



Oxygen 0-25% Vol. Single Point Controller 1/2 Detector

PO2

Oct.10



Technical Data

Gas	Oxygen O2
Detection principle	Electrochemical, diffusion
Measuring range	0 - 25 vol. %
Accuracy	+/- 0,1 vol. %
Long term output drift	<4% signal loss/year
Response time	t90 <15 sec.
Storage time	Max 6 months
Mounting height	1,5 to 1,8 metres above floor
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	30Vac/d 0,5A potfree SPNO/SPNC
Binary	30Vdc, 0,1A open collector
Input signal	4-20mA, input resistance 200ohm
Voltage external detector	24Vdc, max, charge 50mA
Serial Interface	
Transciever	RS485/19200 Baud/9600 at Mod
Power supply	18-28Vac/dc, reverse polarity prot.
Power consumption	100mA, max (2,5VA)
Expected lifetime	2 years, normal operating envirom.
Humidity range	15-90% rH non-condensing
Operating range	-10 up to +50C
Rating	IP65 Protection Class
Pressure range	Atmospheric +/-10%

Features

- Integrated gas sensor, long life expectancy
- Good resistance to poisoning
- Continuous monitoring
- Standard version with display/LED/keypad
- Modular plug-in technology
- Easy maintenance/calibration
- Reverse polarity protected, overload-proof
- (0)4-20mA or (0)2-10Vdc output signal
- 2 relays output 30Vac/dc 0,5A
- 2 binary outputs 30Vdc, 0,05A
- 4-20mA input for external gas detector
- 4 x status LED without display (option)
- 2 power relays, potential-free, 250Vac/dc 5A (option)
- Integrated buzzer with reset function internal/ external (option)
- Serial Interface (option)

Application

For detection of oxygen in rooms where changes of the oxygen concentration are possible, such as laboratories and food production etc.

As option PO2 is provided with an input for one external analog gas detector.

4 alarm thresholds per detector are free programmable.

Configuration and operation are possible via logical, simple system menu structure without specific programming knowledge

Free programmable parameters and setpoints enable the individual adaptation to a variety of possible applications of gas measuring and monitoring.

Ordering Codes

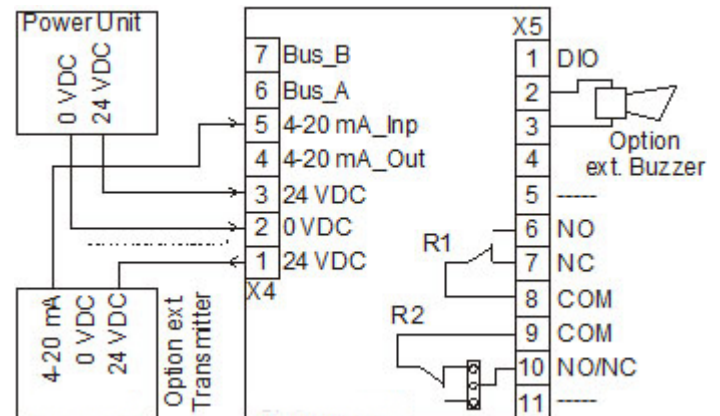
PO2 24	Single point gas controller 0-25 vol.% 24Vac
PO2 230	Single point gas controller 0-25 vol.% 230Vac

MOD	Protocol for Modbus
GCD	Protocol for GCD-series
REL	Relay pack see rear side
DUCT	Duct Mounting
POW 2	Power relays 250Vac, 5A, potential-free, changeov
EPS	Supply duration 60min., maintenance-free, changeov
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, plastic On request stainless steel
Flammability	UL94 V2
Enclosure colour	RAL light grey
Dimensions WxHxD	130 x 130 x 75mm
Weight	approx 0,6kg
Cable entry	Standard 6 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 2004/108/EEC

Connecting Diagram



Warning buzzer

Accoustic pressure	85db (distance 300m)
Frequency	3,5 kHz
Power consumption	30mA, (max 0,8VA)

LCD display

LCD	Two lines, each 16 characters
Status LED (4)	Normal operation - Fault - Alarm 1 - Alarm 2
Operation	4 push-buttons - menu-driven
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

Options

Status LED (without display) Power - Alarm 1 - Alarm 2 - Fault

Power supply 230Vac 90-250Vac 50/60Hz

Power relays (2) 250Vac, 5A, potential-free, change-over contact

Emergency power supply Supply duration 60min, maintenance-free