

Be sure, be safe.

**COSMOS**

SINGLE-POINT GAS ALARM SYSTEMS  
**NV-120 SERIES**

**Compact and High-performance  
Single-point Gas Alarm Systems with Color LCD**

Capable of measuring Combustible gas, Oxygen and Toxic gas



**Features**

- Color LDC for gas concentration display and various settings



- Improved operability with jog dial



- Audio alarm (voice message) is available in four languages.

\*Only English and Japanese are available for on-screen languages

	English	Japanese	Chinese	Korean
Gas Alarm	Danger! Gas Alarm	ガス警報です	气体泄漏警报	가스 경보입니다
Alarm Unit Failure	Main unit failure	本体が故障です	报警部故障	본체 고장입니다
Gas Detector Failure	Detector failure	検知部が異常です	検測器異常	검지기 이상입니다
Under Maintenance	Test in progress	点検中です	维护中	점검중입니다

- Optional backup power supply unit to provide emergency power in the event of power outage

\*Max.7 days (diffusion type) or 2 days (extractive type) during intermittent gas monitoring and max.120 min. during continuous gas monitoring after power outage.

**Specifications**

Model	NV-120Mx	NV-120Cv	NV-120Ci	NV-120Hv	NV-120Hi	NV-120Dx	NV-120Sx
Connectable Detectors*1	KD-12 PD-12	KD-5	KD-2A PE-2DC	KD-5	KD-2A PD-2DC	KS-2D PS-2DP	KS-2O PS-2OP
Detection principle	— (4-20mA input)	Catalytic		Hotwire semiconductor		Electro chemical	Galvanic cell
Target gas	As per connected gas detector	Combustible gas				Toxic gas	Oxygen
Power voltage	AC type: 100 to 240 VAC±10% or DC type: 24 VDC (18 to 26.4 VDC)*2						
Power consumption*2				AC type			DC type
	Non-backup power type			Standard	Max.	Standard	Max.
	Backup power type			2.0 VA	3.4 VA	2.0 W	3.4 W
External outputs	•Power output: 24 VDC ± 10% Max.0.3 A			In the event of a power outage: ≤ 0.6 mA (for 4-20 mA type) and ≤ 0.25 V (for 1-5 V type)			
	•Signal output: 4-20 mA analog or 1-5 V*2			Max. load: 250 VAC 2 A, 30 VDC 2 A (resistive load)			
Display	•1st stage gas alarm contact: Dry, N.O. or N.C.*2			Max. load: 250 VAC 2 A, 30 VDC 2 A (resistive load)			
	•2nd stage gas alarm contact : Dry, N.O. or N.C.*2			Max. load: 250 VAC 2A, 30 VDC 2 A (resistive load)			
Status indicator	•Fault contact: Dry, N.O. or N.C.*2			Max. load: 250 VAC 2A, 30 VDC 2 A (resistive load)			
	•Audio alarm contact: Dry, N.O.			Max. load: 250 VAC 2A, 30 VDC 2 A (resistive load)			
Display	Color LCD with backlight						
Status indicator	Green POWER LED, red ALARM LED (1st stage gas alarm: flashes and 2nd stage gas alarm: flashes rapidly) and amber FAULT LED						
Gas alarm	•1st stage gas alarm: ALARM LED flashes red + LCD turns orange + beeping + voice message "Gas alarm" •2nd stage gas alarm: ALARM LED rapidly flashes red + LCD turns red + fast beeping + voice message "Gas alarm"						
Fault alarm indication	FAULT LED lit amber + error code on display + fast beeping + voice message*4						
Compliance	EMC directive (2014/30/EU)*5 and RoHS directive (2011/65/EU)*5						
Color	Case and cover: DIC546 1/2 Backup battery unit: Munsell 10Y8.5/1						
Mass	Non-backup power type: Approx. 750g						
	Backup power type: Approx. 2.2kg						
Dimensions	Non-backup power type: W113mm×D77mm×H219mm						
	Backup power type: W113mm×D115mm×H234mm						
Operating temperature	Non-backup power type: -10 to 50°C Backup power type: 0 to 40°C No rapid temperature change.						
Operating humidity	0 to 90%RH No condensation.						
Backup power type*2, 7 and 8	Without intermittent gas-monitoring mode			In the event of a power outage, the unit will continue continuous gas-monitoring for another 120 minutes or more.			
	With intermittent gas-monitoring mode			In the event of a power outage, the unit will continue continuous gas-monitoring for another 120 minutes, followed by intermittent monitoring (10 seconds each at 15-minute intervals). The intermittent monitoring will last for max. 7 days when connected to diffusion type gas detector and max. 2 days when connected to extractive type.			

\*1 Other detectors can also be connected. Please contact us for more information. \*2 Must be specified at the time of ordering. \*3 Consumption power of the connected gas detector is excluded. \*4 Voice message changes depending on the nature of the fault. \*5 CE marking specification applies to NV-120Mx which uses 24 VDC power. Refer to the "EU Declaration of Conformity" (separate document) for information on the CE marking unit. \*6 None of the hazardous substances restricted by the RoHS directive is used in this product. \*7 Backup power type units are all AC type units. Only NV-120Ci and NV-120Cv models have intermittent gas-monitoring mode. \*8 Gas alarm accuracy is compromised during the intermittent gas-monitoring mode, since the sensor output becomes unstable during this mode, as a result, a gas alarm may be activated even though the concentration does not reach the gas alarm set value. \*Only New Cosmos-manufactured gas detector can be connected to this product. \*Specifications above may be subject to change without notice. \*N.O.: Normally open. \*N.C.: Normally closed.

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**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.