<u>Gas Monitor</u> 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	acy F.S. ± 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)LED lampGreen: lights when powered onRed:lights with alarm relay contact output 1Red:lights with alarm relay contact output 2Yellow:lights with malfunction relay contact output			
External output	4-20 mA DC (insulated, current throw type), permitted resistive load 300 Ω or less, minimum resolution 0.01 mA or less			
Communications output	RS-485 (MODBUS) communication function			
Maintenance output	IrDA communication			
Alarm relay contact 1	Non-voltage contact, contact capacity 1 A 30 V DC (resistive load)			
Alarm relay contact 2	Non-voltage contact, contact capacity I A 30 V DC (resistive load)			
Malfunction contact	Non-voltage contact, contact capacity I A 30 V DC (resistive load)			
Power supply	<pre>24 V DC±10% / 100 - 240 V AC±10% 50/60HZ *The ATEX/IECEx specifications apply to DC power source only</pre>			
Power consumption	<pre>Max. 6 W (24 V DC±10%) / Max. 20 VA (100 - 240 V AC±10% 50/60 HZ) *The ATEX/IECEx specifications apply to DC power source only </pre>			
Recommended cables	For output: CVVS or other shielded cable (1.25 mm ² or 2 mm ²) / 2-core For communication: KPEVS or other twisted pair with shield (0.75 mm ²) / 2-pair For contact: CVVS or other shielded cable (1.25 mm ² or 2 mm ²) / 2 to 6-core For AC power: CVV or other shielded cable (1.25 mm ² or 2 mm ²) / 2 to 3-core For DC power: CVVS or other shielded cable (1.25 mm ² or 2 mm ²) / 2 to 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	Japanese explosion-proof specifications: -20 °C to +57 °C (no sudden changes) ATEX/IECEx specifications: -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)			
Measuring gas	Same as ambient temperature at GAS IN point			
temperature	(no condensation/use of condensible gases within unit)			
Outer dimensions	Approx. 286 (W) x 453 (H) x 150 (D) mm (projection portion excluded)			
Weight	Approx. 23 kg			
structure	Flame-proof enclosures			
Explosion-proof class	Japanese explosion-proof specifications:Ex d II B+H2 T4ATEX specifications:II 2G Ex db IIB+H2 T4 GbIECEx specifications:Ex d IIB+H2 T4 Gb			
Explosion-proof certification approval No.	Japanese explosion-proof specifications:TC21460ATEX specifications:DEKRA12ATEX0187XIECEx specifications:IECExDEK12.0058X			

Self-diagnostic function	 Status monitoring in four categories Abnormality (FAILURE) Function checking (FUNCTION CHECK) Maintenance request (MAINTENANCE REQUIRED) Outside specification range (OUT OF SPECIFICATION) 	
Other functions	 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





<u>Terminal Drawings</u>



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