



# PolyGard<sup>®</sup> Nitrous Oxide (N<sub>2</sub>O) Analog Transmitter AT-A2 1192

## Description

Analog N<sub>2</sub>O gas transmitter for the detection of nitrous oxide the ambient air.

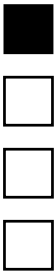
## Application

For the detection of nitrous oxide (N<sub>2</sub>O) within a wide range of commercial applications. Due to the 4 – 20 mA analog signal the N<sub>2</sub>O transmitter is compatible to any electronic analog control, DDC/PLC control or automation system (e.g. PolyGard Series MGC by the MSR-E).



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## Features



- Infrared sensor
- Continuous monitoring
- High sensitivity to nitrous oxide
- Poisoning stable
- Long life sensor
- Temperature compensated
- Easy maintenance / calibration
- Reverse polarity protected
- Overload protected
- 4 – 20 mA analog signal output

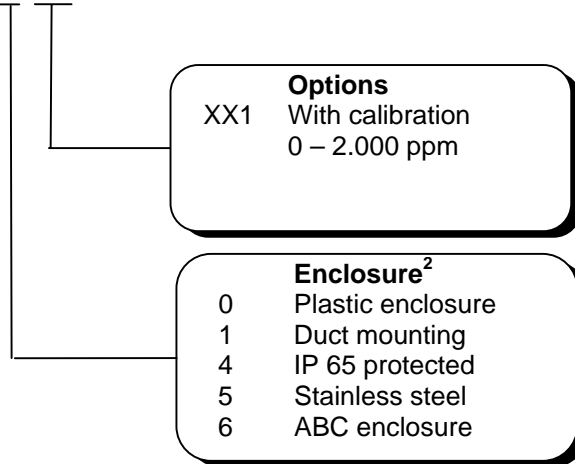
## Specifications

<b>Electrical</b>	
Power supply	8 - 30 VDC (reverse polarity protected)
Power consumption	70 mA, max. 2,0 VA)
<b>Sensor Performance</b>	
Detected gas	Nitrous oxide (N <sub>2</sub> O)
Sensor element	Electrochemical, diffusion
Measuring range	0 – 2000 ppm factory set
Stability & resolution	1 % or measuring range
Zero Repeatability	± 40 ppm
Span Repeatability	± 40 ppm
Long term zero drift	± 20 ppm per month
Response time	t <sub>90</sub> ≤ 30 sec.
Sensor life expectancy	> 5 years, normal operating environment
Warm up time - To final zero ± 40 ppm - To specification	< 20 sec.
	< 1800 sec.
<b>Type of Control</b>	
Analog output signal	Proportional, 4 – 20 mA, load ≤ 500 Ω overload and short-circuit proofed
<b>Operating Environment</b>	
Humidity Range	0 to 95 % RH non-condensing
Working temperature	-20 °C to + 50 °C (-4 °F to 122 °F)
Storage temperature	5 °C to + 50 °C (41 °F to 122 °F)
<b>Physical characteristics</b>	
Enclosure material	ABS
Enclosure color	Light gray RAL 7035
Dimensions (WxHxD)	122 x 120 x 80 mm (4.8 x 4.7 x 3.15 in.)
Weight	0.5 kg (1.1 lbs.)
Protection class	IP 65
Mounting	Wall mounted
Cable entry	1 x M 20
Wire connection	Screw type terminal, min. 0.25 mm <sup>2</sup> (24 AWG) max. 1.5 mm <sup>2</sup> (16 AWG)
Wire distance	Max. loop resist. 500 Ω (= wire resistor + controller input resistor)
<b>Approvals/Listings</b>	
	EMV- Directive 89/336/EWG
	CE
<b>Warranty</b>	One year on material and workmanship (Without sensor)



## Ordering Information

AT-A2-1192-4-001



<sup>2</sup> See Data sheet „PolyGard AT/DT Enclosure”

**Example:** N<sub>2</sub>O – transmitter with calibration 0 – 2000 ppm, ABS enclosure  
**Ordering Number: AT-A2-1192-6-001**

## Connecting Diagram

