

PolyGard® Analog Semiconductor Transmitter AT42 3H00 for combustible gases

Description

Analog transmitter with semiconductor gas sensor for monitoring the ambient air and detecting flammable gases and vapors such as natural gas, methane, propane and butane, measuring below the lower explosion limit (LEL). The typical semiconductor non-linear sensor signal is changed into a non-linear 4 to 20 mA output signal.

Application

The transmitter is used within a wide commercial range for monitoring leakage in gas pipes, gas fan heaters, gas heating systems, gas engines, gas boilers, gas fittings, gas transfer stations, gas valves, domestic gas boiler installations and in gas operated vehicles in underground car parks. Due to the non-linear 4 to 20 mA analog signal the transmitter is compatible to the electronic analog controller MGC-02 by MSR-E and also with other analog 4 to 20 mA input controllers.



Features

- Continuous monitoring
- Low zero point drift
- Good poisoning permanence
- Long-life sensor
- Modular design (plug-in)
- Simple maintenance / calibration
- Reverse polarity protected
- Overload and short-circuit protection

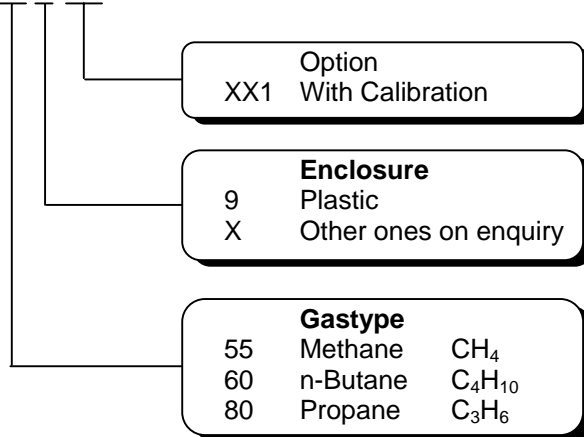
Specifications

Electrical	
Power Supply	19 – 40 VDC, reverse polarity protected
Power consumption	50 mA, max. 1,2 VA
Sensor Performance	
Detected gas	Combustible gases and vapors
Sensor element	Semiconductor sensor
Range	0 - 100% LEL
Response time	$t_{90} \leq 30$ s/methane
Type of Control	
Analog output signal	4 – 20 mA, load $\leq 500 \Omega$, non-linear, overload and short-circuit protection
Operating Environment	
Humidity	15 – 95 % RH non condensing
Working temperature	- 10 °C to + 50 °C (14 °F to 122 °F)
Storage temperature	0 °C to + 50 °C (32 °F to 122 °F)
Pressure range	Atmospheric ± 10 %
Physical characteristics	
Enclosure material	Plastic
Enclosure color	Cover: Light gray, Bottom plate: dark gray
Dimensions (H x W x D)	75 x 75 x 40 mm (2.95 x 2.95 x 1.5 in.)
Weight	ca. 0,15 kg (0.33 lbs)
Protection class	IP 30
Mounting	Wall mounted
Cable entry	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	Max. loop resistance 500 Ω (= wire resistance & controller input resistance)
Approvals/Listings	
	EMV- Directive 89/336/EWG
	CE
Warranty	One year material and workmanship (Without Sensor)



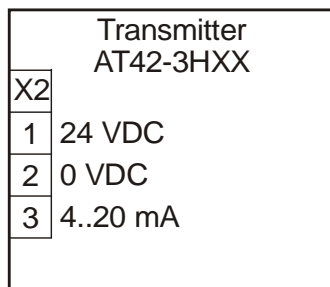
Ordering Information

AT-42-3HXX-9-001



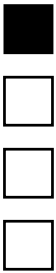
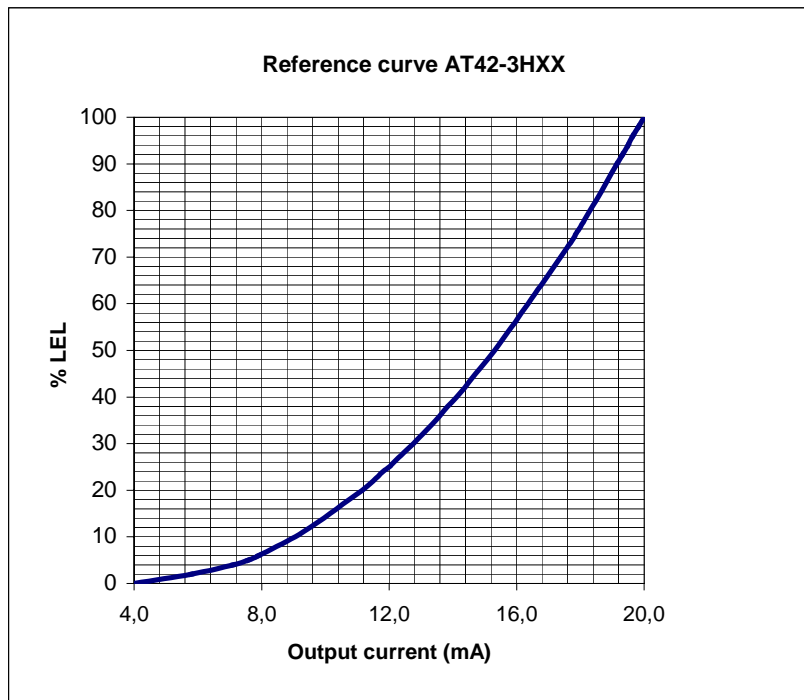
Example: Transmitter for methane gas, plastic enclosure 75 x 75 x 40 mm, factory calibration
Ordering Number: AT-42-3H55-9-001

Wiring Configuration



Output signal

Output signal (mA) depending on gas concentration (LEL)



Dimensions

