

Nitric Oxide (NO) Digital LON Gas Transmitters



**PolyGard
DT-1129 V1**

DESCRIPTION

Digital LON gas transmitters for the detection of nitric oxide (NO) in the ambient air for direct link to LONWORKS® network.

APPLICATION

To sense nitric oxide (NO) in a wide variety of commercial and industrial applications such as manufacturing equipment rooms, machine and engine repair shops, and ventilation systems, etc. and transmit to any compatible interoperable LON-bus system.

FEATURES

- LONWORKS® *interfacing*
- LONWORKS® *functional profile*
- *Continuous monitoring*
- *Easy plug-in sensor*
- *Electrochemical gas sensor, gas specific*
- *Temperature compensated*
- *4-20 mA input from remote analog transmitter*
- *Polarity protected*
- *Overload & short circuit protected*
- *RFI/EMI protected*
- *Modular plug-in technology*
- *Easy maintenance*



SPECIFICATIONS

Electrical

Power supply 10-28 VDC, polarity protected
 Power consumption 28 mA (0.7 VA)
 RFI/EMI protection 5.0 W @ 1 ft. (0.31 m) radiated

Sensor Performance

Gas detected Nitric oxide (NO)
 Sensor element Electrochemical, diffusion
 Range 0-50 ppm, factory set
 Stability & Resolution ± 0.5 ppm
 Repeatability ± 2% of reading
 Long term output drift < 2% signal loss/month
 Response time $t_{90} < 25$ sec.
 Sensor life expectancy 3 years, normal operating environment
 Sensor coverage 4,000 sq.ft., max. 6,000 sq.ft. (372 m², max. 558 m²), under "ideal conditions"

Installation Location

Mounting height 1 to 3 ft. (0.3 to 1.0 m) below ceiling

Type of Control

General Continuous proportional sensor signal
 LONWORKS® Standard network variables
 SNVTs according LONMARK® application layer, Interoperability directives, version 3.2

- transceiver FTT-10A
 AT series remote gas transmitter input capability
 - analog input (1) 4-20 mA, overload and short circuit protected
 24 VDC, max. load 100 mA

Environmental

Permissible ambient
 - working temperature 14°F to 104°F (-10°C to 40°C)
 - storage temperature 41°F to 86°F (5°C to 30°C)
 - humidity, continuous 15 to 95% RH, non-condensing
 - working pressure Atmospheric ± 10%

Physical

Enclosure, standard
 - material Galvanized steel w/zinc coating, corrosion resistant
 - color Light gray
 - protection NEMA 1 (IP42), general purpose
 - installation Wall (surface) mounted, or single gang electrical box
 Dimensions (H x W x D) 5.59 x 5.59 x 2.48 in. (142 x 142 x 63 mm)
 Cable entry 1 hole for 1/2 in. conduit for wall (surface) mounting, and 1 hole on back side of base plate for single gang electrical box mounting

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SPECIFICATIONS

Physical (cont...)	
Wire connection	Terminal blocks, screw type for lead wire
Wire size	Min. 24 AWG (0.25 mm ²), Max. 14 AWG (2.5 mm ²)
Weight	0.7 lbs. (0.3 kg)
Approvals/Listings	CE Conformity according LONMARK® Interoperability Association EMV-Compliance 89/336/EWG, low voltage directives 73/23/EWG
Warranty	Two years material and workmanship, 12 months normal exposure for sensor element

OPTIONS

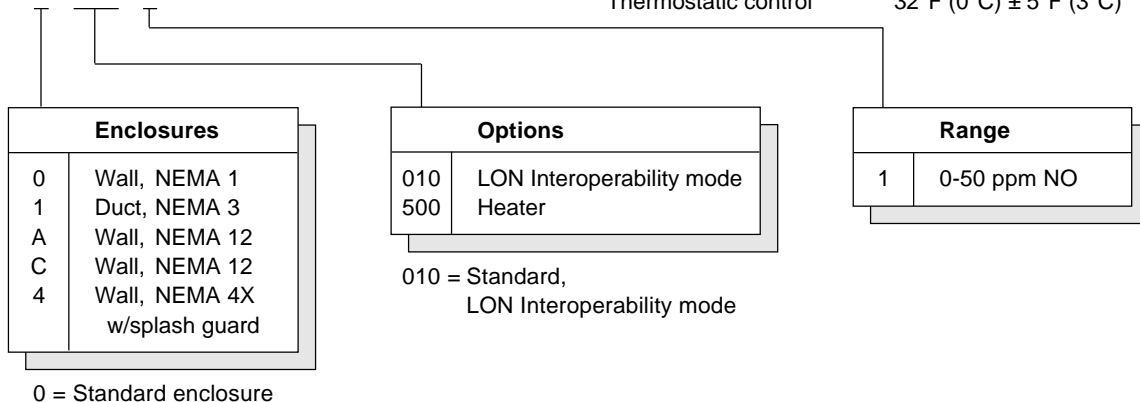
Wall mounted "A"	NEMA 12 (IP55) Polycarbonate, UL 94-HB, fire-retardant UL 50 Light gray Wall (surface) mounted, or single gang electrical box 5.12 x 3.70 x 2.25 in. (130 x 94 x 57 mm) 1 hole for 1/2 in. conduit for wall (surface) mounting, and 1 hole on back side of base plate for single gang electrical box mounting
- material	
- conformity	
- color	
- installation	
- dimensions (H x W x D)	
- cable entry	
- enclosure approval	UL Listed, E208470 CSA Certified, E208470
Wall mounted "C"	NEMA 4X (IP65) Polycarbonate, UL 94-HB, fire-retardant UL 50 Light gray Special moisture filter protection Wall (surface) mount 5.12 x 5.12 x 2.95 in. (130 x 130 x 75 mm) (1) PG 13.5 compression fitting, removeable, hole fits 1/2 in. conduit conductor UL Listed, E208470 CSA Certified, E208470
- material	
- conformity	
- color	
- gas inlet	
- installation	
- dimensions (H x W x D)	
- cable entry	
- enclosure approval	
Wall mounted "4"	NEMA 4X (IP65), w/splash guard ABS UL94 V0 Light gray Wall (surface) mount 4.80 x 4.72 x 3.42 in. (122 x 120 x 87 mm) (1) PG 13.5 compression fitting, removeable, hole fits 1/2 in. conduit conductor For low temperature environment -40°F (-40°C) Power supply 24 VAC/VDC ± 5%, 50/60 Hz Power consumption 1.0 A (24 VA), max. Thermostatic control 32°F (0°C) ± 5°F (3°C)
- material	
- color	
- installation	
- dimensions (H x W x D)	
- cable entry	
Heater, built-in	
Ambient temperature	
Power supply	
Power consumption	
Thermostatic control	

OPTIONS

Enclosures	
Duct mounted "1"	NEMA 3 (IP45) 7/8 in. (22 mm) diameter and 7.16 in. (182 mm) length
- w/probe	
- cable entry	1 hole for 1/2 in. conduit

ORDERING INFORMATION

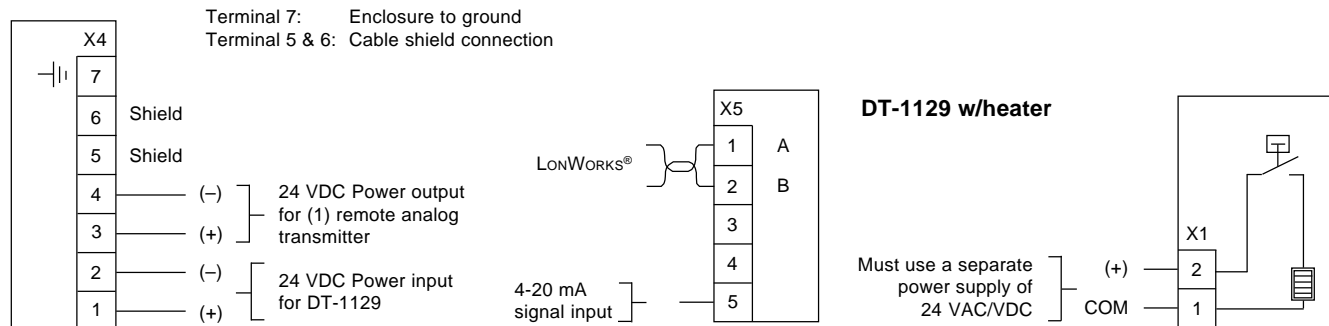
DT-1129 - 0 - 010 - 1 (Product label "DT-1129-x-x10-1 V1")



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WIRING CONFIGURATION

DT-1129



LONMARK®, PRODUCT DETAILS

Product data sheet	PolyGard digital transmitter DT
Device category	Gas Concentration
Communication	TP/FT-10
LONMARK® version	3.2

LONMARK® object	0000 - Node object 0001 - Open loop sensor object 0002 - Open loop sensor object
Download files	8000230A50060402.zip XIF (external interface file)
Standard program ID	8000230A50060402

Standard Network and Configuration Variables

The DT-1129 LON gas transmitters are for direct link to LONWORKS® network. The transmitter functions are made available to the LONWORKS® network as standard network variables according to LONMARK®.

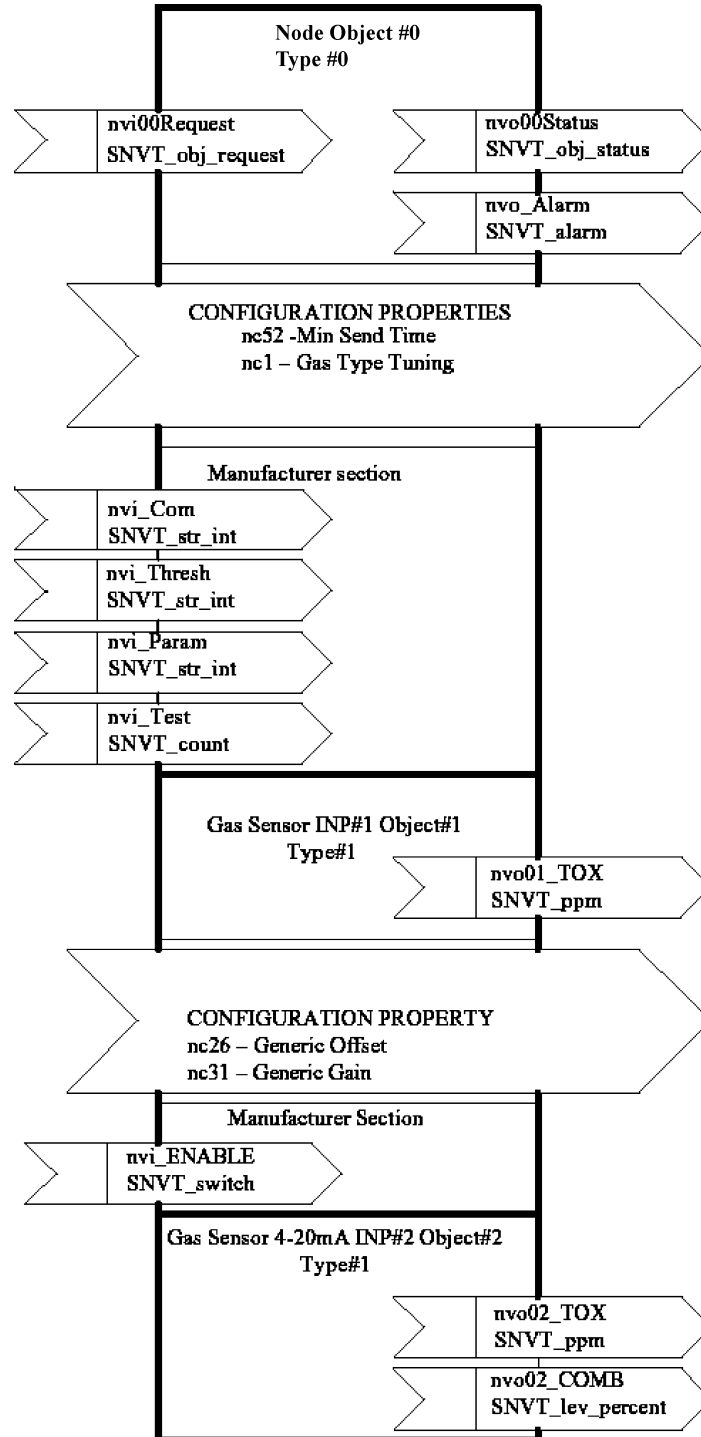


Figure 1.
Measuring Head