

Standard Diffusion Transmitter™

The Diffusion Transmitter can be configured for the detection of hydrocarbon gases, ammonia, arsine, carbon monoxide, chlorine, chlorine dioxide, diborane, fluorine, hydrogen chloride, hydrogen cyanide, hydrogen fluoride, hydrogen sulfide, nitric oxide, nitrogen dioxide, oxygen, ozone, phosphine, silane, and sulfur dioxide



Accessories

- Splash guard
- Remote calibration adapter (combustibles)
- Air-aspirated sample-draw adapter (combustibles)
- Duct-mount adapter (combustibles)
- Flow-through adapter
- Calibration kits

Features

- Easy plug-in electrochemical sensors
- Connects to Thermo's controllers, PLC (Programmable Logic Controllers), or DCS (Distributive Control Systems)
- Housed in a rugged, copper-free aluminum weatherproof enclosure
- Easy one-person calibration
- Combustible gas version, UL Classified for Class I, Division 1, Groups A, B, C, & D, hazardous locations
- Toxic and oxygen versions designed to meet requirements for Class I, Division 2, hazardous locations

Standard Diffusion Transmitter

The Standard Diffusion Transmitter is part of Thermo's complete gas detection family, which includes single gas portable monitors to multi-point integrated systems. You can be confident that our versatile solutions and worldwide customer support will ensure you maximum productivity.

Sensor

Analog Output
4-20 mA

Accuracy
±10% of reading

Repeatability
±5% of reading

Environmental

Operating Temperature
-4°F to 113°F
(-20°C to 45°C)

Humidity
0 to 95% RH,
non-condensing

Construction

Dimensions
6.2 in (158 mm) L x
10 in (254 mm) W x
4 in (102 mm) H

Weight
4 lbs (1.81 kg)

Case Materials
High impact, chemical,
EMI and RFI resistant,
copper-free aluminum

Power

Input Power
+10 to 30 VDC (loop-powered for
oxygen and toxic gases)

Power Consumption
Hydrocarbon (3 wires):
4 watts at 24 VDC

Toxic/O₂ (2 wires): 480 mW
maximum at 24 VDC

Approvals

UL classified for Class I, Division 1,
Groups A, B, C, & D (combustible
only)

Response Time

- 90% in less than 60 seconds (except combustibles, HCL, & HF)
- 90% in less than 70 seconds - HCl
- 90% in less than 90 seconds - HF
- 90% in less than 30 seconds - Combustibles

Warranty

One year (materials and workmanship)

Gas	Sensor Type	Formula	Standard Range
Ammonia	Electrochemical	NH ₃	0 to 100 ppm
Arsine	Electrochemical	AsH ₃	0 to 1.00 ppm
Carbon monoxide	Electrochemical	CO	0 to 500 ppm
Chlorine	Electrochemical	Cl ₂	0 to 10.0 ppm
Chlorine dioxide	Electrochemical	ClO ₂	0 to 2.00 ppm
Combustible	Catalytic	Hydrocarbons	0 to 100% LEL
			0 to 5,000 ppm
Diborane	Electrochemical	B ₂ H ₆	0 to 1.00 ppm
Fluorine	Electrochemical	F ₂	0 to 10.0 ppm
Hydrogen chloride	Electrochemical	HCl	0 to 30.0 ppm
Hydrogen cyanide	Electrochemical	HCN	0 to 50.0 ppm
Hydrogen fluoride	Electrochemical	HF	0 to 10.0 ppm
Hydrogen sulfide	Electrochemical	H ₂ S	0 to 100 ppm
Nitric oxide	Electrochemical	NO	0 to 100 ppm
Nitrogen dioxide	Electrochemical	NO ₂	0 to 20.0 ppm
Oxygen	Electrochemical	O ₂	0 to 30.0% Vol.
Ozone	Electrochemical	O ₃	0 to 1.0 ppm
Phosphine	Electrochemical	PH ₃	0 to 1.0 ppm
Silane	Electrochemical	SiH ₄	0 to 20.0 ppm
Sulfur dioxide	Electrochemical	SO ₂	0 to 20.0 ppm

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