

Oxygen (O₂) Digital LON Gas Transmitters



**PolyGard
DT-1195 V1**

DESCRIPTION

Digital LON gas transmitters for the detection of oxygen (O₂) in the ambient air for direct link to LONWORKS® network.

APPLICATION

To sense oxygen (O₂) in a wide variety of commercial and industrial applications such as unoccupied mechanical or chiller rooms, laboratories, food production areas 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*
- *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 50 mA (1.2 VA)
 RFI/EMI protection 5.0 W @ 1 ft. (0.31 m) radiated

Sensor Performance

Gas detected Oxygen (O₂)
 Sensor element Electrochemical, diffusion
 Range Span field adjustable
 0-25%, air by volume
 Accuracy/Resolution 0.1%
 Repeatability < 0.1% of reading
 Long term output drift < 5% of reading/year
 Response time τ₉₀ < 15 sec.
 Sensor life expectancy 2 years, normal operating environment
 Sensor coverage 2,500 sq.ft., max. 5,000 sq.ft. (232 m², max. 464 m²), under "ideal conditions"

Installation Location

Mounting height 5 to 6 ft. (1.5 to 1.8 m) above floor

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

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 99% 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
 Wire connection Terminal blocks, screw type for lead wire
 Wire size Min. 24 AWG (0.25 mm²), Max. 14 AWG (2.5 mm²)
 Weight 0.7 lbs. (0.3 kg)

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SPECIFICATIONS

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

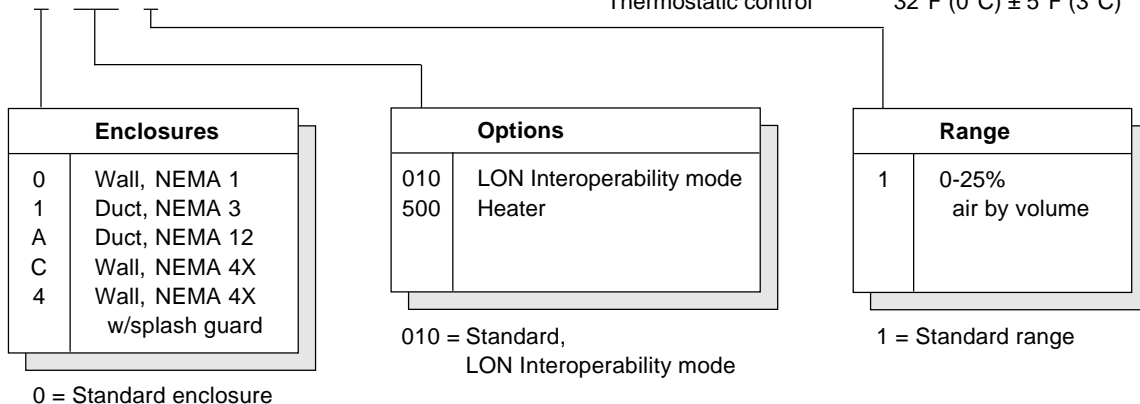
Enclosures	
Duct mounted "1"	NEMA 3 (IP 45)
- w/probe	7/8 in. (22 mm) diameter and 7.16 in. (182 mm) length
- cable entry	1 hole for 1/2 in. conduit

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

ORDERING INFORMATION

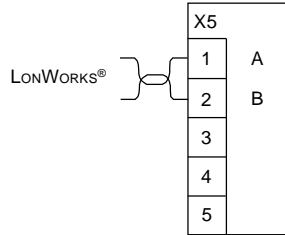
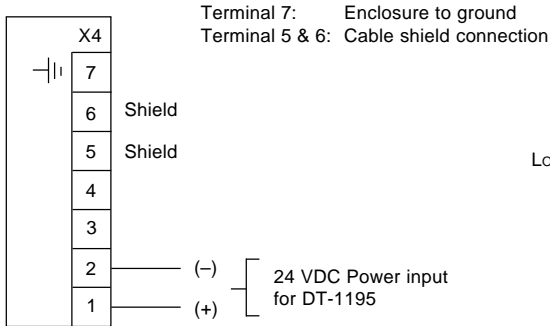
DT-1195 - 0 - 010 - 1 (Product label "DT-1195-x-x10-1 V1")



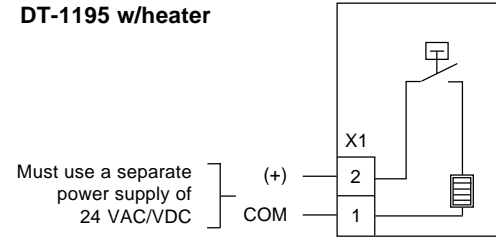
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WIRING CONFIGURATION

DT-1195



DT-1195 w/heater



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-1195 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®.

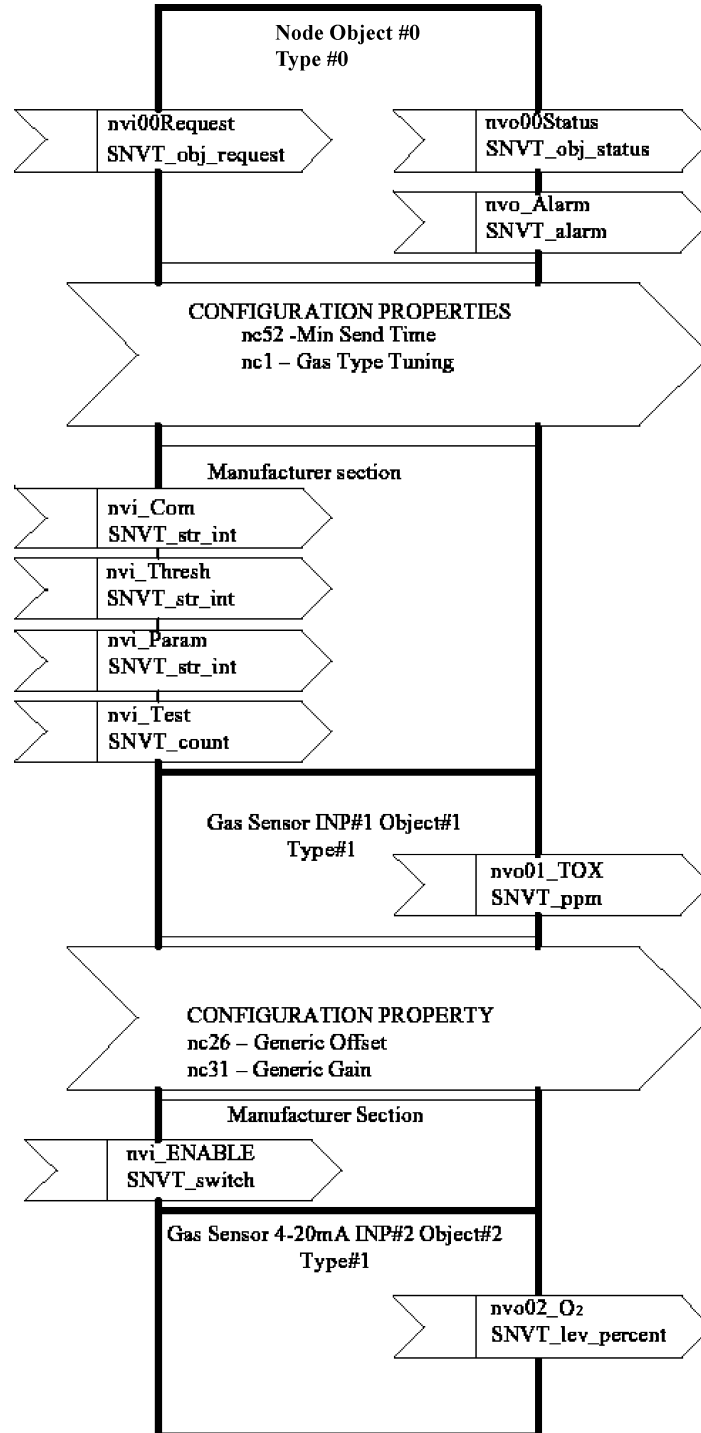


Figure 1.
Measuring Head