



# Cosmos PS-8 Single Point Gas Detector

DOD Technologies

The PS-8 Single Point Gas Detector can monitor a wide range of toxic and combustible gases, as well as oxygen depletion. This reliable system employs electrochemical, hot-wire and galvanic detection principles utilizing gas-specific sensors.

The PS-8 offers over 125 designed gas calibrations with measurements in PPB, PPM, % LEL and O<sub>2</sub> volume. The device can extract a sample from up to 75 feet away with a robust pump lasting up to seven years. It includes an integrated pyrolyzer for NF<sub>3</sub> monitoring.

Building upon its simpler predecessor (PS-7) for standard single-point use, the PS-8 is a more versatile and adaptable system that allows for greater integration into complex industrial environments through a broader range of communication protocols and modular design.



**CONTINUOUS**



**MONITORING**

**LOW**



**MAINTENANCE**

**PYROLYZER FOR**

**NF<sub>3</sub>**

**DETECTION**

**5-YEAR**



**COMBUSTIBLE  
SENSOR**



## The PS-8 vs PS-7



	PS-8 Single-Point Detector	PS-7 Single-Point Detector
<b>Type</b>	Designed for semiconductor plants, with options for single or multiple sensor units.	Designed for a wide range of toxic and combustible gases and oxygen depletion.
<b>Detection Principle</b>	Supports electrochemical, hotwire semiconductor, and galvanic cell sensors.	Utilizes electrochemical, hot-wire, galvanic, and catalytic bead.
<b>NF3 Detection</b>	Integrated pyrolyzer for immediate use with an NF3 sensor. No separate add-on equipment needed.	Separate NF3-capable unit needed with pyrolyzer.
<b>Sampling System</b>	Pump suction type with automatic flow rate control.	Extractive type with a robust pump.
<b>Display</b>	Full dot matrix monochrome LCD display for displaying gas concentration, gas name, flow rate, and alarm/fault status.	Back-lit LCD for displaying gas concentration.
<b>Output</b>	Versatile options (analog, contact, Ethernet, BLE) via main unit, sub unit and expansion units.	Gas concentration analog output (4-20mA DC), gas alarm contact, trouble alarm contact, and programmable relay outputs.
<b>Power</b>	DC 24V±10% or PoE (on PS-8M)	24V DC +/-10%
<b>Sensors</b>	Conveniently accepts existing PS-7 replacement sensors with simplified front-loading access.	Offers a wide range of pre-calibrated toxic, combustible and oxygen depletion sensors.
<b>Other</b>	SD card slot, Modbus communication capabilities, options for wireless communication, and comprehensive menu options for calibration, alarm settings, and maintenance.	Automatic flow control, easy sensor replacement, and smart sensors that issue an error alarm if the sensor is loaded for a different gas.

## Key Features & Benefits

Features	Benefits
Tool-less Design	Front access for easy sensor replacement
Sensor Compatibility	Accepts PS-7 sensor cartridges (CDS, CHS, COS)
Large Upgraded LCD	Improved trend and alarm history monitoring on-site
Modularity Options	Expansion and sub-unit versions available upon request
Flexible Mounting	Capable of installing using screws or on a DIN rail
BLE (Bluetooth Low Energy)	Optional wireless equipped monitoring capability
PoE (Power Over Ethernet)	Power and data option through a LAN cable (PS-8M)

## Sensor Replacement



The PS-8 unit opens for quick and easy sensor replacement.



Visit [DODtec.com](http://DODtec.com) for additional details or to shop PS-7/PS-8 Series Sensors.

## Detectable Gases

Acetic Acid, 0-2000 ppm  
 Acetone, 0-5000 ppm  
 Acetone, 0-2000 ppm  
 Acetonitrile, 0-5000 ppm  
 Acetylene, 0-100% LEL  
 Acetylene, 0-5000 ppm  
 Acetylene, 0-2000 ppm  
 Ammonia, 0-100 ppm  
 Arsine, 0-0.25 ppm  
 Benzene, 0-200 ppm  
 Butadiene, 0-5000 ppm  
 Butyl Acetate, 0-2000 ppm  
 Carbon Monoxide, 0-250 ppm  
 Carbon Monoxide, 0-100 ppm  
 Chlorine, 0-5 ppm  
 Chlorine, 0-1.5 ppm

Chlorine (non-standard range), 0-10 ppm  
 Chlorine Trifluoride, 0-1 ppm  
 Chlorobenzene, 0-500 ppm  
 Chlorodifluoromethane (R 22), 0-2000 ppm  
 Chloroform, 0-2000 ppm  
 Diborane, 0-0.5 ppm  
 Dichlorosilane, 0-25 ppm  
 Difluoromethane (R 32), 0-2000 ppm  
 Dimethylamine, 0-50 ppm  
 Dimethylamine, 0-15 ppm  
 Dimethylamine, 0-25 ppm  
 1,4 Dioxane, 0-5000 ppm  
 1,4 Dioxane, 0-2000 ppm  
 Disilane, 0-25 ppm  
 Disilane, 0-5 ppm



## Detectable Gases, cont.

Ethane (less interference to others), 0-5000 ppm  
Ethane (less interference to H<sub>2</sub>/IPA), 0-5000 ppm  
Ethanol, 0-5000 ppm  
Ethanol (w/Toluene correlation curve), 0-5000 ppm  
Ethanol, 0-100% LEL  
Ethanol, 0-500 ppm  
Ethanol, 0-2000 ppm  
Ethylene, 0-100% LEL  
Ethylene, 0-2000 ppm  
Ethylene Oxide (EO), 0-5000 ppm  
Ethylene Oxide (EO), 0-2000 ppm  
Fluorine, 0-5 ppm  
Fluorine, 0-3ppm  
Formaldehyde, 0-200ppm  
Gasoline, 0-100% LEL  
Gasoline, 5000 ppm  
Gasoline, 1000 ppm  
Gasoline, 2000 ppm  
Germane, 0-1 ppm  
Hexafluorobutadiene, 0-2000 ppm  
n-Hexane, 0-2000 ppm  
n-Hexane, 0-200 ppm  
Hexane, 0-100% LEL  
Hydrogen (H<sub>2</sub> specific), 0-10k ppm  
Hydrogen (H<sub>2</sub> specific), 0-2000 ppm  
Hydrogen (H<sub>2</sub> specific), 0-1000 ppm  
Hydrogen Sensor (will not detect CH<sub>4</sub>), 0-100% LEL  
Hydrogen Bromide, 0-10 ppm  
Hydrogen Chloride, 0-25 ppm  
Hydrogen Chloride, 0-5 ppm  
Hydrogen Fluoride, 0-10 ppm  
Hydrogen Fluoride, 0-2.5ppm  
Hydrogen Selenide, 0-250 ppb  
Hydrogen Sulfide, 0-50 ppm  
Hydrogen Sulfide, 0-10 ppm  
Hydrogen Sulfide (non-standard range), 0-5 ppm  
Iso-butane, 0-5000 ppm  
Iso-butane, 0-2000 ppm  
Isobutylene, 0-2000 ppm  
Isopropyl alcohol (IPA), 0-100% LEL  
Isopropyl alcohol (IPA), 0-5000 ppm  
Isopropyl alcohol (IPA), 0-2000 ppm  
LPG (Iso-butane basis), 0-100% LEL  
LPG (Iso-butane basis), 2000 ppm  
Methane General Combustible, 0-100% LEL  
Methane General Combustible, 0-5000 ppm  
Methane General Combustible, 0-2000 ppm  
Methane Selective (will not detect H<sub>2</sub>), 0-10k ppm  
Methane Selective (will not detect H<sub>2</sub>), 0-1000 ppm

Methanol, 0-100% LEL  
Methanol, 0-5000 ppm  
Methanol, 0-2000 ppm  
Methyl Bromide, 0-2000 ppm  
Methyl Chloride, 0-1000 ppm  
Methyl Ethyl Ketone (MEK), 0-100% LEL  
Methyl Ethyl Ketone (MEK), 0-2000 ppm  
Methyl Ethyl Ketone (MEK), 0-1000 ppm  
Methyl Fluoride (R41), 0-3000 ppm  
Methyl Fluoride (R41), 0-2000 ppm  
Methyl Pyrolidinoner NMP, 0-2000 ppm  
Methylene Chloride, 0-2000 ppm  
Methylene Chloride, 0-1000 ppm  
Nitric Oxide, 0-100 ppm  
Nitric Oxide, 0-10 ppm  
Nitrogen Dioxide, 0-10 ppm  
Nitrogen Trifluoride, 0-100 ppm  
Nitrogen Trifluoride, 0-30 ppm  
Nitrogen Trifluoride (non-standard range), 0-250 ppm  
Octane, 0-2000 ppm  
Octane, 0-1000 ppm  
Oxygen, 0-25% vol  
Ozone, 0-1ppm  
Pentane, 0-5000 ppm  
Pentane, 0-2000 ppm  
Phosphine, 0-1 ppm  
Phosphorous Trifluoride, 0-10 ppm  
Propane LPG Sensor (will not detect CH<sub>4</sub>),  
0-100% LEL  
Propylene, 0-100% LEL  
Propylene, 0-2000 ppm  
Propyl acetate, 0-100% LEL  
Propyl acetate, 0-2000 ppm  
Propylene glycol monomethyl ether (PGME),  
0-5000 ppm  
Propylene glycol monomethyl ether acetate (PGMEA),  
0-5000 ppm  
Propylene Oxide, 0-2000 ppm  
Silane, 0-25 ppm  
Silane, 0-5 ppm  
Styrene, 0-2000 ppm  
Sulfur Dioxide, 0-25 ppm  
Sulfur Dioxide, 0-10 ppm  
Toulene, 0-2000ppm  
Trans LC, 0-2000 ppm  
Trans LC, 0-1000 ppm  
Trifluoromethane (R23), 0-2000 ppm  
Vinyl Chloride, 0-500 ppm  
Xylene, 0-100% LEL  
Xylene, 0-2000 ppm

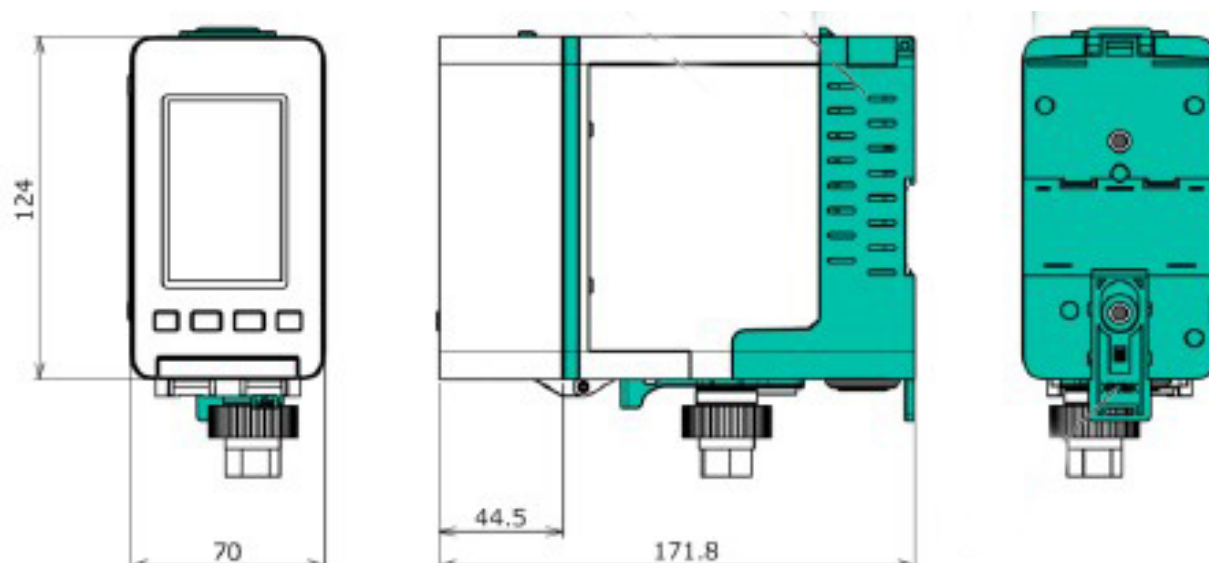


## Specifications

<b>Model</b>		PS-8
<b>Detection Principle</b>	Standard Type	Electrochemical, Hotwire semiconductor, Galvanic cell
	With a Pyrolyzer	Pyrolysis + Electrochemical cell
<b>Sampling Method</b>		Extractive type (Sample flow rate: 0.5L/min, automatic control)
<b>Sampling Tubing*<sup>1</sup></b>		70 ft. (21 m) - 1/4" OD x 3/16" ID Teflon FEP Tubing
<b>Gas Alarm</b>	1 <sup>st</sup> Stage	ALARM 1 red LED lamp: Flashes LCD screen: ALARM 1 is displayed
	2 <sup>nd</sup> Stage	ALARM 2 red LED lamp: Flashes LCD screen: ALARM 2 is displayed
<b>Display</b>		Monochrome LCD full dot display
<b>External Output</b>		Digital signal: Modbus/TCP (PS-8M only)
		Wireless signal: Bluetooth (optional)
		Gas concentration analog output: 4-20mA DC
		Gas alarm contact: 1a no-voltage (common)/Automatic recovery
<b>Operating Temperature/humidity</b>		32°F to 104°F   0°C to 40°C (no rapid temperature change); 30 to 85% RH (no condensation)
<b>Dimensions</b>		4.9"H (124mm) x 2.76"W (70mm) x 6.77"D (172mm), excluding protruding parts
<b>Shipping Weight</b>		Approx. 1.87 lbs. (850g), excluding sensor
<b>Operating Voltage</b>		24V DC +/-10% or PoE (Power over Ethernet, IEEE 802.3af/ANSI X3.263)
<b>Power Consumption</b>		3.5W (Max. 5W)

\*<sup>1</sup> Teflon is recommended but it depends on operating conditions when the gas absorption capacity is high. Please contact us for more information.

## Installation Dimensions





DOD Technologies is the global leader in low-level gas detection systems and solutions. We understand the importance of keeping your employees safe and your business operational. And we know that even false alarms can be extremely costly in terms of lost productivity.

The DOD Technologies portfolio includes fixed systems, portable gas detectors, controllers, onsite and field technical services and system integrations. Our comprehensive line of gas detection products begins with ChemLogic®, which is engineered to an enhanced standard of accuracy and reliability. Our network of knowledgeable sales and service technicians stands ready to assist you, backed by years of gas detection experience.

For more information, or to order, please visit us at [DODtec.com](http://DODtec.com).



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