

For safe handling of high boiling point solvent drying equipment

Flame-proof Furnace Safety Monitor



NMP model

MODEL	Type of protection	Operating temperature range	Concentration Display Area
GD-A2400	Flame-proof enclosure (Ex db IIC T3 Gb)	0 to 160°C	Displayed when connected to separate reading alarm unit
SD-2500			Integrated into main unit

General combustible gas model

MODEL	Type of protection	Operating temperature range	Concentration Display Area
SD-2600	Flame-proof enclosure (Ex db IIC T2 Gb)	0 to 200°C	Integrated into main unit
SD-2700	Non-explosion-proof	0 to 250°C	

IECEX
ATEX
TIIS (Japan Ex)
UL

- Able to detect high boiling point solvents
- Flame-proof testing temperature range (0 to +160°C **GD-A2400 SD-2500**)
(0 to +200°C **SD-2600**)
- Can be used at 200°C or more (Operating temperature range: 0 to 250°C **SD-2700**)
- Accurately detects concentration at center of equipment
- Concentration display area integrated into main unit
(no need for dedicated indicator unit **SD-2500 SD-2600 SD-2700**)
- Easily make adjustments by simply tapping control keys

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Why does equipment need to be explosion proof?

High boiling point solvents are vaporized inside drying equipment, and can generate a mixture of explosive gases

Locations inside dry equipment can be dangerous

Class 1 hazardous zone: A location where an explosive atmosphere can be generated under normal conditions

Class 2 hazardous zone: A location where an explosive atmosphere is not generated under normal conditions and will be present for only a short time even if it is generated

Electrical machinery and equipment used in dangerous locations must have explosion-proof performance

(Industrial Safety and Health Act Article 280)

Explosion-proof electrical equipment must be selected to suit the ambient temperature

(Explosion Prevention Guidelines)

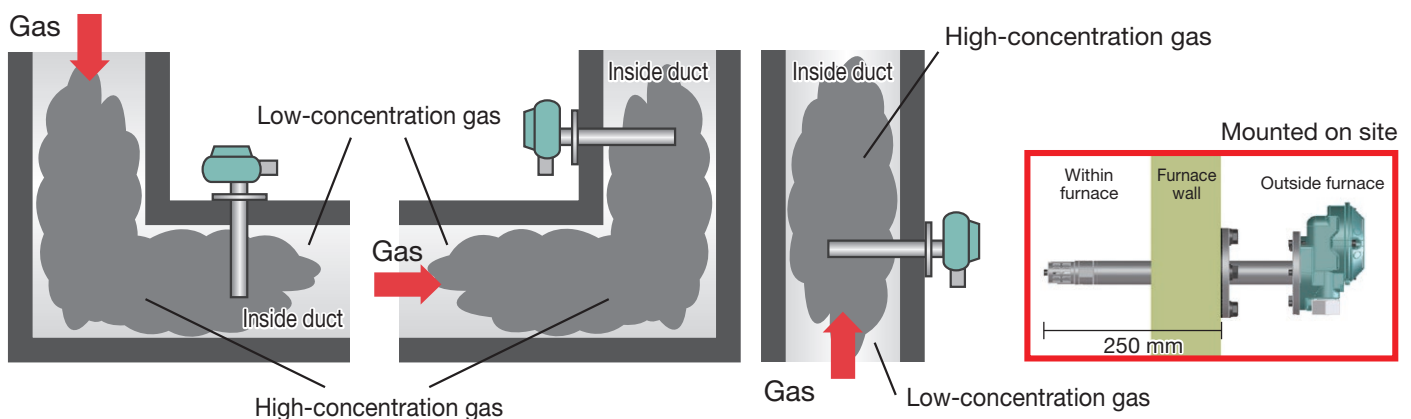
The explosion-proof performance (pressure-resistant explosion-proof structure) of this device means it can be used in dangerous locations!

It has a wide operating temperature range of up to 160°C for the GD-A2400 and SD-2500, and up to 200°C for the SD-2600!

Can be used safely within drying equipment!

Why is a long insertion section required?

Gas concentrations within drying equipment or exhaust ducts may not be even



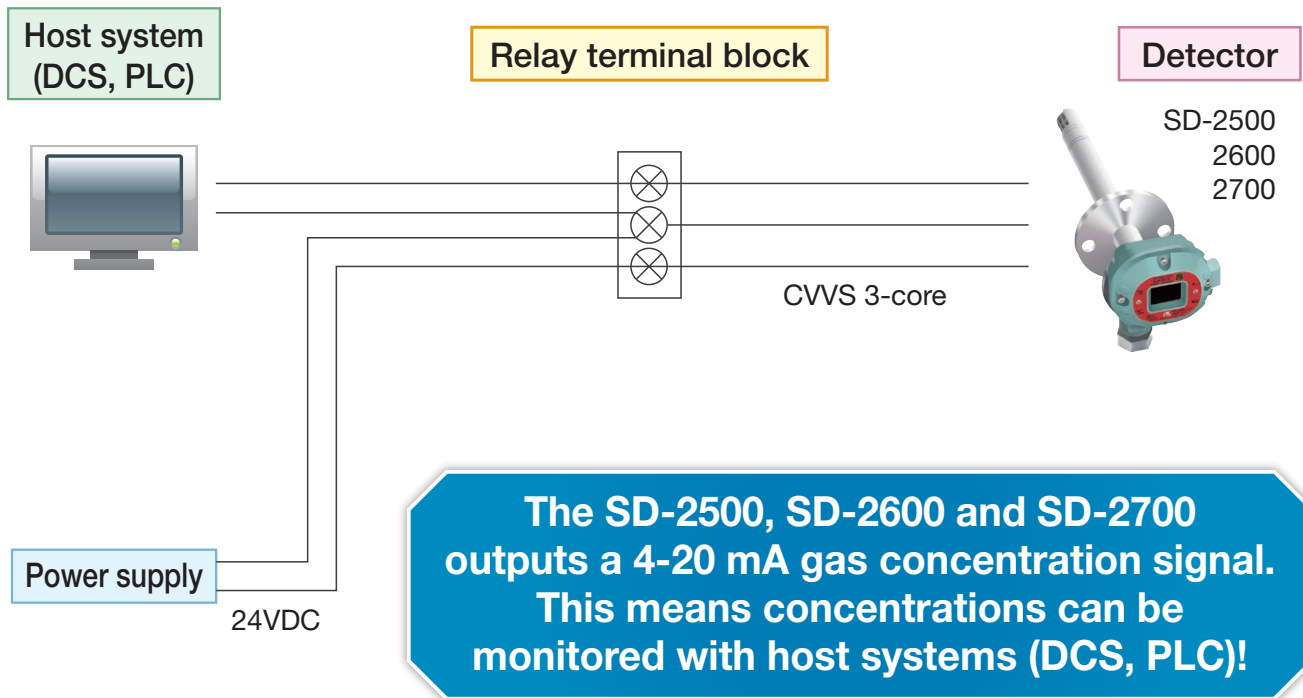
For safety reasons, high concentrations of gases within drying equipment or exhaust ducts must be detected

The insertion section of the gas detector needs to be a certain length in order to detect locations with high concentrations of gas

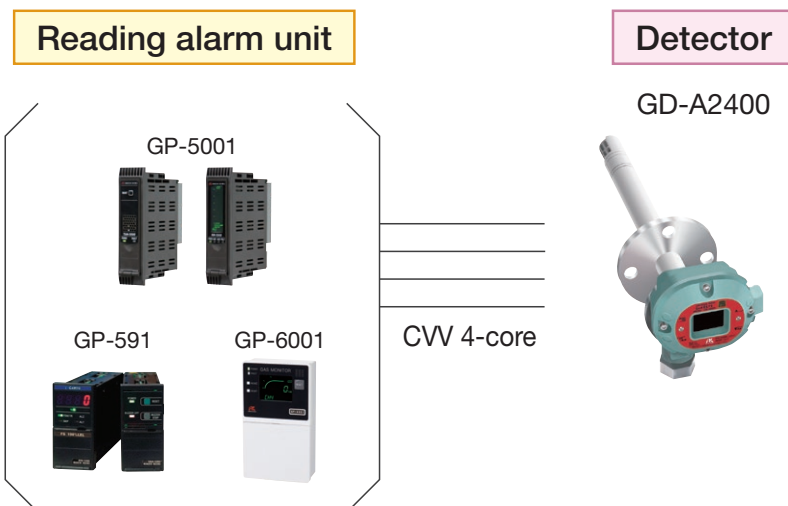
The length of the insertion section of this device is 250 mm!
This enables detection of locations with high concentrations of gases within drying equipment or exhaust ducts!

Example of System Configuration

Example of connection with host system (DCS, PLC)

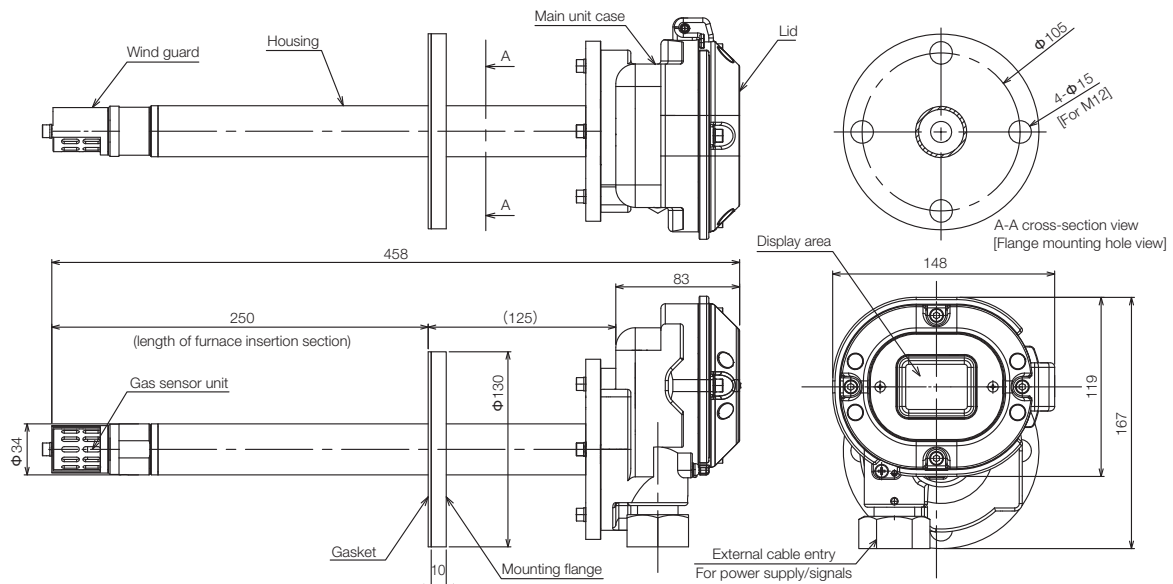


Example of connection with reading alarm unit



GD-A2400 has the same output signal as that of GD-A250, so concentrations can be monitored using existing reading alarm units!

Outline drawings



Specifications

Model	GD-A2400	SD-2500	SD-2600	SD-2700
Detection principle	Catalytic combustion type			
Detection gas	combustible gas			
Detector method	Direct insertion type			
Type of protection	Flame-proof enclosure			Non-explosion
Explosion-proof class	IECEx Ex db IIC T3 Gb ATEX II 2G Ex db IIC T3 Gb Japan Ex Ex d IIC T3	IECEx Ex db IIC T2 Gb ATEX II 2G Ex db IIC T2 Gb Japan Ex Ex d IIC T2	—	
Operating temperature range	Furnace insertion section: 0 to +160°C (no sudden changes) Main unit case (ambient temperature): 0 to +50°C (no sudden changes)	Furnace insertion section: 0 to +200°C (no sudden changes) Main unit case (ambient temperature): 0 to +50°C (no sudden changes)	Furnace insertion section: 0 to +250°C (no sudden changes) Main unit case (ambient temperature): 0 to +50°C (no sudden changes)	Furnace insertion section: 0 to +250°C (no sudden changes) Main unit case (ambient temperature): 0 to +50°C (no sudden changes)
Detection range	0 to 100%LEL*1	0 to 100%LEL		
Display	Depending on reading alarm unit	7 segment LED (4 digit) display		
Alarm delay	Within 30 seconds (time taken for an alarm to be issued when gas with 1.6-times the alarm setting concentration is detected.)*1	Within 30 seconds (Time taken for an alarm to be issued when gas with 1.6-times the alarm setting concentration is detected.)		
External output	Depending on reading alarm unit	Gas concentration signal/alarm contact (Gas alarm or fault alarm, or common gas/fault alarm)		
Transmission cable	CWVS, 1.25 sq, 4-core	CWVS, 1.25 sq, 3-core (CWVS, 1.25 sq, 5-core for alarm contact)		
Power supply	Supplied from reading alarm unit	24VDC ± 10%, power consumption approx. 3 W(MAX)		
Outer dimensions/weight	Approx. 148 (W) × 167 (H) × 458 (D) mm (excluding protrusions) Furnace insertion section: Φ34 × 250/Approx. 4.6kg			
Standard accessories	Dedicated control lever, flange gasket, exhaust direction nameplate	Dedicated control lever, dedicated control key, flange gasket, exhaust direction nameplate		

*1 If connected to a reading alarm unit

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* The contents described in this catalog are subject to change without notice according to the performance improvement.