

PolyGard® Transmitter ADT23-3400 for combustible gases

DESCRIPTION

ADT transmitter with digital processing of the measured values and temperature compensation for the continuous monitoring of the ambient air and detection of combustible gases and vapours. The calibration routine with selective access release enables the comfortable calibration of the transmitter. In addition to the standard analog output (0) 4-20 mA or (0) 2- 10 V DC the ADT-23 is equipped with a RS-485 interface for different protocols. Two relays with adjustable switch threshold are available as an option.

APPLICATION

The transmitter is used within a wide commercial range for detecting flammable gases and vapours. Due to the output signal and the RS-485 interface the transmitter ADT-23 is compatible to the PolyGard gas controller series MGC and DGC by MSR-E as well as to any other electronic control or automation system.



Standard enclosure

FEATURES

- Digital processing of the measured values including temperature compensation
- Continuous monitoring
- Low zero-point drift
- Good poisoning permanence
- Long life sensor
- Modular design (plug-in)
- Simple maintenance
- Comfortable calibration with selective access release
- Reverse polarity protected, overload protected and short-circuit proof
- (0) 4 – 20 mA / (0) 2 – 10 V analog signal output, selectable
- Serial interface RS-485
- IP65 protected
- Manual calibration via potentiometer (optional)
- Manual addressing at RS-485 mode (optional)
- 4 – 20mA analog input for external transmitter (optional)
- Relay output (optional)
- Integrated buzzer (optional)
- LCD display (optional)
- Heating (optional)
- Duct mounting (optional)

SPECIFICATIONS

Sensor Performance

Gas type	Combustible gases/ vapours (see order inform.)
Sensor element	Ex sensor, catalytic bead (pellistor)
Measuring range	0 - 100% LEL
Accuracy	± 1 % of reading
Long-term zero point drift	< ± 6 % measuring range /year
Long-term sensitivity drift	< ± 1,5 % measuring range / month
Response time	t ₅₀ ≤ 3 s; t ₉₀ ≤ 10 s /methane
Sensor life expectancy	3 years/normal operating environment
Temperature range	- 20 °C to + 50 °C (-4 °F to 122 °F)
Temperature drift	≤ 1%
Humidity range	5 – 95 % RH non-condensing
Pressure range	Atmospheric ± 20 %
Storage temperature	5 °C to 30 °C (41 °F to 86 °F)
Storage period	Max. 6 months
Mounting height	Depending on gas type

Electrical

Power supply	16 - 28 VDC/AC, reverse polarity protected
Power consumption (without options)	35 mA, max. (0,85 VA)

Output Signal

Analog output signal	(0) 4 – 20 mA, load ≤ 500 Ω
Selectable: Current / voltage	(0) 2 - 10 V; load ≥ 50 k Ω
Starting point 0 / 20 %	proportional, overload and short-circuit protected

Serial Interface

Transceiver	RS 485 / 19200 Baud (9600 for Mod-Bus)
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Physical Characteristics

Enclosure Plastic Type A*	Polycarbonate
Flammability	UL 94 V2
Enclosure color*	RAL 7032 (light grey)
Dimensions (W x H x D)	94 x 130 x 57 mm (3.7 x 5.12 x 2.24 inch.)
Weight	Approx. 0.5 kg (1.1 lbs.)
Protection class	IP 65
Installation	Wall mounting
Cable entry	Standard 1 x M 20
Wire connection	Screw type terminal, min. 0.25 mm ² (24 AWG) max. 2.5 mm ² (14 AWG)
Wire distance	Current signal ca. 500 m (1500 ft.) Voltage signal ca. 200 m (600 ft.)

Guidelines

EMC Directive 2004 / 108 / EEC

CE

Warranty

1 year on material (without sensor)

* For further enclosure types see datasheet AT-DT Enclosure.