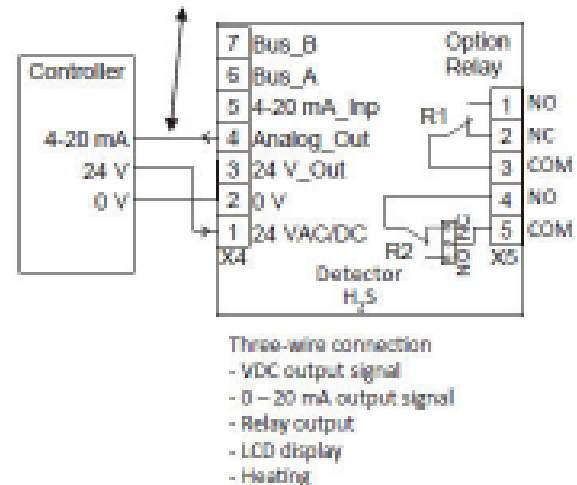
Alarm threshold 1 = Relay 1:   10ppm
Alarm threshold 2 = Relay 2:   20ppm
Switching hysteresis: 2ppm

Connection three-wire system

Do not connect power supply at this pin.
(0 VDC, 24 VAC or 0VAC will destroy the transmitter.)

Three-wire connection
- VDC output signal
- 0 – 20 mA output signal
- Relay output
- LCD display
- Heating