

Be sure, be safe.

Specifications

		Main Unit		Sub Unit
Model		PS-8N	PS-8M	PS-8S
Sensor Detection Principle		Electrochemical cell, Hot wire semiconductor, Galvanic cell		
Sampling Method		Automatic suction-type (approx. 0.5L/min±20% automated suction flow rate)		
Sampling Pipe		Outer diameter 6mm / inner diameter 4mm (outer diameter 1/4 inch / inner diameter 11/64 inch) PTFE Tubing *1 Tube length less than 20m *2		
Target Gas		Set to user specifications		
Detection Range		Set to user specifications		
Display		Monochrome LCD full dot display Gas concentration: 5- digit display (with units of measurement) Others: gas name, flow rate status, first and second stage alarm indicator, fault alarm	None (Main Unit contains display)	
Power Display		Power source LED (Green)		Power source LED (Green)
Alarm Set Value		Set to user specifications		
Alarm Accuracy		•Combustible gas: ±25% of alarm set value (under same conditions) •Oxygen deficit: ±1vol% of alarm set value (under same conditions)		•Poisonous gas: ±30% of alarm set value (under same conditions)
Alarm Delay		•Combustible gas: within 30 seconds at gas concentration of 1.6 times alarm set value. •Poisonous gas: within 60 seconds at gas concentration of 1.6 times alarm set value. •Oxygen deficiency: within 5 seconds at a gas concentration between 10%vol to 18%vol (at 20±2°C) (Excluding pipe length and communication time for all gases listed above)		
Alarm Display		1st stage Gas Alarm: Alarm 1 flashing LED (red) LCD screen: ALARM 1 display 2st stage Gas Alarm: Alarm 2 flashing LED (red) LCD screen: ALARM 2 display		
Fault Diagnosis		Internal failure, sensor abnormality, flow rate drop abnormality, power voltage abnormality, unit communication failure, sensor incorrect insertion		
Fault Alarm Display		Fault alarm: flashing LED (yellow) + corresponding event icon		Fault alarm: flashing LED (yellow)
Maintenance Mode Display		Maintenance: flashing LED (blue) (Maintenance mode 1: flashing, Maintenance mode 2: rapid flashing) + corresponding event icon		Maintenance: flashing LED (blue) (Maintenance mode 1: flashing, Maintenance mode 2: rapid flashing)
External Output	Digital signal*3	*When using the expansion unit MR module RS485 (Modbus-RTU)		Ethernet 10BASE-T/100base-Tx (Modbus/TCP) Modbus/TCP (Maximum number of connections depends on system configuration) Maximum transmission distance 100m (to HUB)
	Gas concentration analog signal*4	DC4-20 mA (common negative with power source) (Output accuracy: within FS ± 0.5%) *0.6 mA or less when a fault alarm indication occurs *The resistance, including wiring resistance, must be 300 Ω or less		
	Combined gas alarm contact (1st and 2nd stage), Combined fault alarm indication contact*5	1a non-voltage contact/automatic return *Rated load: AC125V 0.5A or DC30V 1.0A (resistive load) *Individual contact outputs require an expansion unit.		
Explosion-proof Rating		Non-explosion-proof		
Terminal Connection Cable	Terminal block (3pin x 1, 6pin x 1)	Compatible cables: CVV 1.25 mm ² and others Target signal: power source Gas alarm contact (1- stage and 2- stage) Trouble alarm contact		
	Terminal block (3pin x 1) RJ-45 connector 8P8C	Compatible cables: CVV-S 1.25 mm ² and others none		Compatible cables: Cat5e STP Ethernet cable or newer Target signal: Digital Ethernet 10BASE-T/100base-Tx and PoE power source
Operating Temperature and Humidity Range		0 °C to 40 °C (with no sudden changes), 30 to 85%RH (with no condensation)		
Power Source Used		DC24V ± 10%	DC24V ± 10% or PoE (Power over Ethernet, IEEE 802.3at)	Supplied from the main unit
Power Consumption*6		CDS-7: 3.5 W (max. 5.2 W) CDS-7 (catalytic conversion type): 4.0 W (max. 5.9 W) COS-7: 3.5 W (max. 5.2W) CHS-7: 4.0 W (max. 5.9W)		CDS-7: 2.7W (max. 3.5 W) CDS-7 (catalytic conversion type): 3.0W (max. 3.8 W) COS-7: 2.7W (max. 3.5 W) CHS-7: 3.2W (max. 4.2 W)
Dimension		W70 mm x H124 mm x D172 mm (excluding protrusions)		
Mass		Approx. 850 g (excluding sensor)		
Attachment Type		Wall mounted or DIN rail		

Expansion unit (up to 2 modules can be installed)					
Model		PS-8EU			
Module		AO module (analog output)	DO module (contact output)	MR module (Modbus-RTU)	AI module (analog input)
External Output	Signal type	Gas concentration analog signal	Gas alarm contact (1- stage and 2- stage), fault alarm indication contact	Modbus-RTU (Maximum number of connections: 32 (including master))	
	Output number	4	2	1	
	Output	DC4-20mA (Common negative terminal with power source) (Output accuracy: within FS ± 0.5%) *0.6 mA or less when a fault alarm indication occurs *The resistance, including wiring resistance, must be 300 Ω or less	1a non-voltage contact/automatic return *Rated load 125 VAC 0.5 A or 30VDC 1.0 A (Resistive load)	Communication method: RS485 2- wire half duplex Maximum transmission distance: 1.2 km (to host device) Speed: 4800bps, 9600 bps, 19200 bps, 38400 bps	
External Input	Signal type				4-20 mA analog input
	Input number				2
Power Source Display		Power source LED (green)			0-21.6 mA
Communication Display					
Explosion-proof Rating		Non-Explosion-proof			
External connection terminal compatibility/cable		Terminal block (12pin x 1, 1pin x 1) Compatible cables: CVV-S 1.25 mm ² and others	Terminal block (12 pin x 1) Compatible cables: CVV-S 1.25 mm ² and others	Terminal block (3pin x 1, 1pin x 2) Compatible cables: CVV-S 1.25mm ² and others twisted pair shielded cable	Terminal block (3pin x 2, 1pin x 1) Compatible cables: CVV-S 1.25 mm ² and others
Operating Temperature and Humidity Range		0 °C to 40 °C (with no sudden changes), 30 to 85%RH (with no condensation)			
Power Source Used		Supplied from the main unit			
Power Consumption*7		1.1 W (max. 2.2 W)	0.8 W (max. 1.6 W)	1.1 W (max. 1.4 W)	0.8 W (max. 1.1 W)
Dimensions		W60 mm x H124 mm x D172 mm (excluding protrusions)			
Weight		Approx. 410 g			
Mounting Method		Wall mounted or DIN rail			

*1 Request separately piping in inches. *2 For gases with strong adhesion like Halogen, recommend piping of 5m or less. In areas with high dust levels it may be necessary to shorten and periodically replace piping more than the recommendation. *3 Modbus-RTU can be used with Ethernet or dispersion unit. *4 The Main Unit analog output is limited to the Main Unit. The Sub Unit sensor analog output requires the AO expansion module. The AO expansion module can output analog signals from the Main Unit allowing for multiple connections. *5 When installing two or more sensors using a Sub Unit and using individual contact output, use a DO expansion module. In this case, the individual outputs for the sensors installed in the Main Unit will be output from the expansion unit (the main unit's contacts will be output all at once). *6 When using both analog and digital output, power consumption increases dramatically. *7 Power consumption when using the maximum number of modules. The above information may be subject to change without notice.

NEW COSMOS ELECTRIC CO., LTD.

Offices

Head Office (Osaka, Japan)
2-5-4 Mitsuyanaoka, Yodogawa-ku, Osaka, Japan 5320036
Phone: +81-6-6885-8484
E-mail: e-info@new-cosmos.co.jp

Thailand Office
4345 Bhiraj Tower at BITEC, 23rd Floor, Sukhumvit Rd., South Bangna, Bangna, Bangkok 10260 Thailand
Phone: +66-2-017-5175
E-mail: info.cosmosthailand@new-cosmos.co.th

Paris Office
128 Rue Du Faubourg Saint-Honore, 75008 Paris, France
Phone: +33 6-62-93-51-53
E-mail: info@new-cosmos.fr

Group Companies

NEW COSMOS ELECTRIC (SHANGHAI) CO., LTD.
4th Plant No.385, Dongxing Road, Songjiang Industrial Zone, Shanghai, China 201613
Phone: +86-21-6774-3138
E-mail: info@new-cosmos.com.cn

NEW COSMOS ELECTRIC KOREA CO., LTD.
3F,4F BMY Tower, 16, Teheran-ro 27-gil, Gangnam-gu, Seoul, Korea
Phone: +82-2-555-3102
E-mail: info@new-cosmos.co.kr

TAIWAN NEW COSMOS ELECTRIC CO.,LTD
10F-3, No. 93, Shuiyuan St., East Dist., Hsinchu City 300042, Taiwan
Phone: +886-3-574-4593
E-mail: cosmost1@ms75.hinet.net

New Cosmos USA, Inc.
650 Warrenville Road, Suite 101, Lisle, IL 60532, USA
Phone: +1-847-749-3064
E-mail: support@newcosmosusa.com

New Cosmos-BIE (Netherlands)
Maxwellstraat 7, NL-1704 SG, Heerhugovaard, the Netherlands
Phone: +31-72-576-5630
E-mail: sales@newcosmos-europe.com

SEMICONDUCTOR GAS DETECTOR
PS-8 SERIES

Developed with the highest level of technical prowess

Features

1. Long-life Sensors
2. Integrated thermal decomposition converter
3. Easy visual verification using large LCD screen



SAFETY WARNING

Carefully read the instruction manual prior to use.
Select and use the device designed to detect the required type of gas. Use of a wrong sensor type may cause an accident.