

One-Point Type

One-Point Type Gas Detection & Alarm System

NV-100 Series



Features

Full maintenance functions with very easy zero and span adjustment.
 Proven reliability with years of experience - COSMOS gas sensors have a small zero drift, a small sensitivity decrease, and a long life.
 Zero suppression function cancels slight fluctuations of the reading due to environmental change.
 Compact Indicator/Alarm unit - W113xH204xD71.5mm, approx. 1.5kg.
 Battery provides backup power in case of a power failure, allowing continuous monitoring over 60 minutes after the failure. (option)

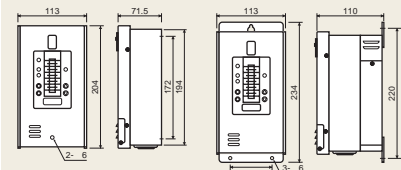
Type Explanation

NV-100

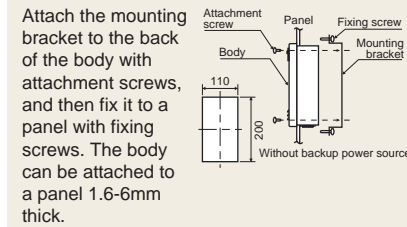
- C For combustible gas
- H For combustible gas (High sensitive)
- D For toxic gas/semiconductor manufacturing gas
- S For oxygen

Dimensions (Indicator/Alarm Unit)

Without Backup Power Source With Backup Power Source



Panel Mount Type

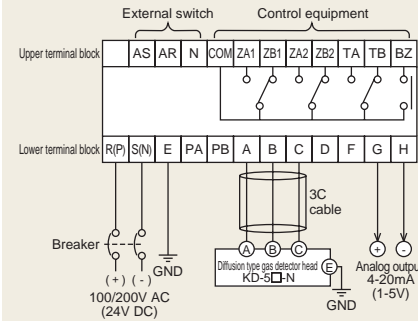


Indicator/Alarm Unit Specifications

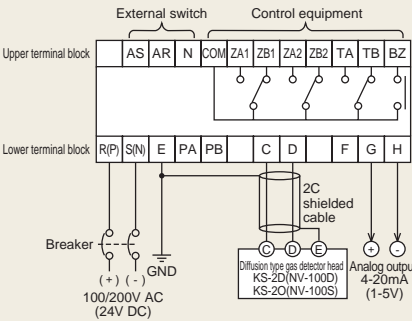
Model	NV-100C	NV-100H	NV-100D	NV-100S
Detection Principle	Catalytic combustion	Hot wire semiconductor	Controlled potential electrolysis	Galvanic cell
Gas Detected	Combustible gas (LPG, Methane, etc.)		Toxic gas/ Semiconductor manufacturing gas	Oxygen (deficiency/leakage)
Detection Range	0-100%LEL	As per specifications	As per specifications	0-25vol% (deficiency) 0-50vol% (leakage)
Concentration Indicator	LCD bar-graph meter with backlight			
Alarm Accuracy	±25% of an Alarm Set Value		±30% of an Alarm Set Value	±1.0vol% of an Alarm Set Value (Conforms to JIS T 8201)
Operating Temperature Range	0°C to 40°C			
Power Source/Power Consumption	100-240V AC, 50/60Hz (standard), 24V DC (option); Diffusion type: 12VA/17VA (with the backup power source), Suction type: 4VA per unit to be added			
Alarm Indication	1st stage: Red lamp for 1st stage alarm flashing 2nd stage: Red lamps for 1st and 2nd stage alarms flashing			
Trouble Indication	Power source lamp lights up in orange			
External Output	Alarm output terminal: 1st alarm (1c no-voltage contact), 2nd alarm (1c no-voltage contact), Trouble alarm (1c no-voltage contact); Buzzer (1a no-voltage contact); Analog output: 4-20mA; Contact capacity: 2A@100V AC (resistance load)			
Dimensions	Without backup power source: W113xH204xD71.5mm, Approx. 1.5kg With backup power source: W113xH234xD110mm, Approx. 3kg			

Terminal Arrangements

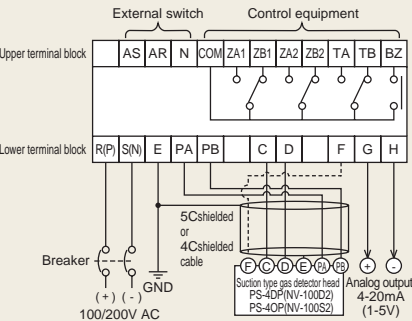
NV-100C/100H (Diffusion type detector head)



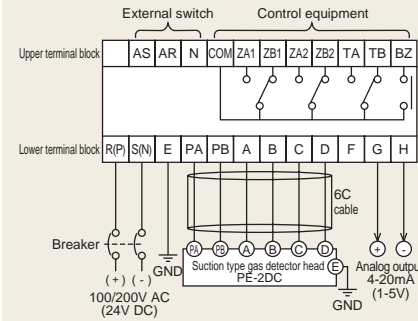
NV-100D/100S (Diffusion type detector head)



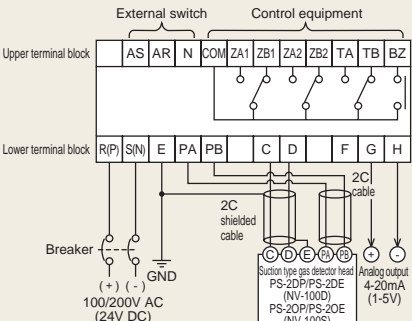
NV-100D/100S(PS-4DP/PS-4OP)



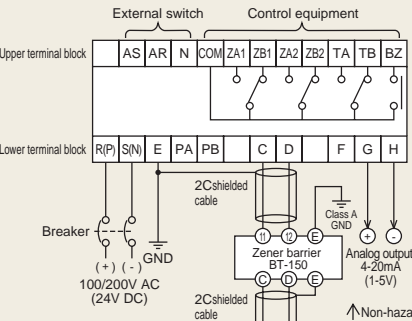
NV-100C/100H(Suction type detector head)



NV-100D/100S(Suction type detector head)



NV-100D/100S(KS-2D/2DE/KS-2O/2OE)



Indicator/Alarm Unit

For combustible gas



NV-100C

For combustible gas (high sensitive)



NV-100H

For toxic gas/semiconductor manufacturing gas



NV-100D

For oxygen



NV-100S

Gas Detector Head

Model	Sampling Method	Explosion-Proof Structure	Cable	Detection Principle	Gas Detected
KD-5A-N	Diffusion	d3aG4	CVV-3C	Catalytic combustion sensor	Combustible gas
KD-5B-N		d2G4			
PE-2DC	Suction	d2G4	CVV-6C	Catalytic combustion sensor	Combustible gas

Model	Sampling Method	Explosion-Proof Structure	Cable	Detection Principle	Gas Detected
KD-5A-N	Diffusion	d3aG4	CVV-3C	Hot wire semiconductor sensor	Combustible gas
KD-5B-N		d2G4			
PE-2DC	Suction	d2G4	CVV-6C	Hot wire semiconductor sensor	Combustible gas

Model	Sampling Method	Explosion-Proof Structure	Cable	Detection Principle	Gas Detected
KS-2D	Diffusion	i3nG5*	CVVS-2C	Controlled potential electrolysis sensor	Toxic gas/ Semiconductor manufacturing gas
PS-2DP PS-4DP	Suction	—	CVV-2C for Pump CVVS-2C for Signal 5C shielded	Controlled potential electrolysis sensor	Toxic gas/ Semiconductor manufacturing gas

* With a Zener barrier

Model	Sampling Method	Explosion-Proof Structure	Cable	Detection Principle	Gas Detected
KS-2O	Diffusion	i3nG5*	CVVS-2C	Galvanic cell sensor	Oxygen concentration
PS-20P PS-40P	Suction	—	CVV-2C for Pump CVVS-2C for Signal 5C shielded	Galvanic cell sensor	Oxygen concentration

* With a Zener barrier