

# Nitrogen Oxide (NO) Digital LON Gas Transmitters



**PolyGard NO  
DT-1129**

## DESCRIPTION

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

## APPLICATION

To sense nitrogen 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*



City of Los Angeles  
Approved



LONMARK®  
ASSOCIATE



## 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 Nitrogen 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 m<sup>2</sup>, max. 558 m<sup>2</sup>), 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
- power output 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, general purpose  
 - installation Wall (surface) mounted, or single gang electrical box  
 Dimensions 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  
 Wire connection Terminal blocks, screw type for lead wire  
 Wire size Min. 24 AWG (0.25 mm<sup>2</sup>), Max. 14 AWG (2.5 mm<sup>2</sup>)  
 Weight 0.7 lbs. (0.3 kg)

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**SPECIFICATIONS**

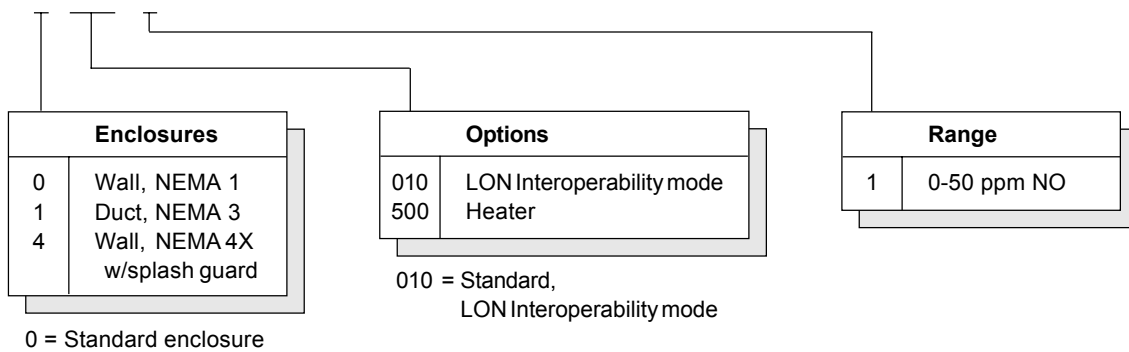
<b>Approvals/Listings</b>	CE City of Los Angeles Conformity according LONMARK® Interoperability Association EMV-Compliance 89/336/EWG, low voltage directives 73/23/EWG
<b>Warranty</b>	Two years material and workmanship, 12 months normal exposure for sensor element

**OPTIONS**

<b>Enclosures</b>	NEMA 3
<b>Duct mounted</b>	7/8 in. (22 mm) diameter and 7.16 in. (182 mm) length 1 hole for 1/2 in. conduit
- w/probe	
- cable entry	
<b>Wall mounted</b>	NEMA 4X, w/splash guard
- material	ABS UL94 V0
- color	Light gray
- dimensions	4.80 x 4.72 x 3.42 in. (122 x 120 x 87 mm)
<b>Heater, built-in</b>	For low temperature environment
Ambient temperature	-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)

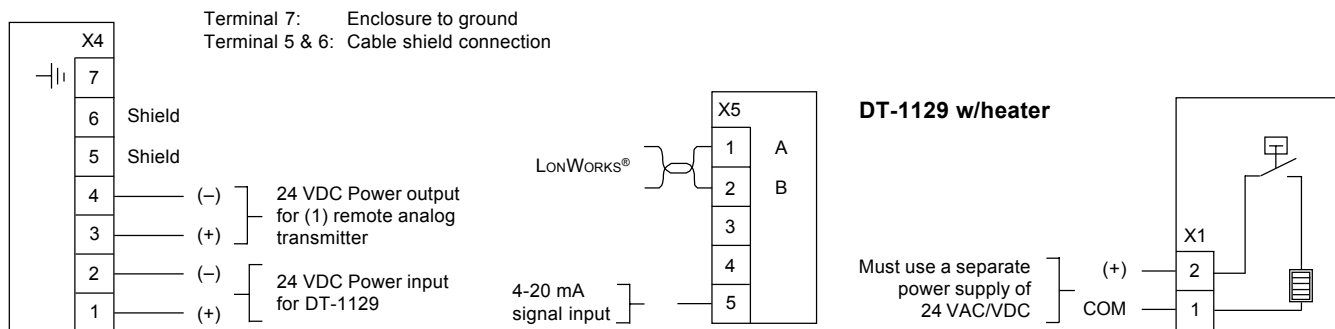
**ORDERING INFORMATION**

DT-1129 - 0 - 010 - 1



**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®.

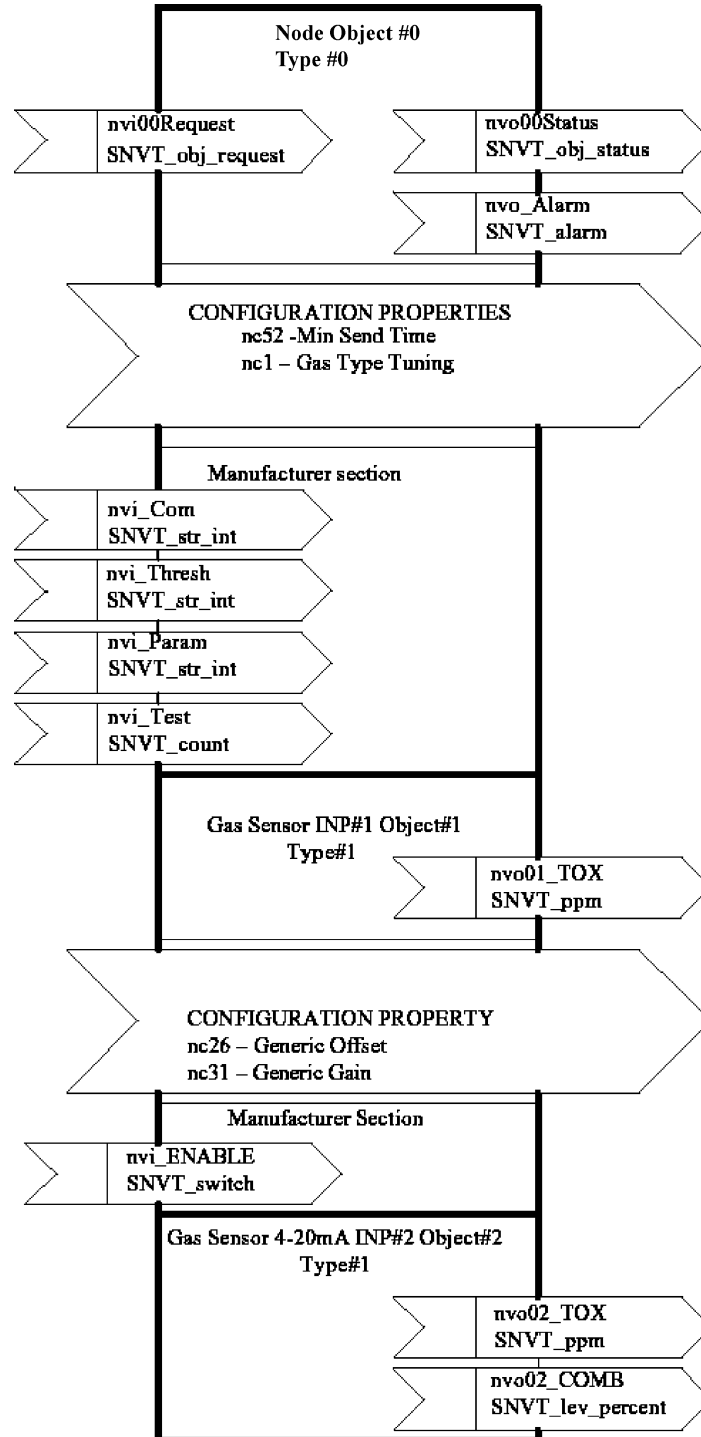


Figure 1.  
Measuring Head