

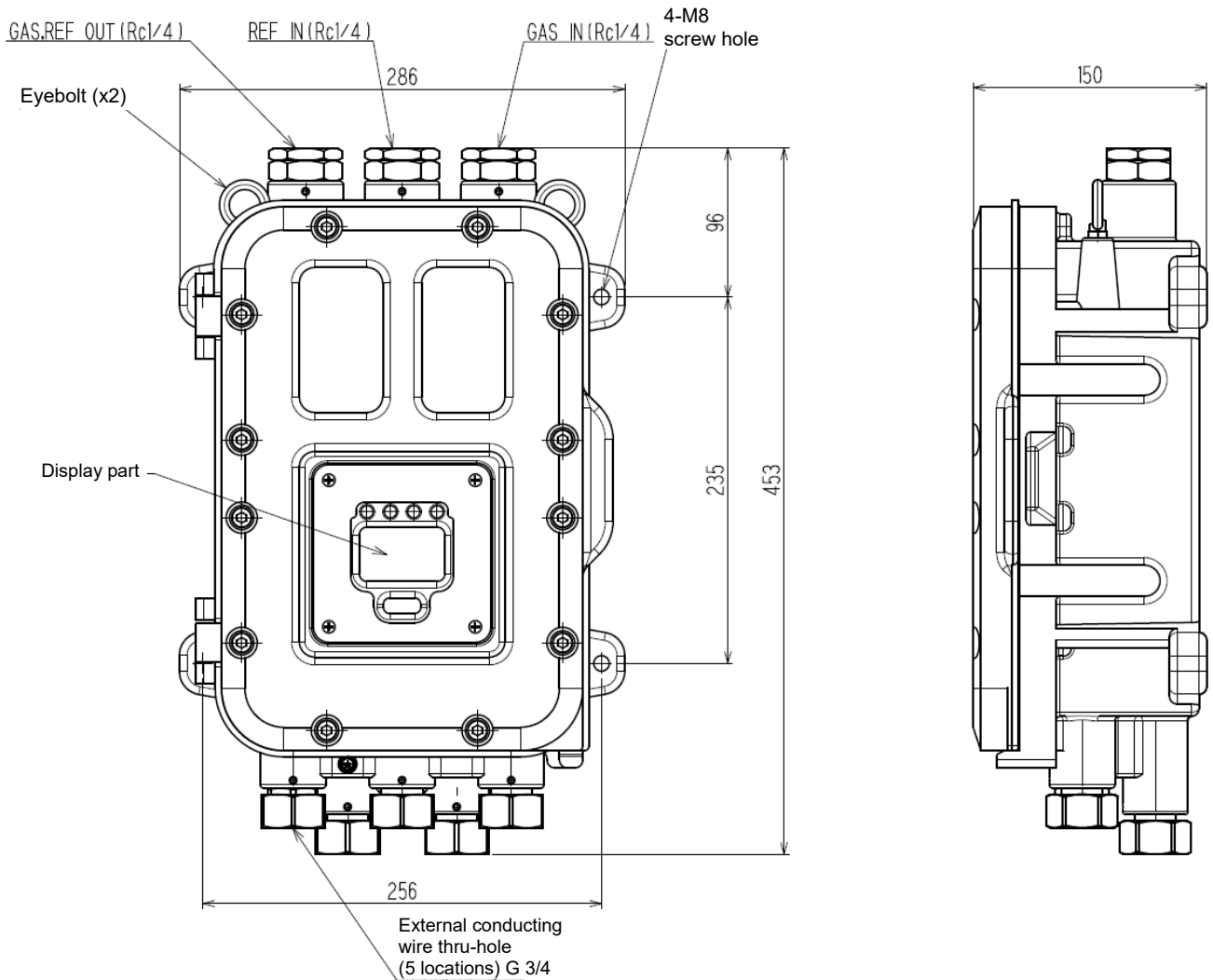
Gas Monitor

FI-900 specifications

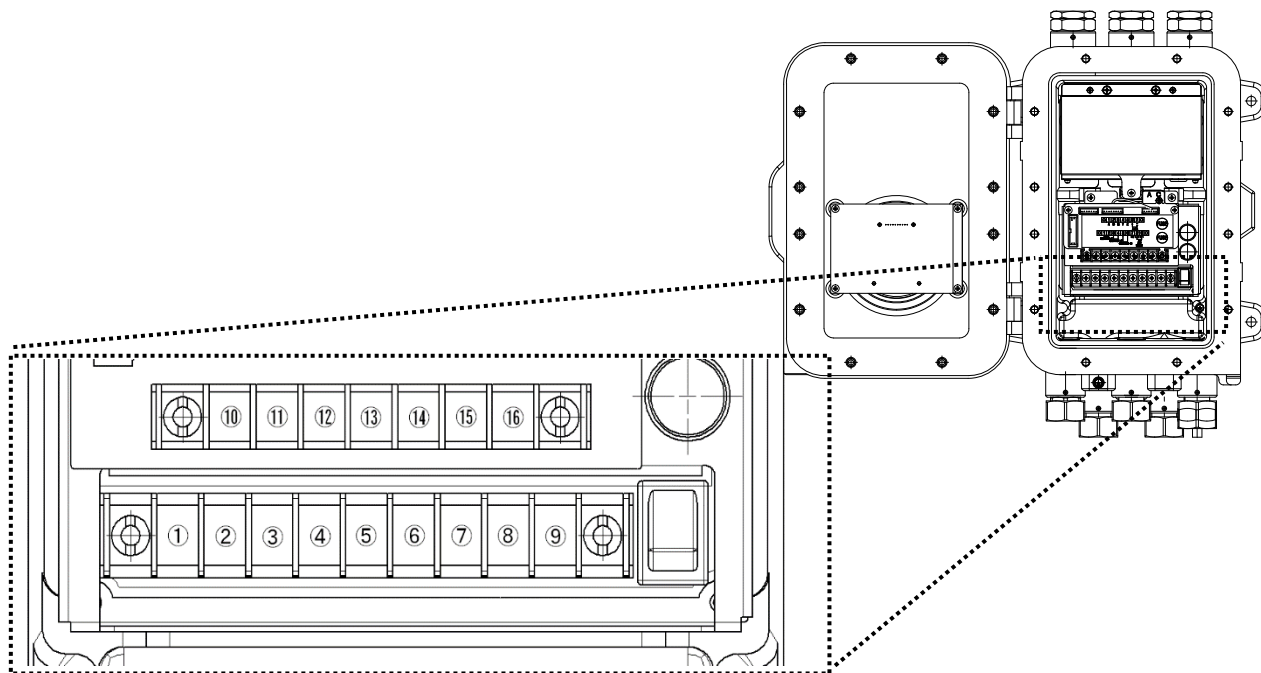
Model	FI-900
Measuring principle	Optical interferometric method
Measuring gas	Refer to attached
Measuring range	Refer to attached
Alarm setpoint	Depending on the measuring gas.
Measurement accuracy	F. S. $\pm 3\%$ (Under identical conditions, refer to the separate "Target Gas Specifications" .)
Response time	T90 within 30 s (Refer to the separate "Target Gas Specifications" .)
Measurement method	Gas introduction at prescribed flow rate from external sampling system
Prescribed flow rate	Measuring gas flow rate : 300mL/min Reference gas flow rate : 10mL/min
Display function	Full-dot LCD (with backlight) concentration readout/maintenance indications, LED lamp status indications
External output	4-20 mA DC (insulated, current throw type), maximum permissible load resistance 300 Ω
Communications output	RS-485 Modbus output function (option)
Maintenance output	IrDA communication
First alarm contacts	No-voltage contact; contact capacity 1 A, 30 V DC (resistance load)
Second alarm contacts	No-voltage contact; contact capacity 1 A, 30 V DC (resistance load)
Fault alarm contacts	No-voltage contact; contact capacity 1 A, 30 V DC (resistance load)
Self-diagnostic function	Reduced light intensity, reduced contrast, air pressure abnormality, temperature abnormality, reduced flow rate, etc.
Power source	100 V to 240 V AC $\pm 10\%$, 50/60 Hz / 24 V DC $\pm 10\%$ * DC power supply only for ATEX/IECEX spec.
Power consumption	Max. 20 VA (100 V to 240 V AC $\pm 10\%$, 50/60 Hz) / Max. 6 W (24 V DC $\pm 10\%$) * DC power supply only for ATEX/IECEX spec.
Recommended cables	Output cable: CVVS or similar shielded cable (1.25 mm ² or 2 mm ²)/2-core Communication cable: KPEVS or similar shielded twisted-pair cable (0.75 mm ²)/2 pairs Contact cable: CVVS or similar shielded cable (1.25 mm ² or 6 mm ²)/2- to 6-core AC Power cable: CVV or similar cable (1.25 mm ² or 2 mm ²)/2- or 3-core DC Power cable: CVVS or similar cable (1.25 mm ² or 2 mm ²)/2- or 3-core
Warm-up time	Initial: Approx. 5 seconds No warm-up time (Refer to the separate "Target Gas Specifications" .)
Protection class	Equivalent to IP66/67
Operating temperature range	Japan Ex spe. : -20 °C to +57 °C (no sudden changes) ATEX/IECEX spec. : -20 °C to +60 °C (no sudden changes)
Operating humidity range	Not exceeding 95 %RH (no condensation/liquefaction of gas inside product)
Operating pressure range	Atmospheric pressure (with no surging)
Target gas temperature	Equal to ambient temperature at GAS IN on main unit (no condensation/liquefaction of gas inside product)
External dimensions	Approx. 286 (W) x 453 (H) x 150 (D) mm (excluding projections)
Weight	Approx. 23 kg
Explosion-proof construction	Flame-proof enclosures
Explosion-proof class	Japan Ex: Ex d II B+H2 T4 ATEX : II 2 G Ex db IIB+H2 T4 Gb IECEX : Ex d IIB+H2 T4 Gb

<p>Self-diagnostic function</p>	<p>Status monitoring in four categories</p> <ul style="list-style-type: none"> • Abnormality (FAILURE) • Function checking (FUNCTION CHECK) • Maintenance request (MAINTENANCE REQUIRED) • Outside specification range (OUT OF SPECIFICATION)
<p>Other functions</p>	<ul style="list-style-type: none"> • Ambient temperature/atmospheric pressure calibration function (depending on measuring gas) • Flow rate display function (gas side, reference side) • Automatic light level adjustment function • Zero suppress function (default setting OFF, can be switched ON)

Outline Drawings



Terminal Drawings



①	Alarm relay contact 1	FIRST ALARM CONTACT	Operates in conjunction with the status of alarm relay contact 1. (with standard settings) Non-voltage contact, contact capacity: 1 A 30 V DC (resistive load)
②			
③	Alarm relay contact 2	SECOND ALARM CONTACT	Operates in conjunction with the status of alarm relay contact 2. (with standard settings) Non-voltage contact, contact capacity: 1 A 30 V DC (resistive load)
④			
⑤	Malfunction alarm contact	FAULT ALARM CONTACT	Operates when a failure occurs. (with standard settings) Non-voltage contact, contact capacity: 1 A 30 V DC (resistive load)
⑥			
⑦	Power supply terminal	FG	Functional grounding (EARTH)
⑧		L / +	24 V DC $\pm 10\%$, Max. 6 W or
⑨		N / -	100 - 240 V AC $\pm 10\%$, 50/60 Hz, Max. 20 VA *The ATEX/IECEX specifications apply to DC power source only
⑩	RS-485 Communication terminal	A	Communication input/output terminal via RS-485 (MODBUS)
⑪		B	
⑫		G	
⑬		Y	
⑭		Z	
⑮	4-20mA Output signal	(+)	4-20 mA DC (insulated, current throw type), resistive load Max. 300 Ω
⑯		(-)	Minimum resolution 0.01 mA or less