PolyGard® Ammonia NH_3 Transmitter ADTX3 1120/25

DESCRIPTION

NH_3 transmitter including digital measurement value processing and temperature compensation for the continuous monitoring of the ambient air to detect ammonia concentrations. A comfortable calibration routine with selective access release is integrated in the transmitter. The ADT-03 possesses a standard analog output, (0) 4–20 mA or (0) 2-10 V DC, and an RS-485 interface. 2 relays with adjustable switching thresholds are available as an option.

Standard enclosure

APPLICATION

For detecting leakages in refrigeration plants with ammonia as refrigerant, and also within a wide range of commercial and industrial applications. Due to the standard analog signal and the RS-485 serial interface the NH_3 transmitter is compatible to the PolyGard gas controller series MGC and DGC by MSR-E as well as to any other controllers or automation systems.

FEATURES

- Digital measurement value processing incl. temperature compensation
- Continuous monitoring
- Low zero-point drift
- Good stability to poisoning
- Long-life sensor
- Modular plug-in technology
- Easy maintenance
- Comfortable calibration with selective access release
- Reverse polarity protected, overload and short-circuit proof
- (0) 4 - 20 mA / (0) 2 - 10 V analog signal output selectable
- Serial interface RS-485
- IP 65 protected
- Manual calibration via potentiometer (option)
- Manual addressing for RS-485 mode (option)
- 4 – 20 mA analog input for an external transmitter (option)
- Relay output (option)
- Integrated buzzer (option)
- LCD display (option)
- Heating (option)
- Duct mounted (option)

MSR Electronic GmbH | Würdingerstr. 27a | 94060 Pocking GERMANY
Tel: +49 8531-9004-0 Fax: -44
www.msr-electronic.de

Specification subject to change without notice
PolyGard® is a registered trademark of MSR electronic

SPECIFICATIONS

General sensor performances		
Gas type	Ammonia (NH_3)	
Sensor element	Electrochemical, diffusion	
Measuring range	0 - 300 ppm / 0 - 1000 ppm	
Pressure range	Atmosphere ± 15 %	
Humidity	15 – 90 % RH non condensing	
Storage temperature range	5 °C to 20 °C (41 °F to 68 °F)	
Storage time	Max. 3 months	
Type ADT-53-1120		
Accuracy	4 ppm	
Repeatability	< 3 % of reading	
Zero-point	0 ppm ± 16 ppm	
Long-term output drift	< 5% signal loss/6 months	
Response time	t_{90} < 35 sec.	
Temperature range	-10 °C to + 40 °C (14 °F to 104 °F)	
Life expectancy	> 2 years/normal operating environment	
Cross sensitivity*	Concentration	Reaction
Carbon monoxide; CO	300 ppm	0 ppm
Hydrogen H_2	200 ppm	0 ppm
Sulphur dioxide SO_2	20 ppm	- 7 ppm
Hydrogen sulphide H_2S	20 ppm	7 ppm
Nitrate monoxide NO	20 ppm	- 1 ppm
Nitrogen dioxide NO_2	20 ppm	- 20 ppm
Chlorine Cl_2	20 ppm	- 55 ppm
Carbon dioxide CO_2	2 % vol	0 ppm
Type ADT-63-1125		
Accuracy	< 15 ppm	
Repeatability	< 5 % of reading	
Zero-point	0 ppm ± 15 ppm	
Long-term sensitivity output drift	< 10% signal loss/6 months	
Response time	t_{90} < 120 sec.; t_{50} < 20 sec.	
Temperature range	-40 °C to + 10 °C (-40 °F to 50 °F)	
Life expectancy	> 18 months/normal operating environment	
Cross sensitivity*	Concentration	Reaction
Carbon monoxide; CO	100 ppm	95 ppm
Hydrogen H_2	3000 ppm	3000 ppm
Sulphur dioxide SO_2	20 ppm	5 ppm
Hydrogen sulphide H_2S	20 ppm	40 ppm
Phosphates	300 ppm	0 ppm
Nitrogen dioxide NO_2	10 ppm	0 ppm
Chlorine Cl_2	5 ppm	0 ppm
Hydrogen chloride HCl	10 ppm	0 ppm
Carbon dioxide CO_2	0,5 % vol	0 ppm
Alcohols	1000 ppm	yes
Amines	---	yes
Arsines	0,2 ppm	0 ppm

* Die The table doesn't claim to be complete. Other gases, too, can have an influence on the sensitivity. The mentioned cross sensitivity data are only reference values valid for new sensors.

MSR Electronic GmbH | Würdingerstr. 27a | 94060 Pocking GERMANY
Tel: +49 8531-9004-0 Fax: -44
www.msr-electronic.de

Specification subject to change without notice
PolyGard® is a registered trademark of MSR electronic