



Display-version



Hydrogen Wall



Hydrogen Duct



Features

- Digital measurement value processing incl. temperature compensation
- Comfort calibration with selective access release
- Continuous monitoring
- Low output drift
- Poisoning stable
- Modular plug-in technology
- Easy maintenance/calibration
- Overload protected and short circuit proof
- 2 relays output adjustable switching thresholds
- Manual addressing for RS485 mode. eg. Modbus

Technical Data

Gas	Hydrogen H ₂
Detection principle	Ex sensor, catalytic bead (pellistor)
Measuring range	0 - 100% LEL
Accuracy	+/- 1% of signal/methane
Long-term zero point drift	< +/- 5% measuring range/year
Long-term sensitivity drift	< +/- 1,5% measuring range/year
Response time	t90 <50 sec./methane
Storage time	Max 6 months
Mounting height	Close to the ceiling
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 potential free
Consumption	30mA, max 0,8VA
Serial Interface	
Transceiver	RS485/19200 Baud/9600 at Mod
Power supply	16-28Vac/dc, reverse polarity prot. for 2-wire mode only Vdc
Power consumption	35mA, max(0,85VA) without option
Expected lifetime	3 years, normal operating envirom.
Humidity range	5-95% rH non-condensing
Operating range	-20 up to +50C
Temperature drift	< 1%
Rating	IP65 Protection Class
Pressure range	Atmospheric +/-20%

Application

The transmitter is used within a wide commercial range for detecting flammable gases and vapours.

Due to the standard output signal and the RS485 interface the O₂ transmitter is compatible to the Gas Controller GCM and GCD as well s to any other electronic control or automation system .

Ordering Codes

	Manual calibration via potentiometer
H2 100	Hydrogen 0-100% LEL
	Calibration via Service Tool
H2 100T	Hydrogen 0-100% LEL
MOD	Protocol for Modbus
GCD	Protocol for GCD-series
REL	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 +/-2C0,3VA
BUZZ	Internal warning summer 85dB
STAIN	Enclosure of stainless steel
SERV	Service Tool with Keypad and LCD-display
AIN	4-20mA analogue input
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

Enclosure	Polycarbonate, halogen-free
Flammability	UL94 V2
Enclosure colour	RAL light grey
Dimensions WxHxD	94 x 130 x 57mm
Weight	approx 0,5kg
Cable entry	Standard 1 x M20
Wire connection	Screw terminal, min 0,25mm ² and max 2,5mm ²
Wire distance	Current signal 500m Voltage signal 200m
Guidelines	EMC Directive 89/336/EEC

Warning buzzer

Acoustic pressure	85db (distance 300m)
Frequency	2,35 kHz
Power consumption	30mA, (max 0,8VA)

LCD display

LCD	Two lines, each 16 characters
Power consumption	10mA (max 0,3VA)

Heating

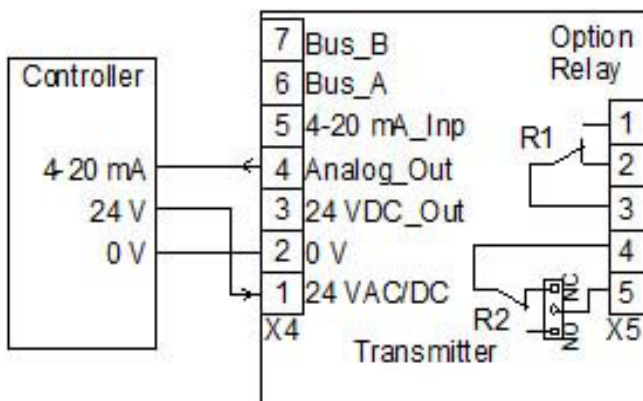
Temperature controlled	3C +/-2C
Ambient temperature	-40C
Power supply	18-28Vdc/ac
Power consumption	0,3A, 7,5VA

Analogue input

Only for RS-485 mode 4-20mA overload and short-circuit proof, input resistance 200ohm

Power supply for external transmitter 24Vdc max.50mA

Connecting Diagram



Relay Package

The two relays are activated in dependence of the 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 jumper NO/NC.

See fig.1 and 3.

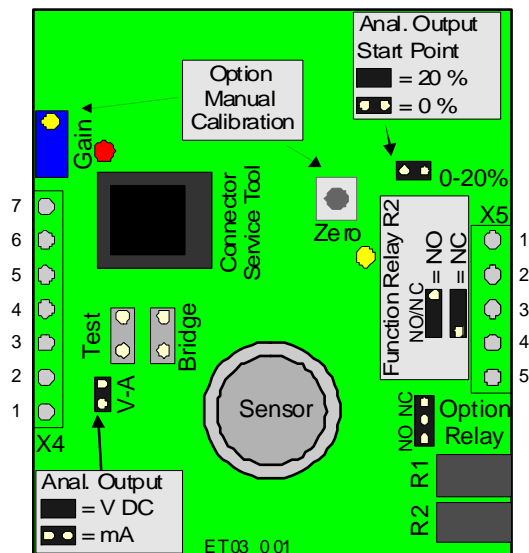
Relay one is equipped with a change-over contact.

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: 10 % LEL
Alarm threshold 2	= Relay 2: 20 % LEL
Switching hysteresis:	5 % LEL



We reserve the right to make changes and improvements in our products which may effect the accuracy of the information contained in this leaflet.