

GAS DETECTOR WITH SIGNAL CONVERTER

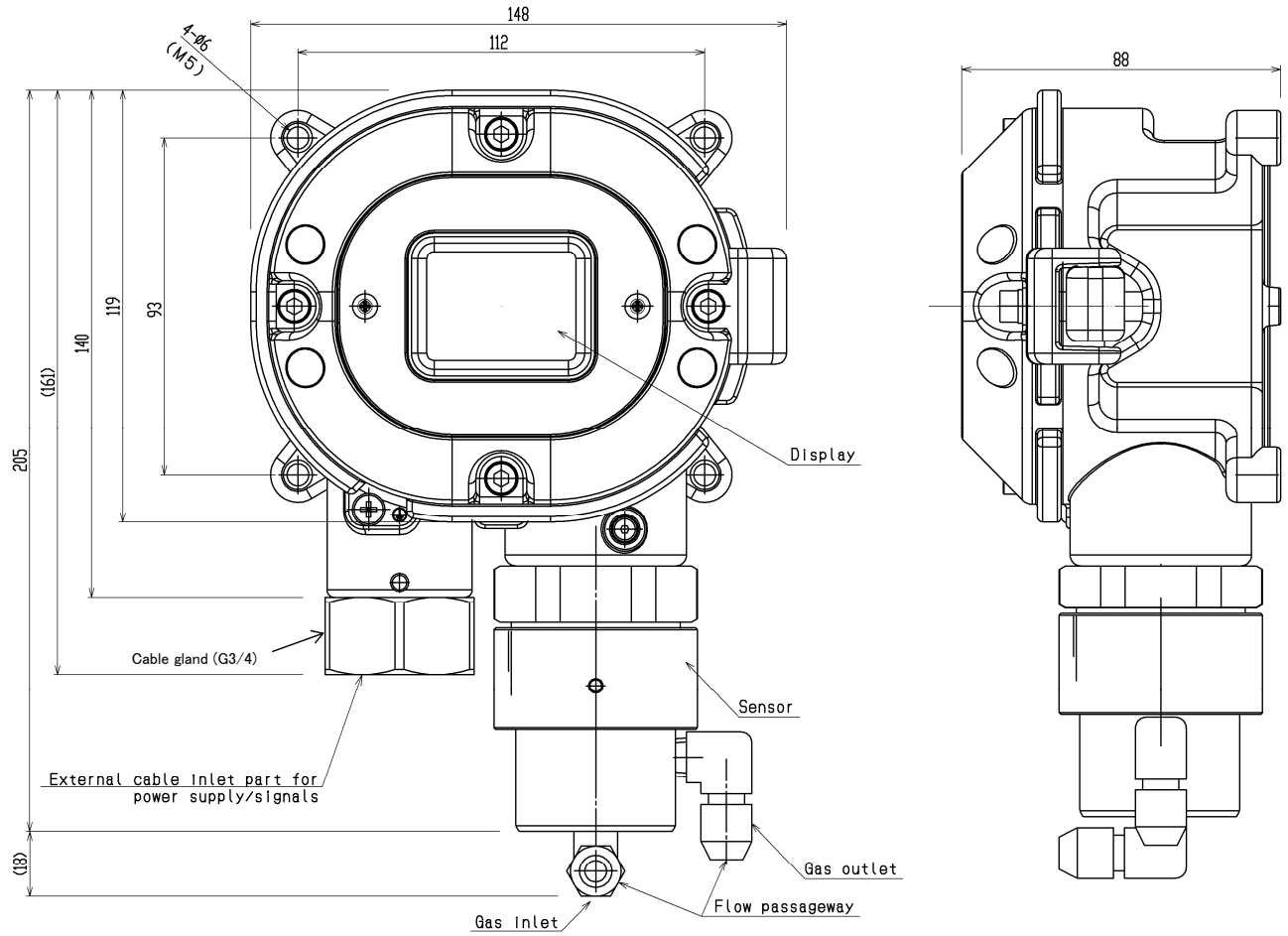
SD-1DOX (ATEX·IECEX/Anoxia alarm) SPECIFICATION

Detection principle	Galvanic cell method
Detectable gas	O ₂
Gas concentration display	LED(4digits・7segments)
Measuring range	0~25vol%
Detection method	Suction method(pour into by external unit)
Suction flow	1.5±0.5L/min
Alarm preset point* ¹	18vol%(L) 【Standard】
Power indication	POWER lamp lighting(green)
Output* ¹	Gas concentration signal Alarm contact(Gas alarm or Trouble alarm or Gas・Trouble common alarm)
Indicate accuracy* ² (under an identical condition)	Within ±0.7vol%
Accuracy of Alarm setpoint* ²	Difference between Alarm setpoint and indicated value of warning alarm are zero.
Response time* ² (under an identical condition)	Within 30sec(T90) (without piping delay time)
Alarm accuracy* ² (under an identical condition)	Within ±1vol% to the alarm setpoint value
Alarm-delay time* ² (under an identical condition)	By anoxia alarm(Alarm setpoint value : 18vol%), Within 5sec(when introducing 10~11vol% gas) (without piping delay time)
Gas alarm type	Single alarm(L)
Gas alarm indication	ALM lamp lighting(red)
Gas alarm action	Auto-recover
Trouble alarm・Self diagnosis	System failure/Sensor failure
Trouble alarm indication	FAULT lamp lighting(yellow)/content display
Trouble alarm action	Auto-recover
Alarm contact* ¹	No-voltage contact 1a・Non-exciting at normal(exciting at alarm) or exciting at normal(non-exciting at alarm)
Contact capacity	AC250V・0.5A/DC30V・0.5A(resistive load)
Transmission scheme	Three-wire analog transmission (in common with power supply<power supply, signal, common>)
Specification of transmission	DC4~20mA (linear・load resistance less than 300Ω・resolution ability 200division)
Transmission cable	CVVS worth of shield cable(1.25mm ² or 2.0mm ²)・3-core (by not using alarm contact) CVVS worth of shield cable(1.25mm ² or 2.0mm ²)・5-core (by using alarm contact)
Transmission distance	Less than 1.25km
Power supply	DC24V±10%
Power consumption	MAX. 1.1W
Cabling port* ¹	Pressure proof packing gland<G3/4> (Compatible cables φ9.6~10.5mm in outer diameter and rubber seals φ11mm in inner diameter<mounted>) (Compatible cables φ11.5~12.5mm in outer diameter and rubber seals φ13mm in inner diameter<accessory> or Adapter A<NPT1/2> , Adapter B<NPT3/4>
Piping port	Rc1/8(with PP elbow union for 0.Dφ6-1t・PTFE pipe)
Initial clear	Approx. 25sec
Operating temperature	-10~+40°C(non-rapidly-vary)
Operating humidity	Less than 95%RH(non-condensing)
Structure	Wall mounting type
Explosion-proof structure	Flame proof structure
Explosion-proof grade	II 2GExd II CT6Gb (DEKRA/ATEX) (IECEX)
Explosion-proof approval No.	DEKRA13ATEX0035X (ATEX) /IECEXDEK13.0024X (IECEX)
Outer dimension	Approx. 148 (W) × 205 (H) × 88 (D)mm(projection excluding)
Weight	Approx. 2.9kg
Color	Munsell 7.5BG5/2

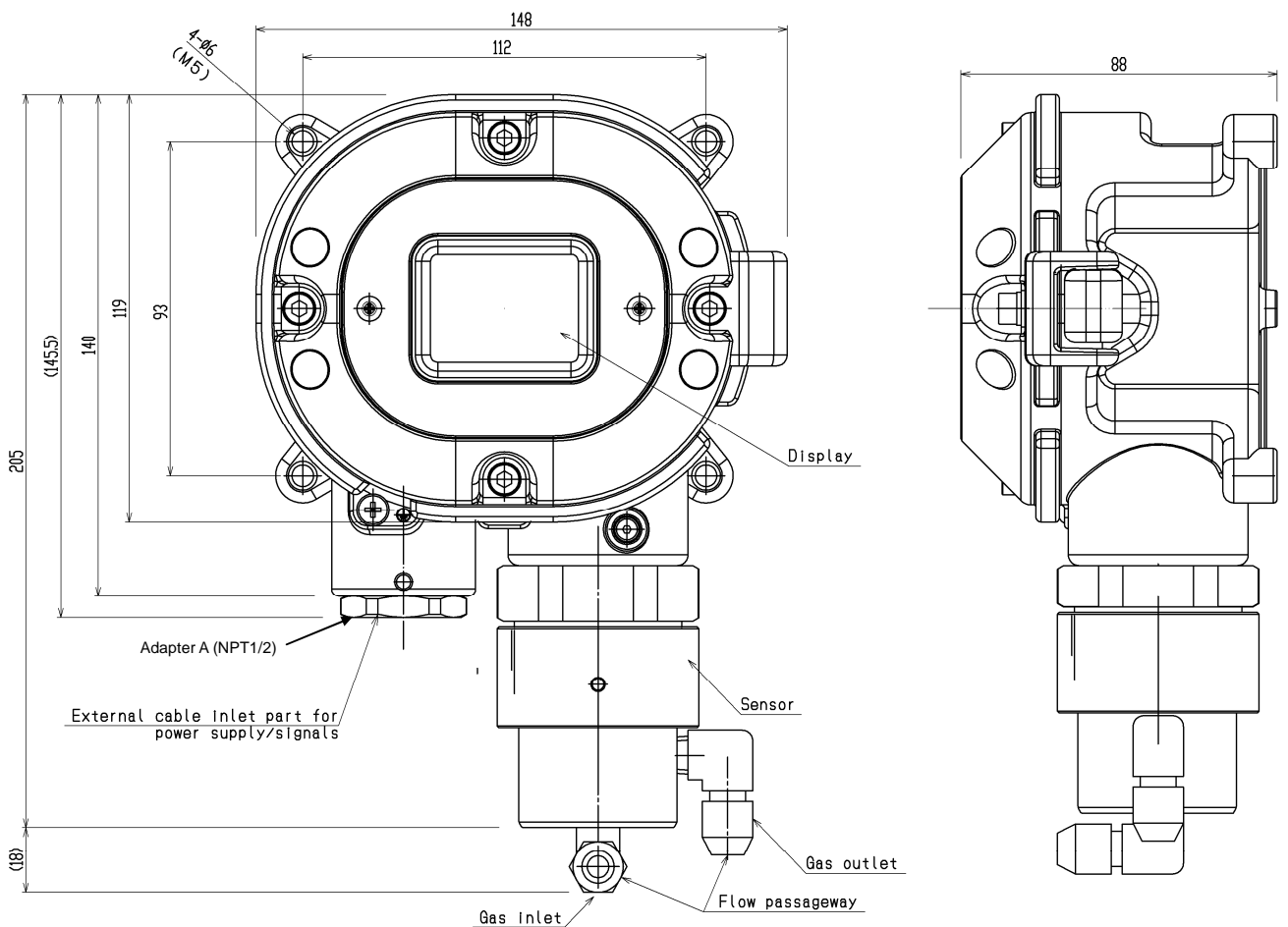
*1 Please specify your request when ordering.

*2 In conformity to JIS T8201 2010(Oxygen deficiency indicator).

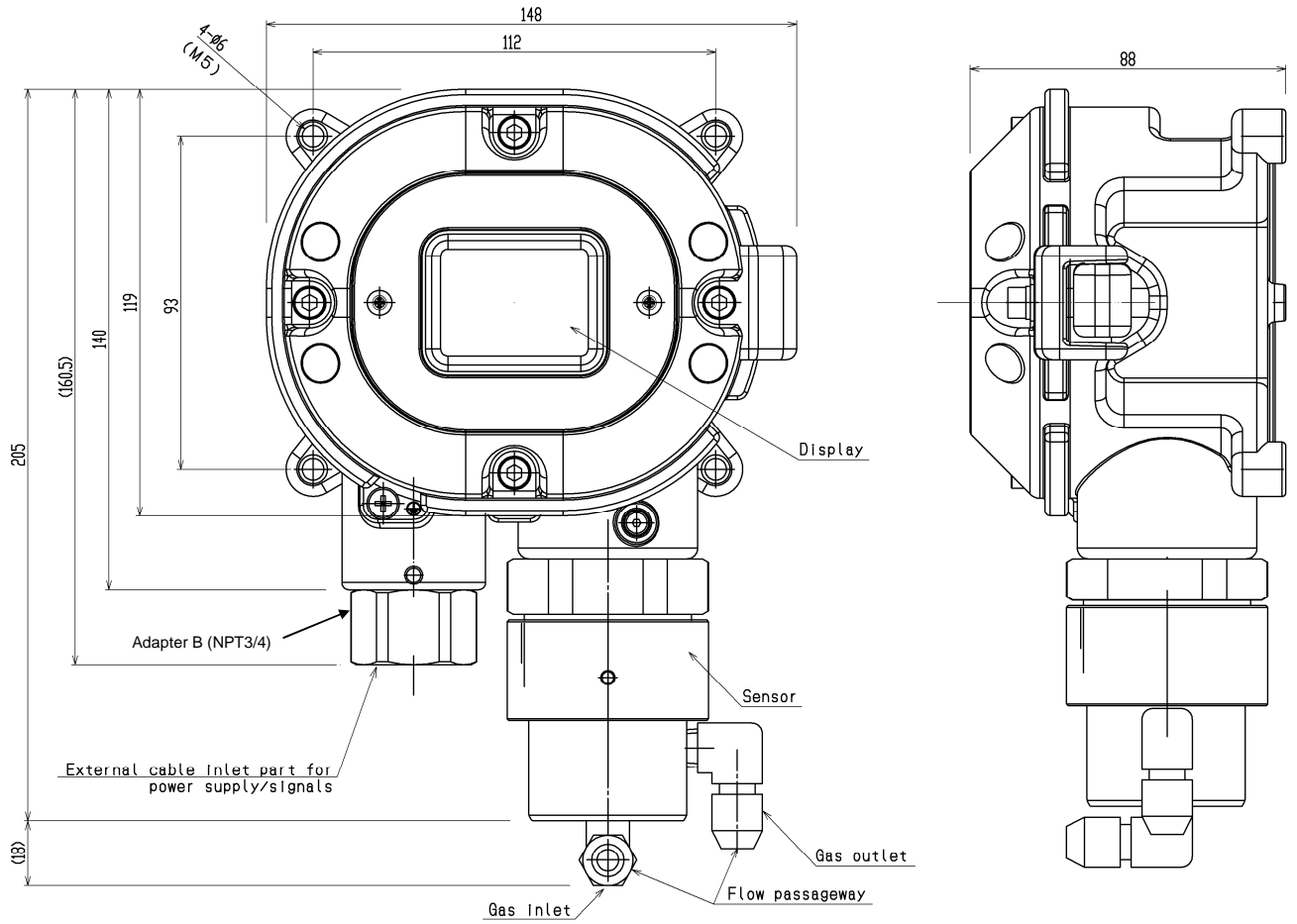
Outline Drawings
【Cable gland<G3/4>】



【Adapter A<NPT1/2>】



【Adapter B<NPT3/4>】



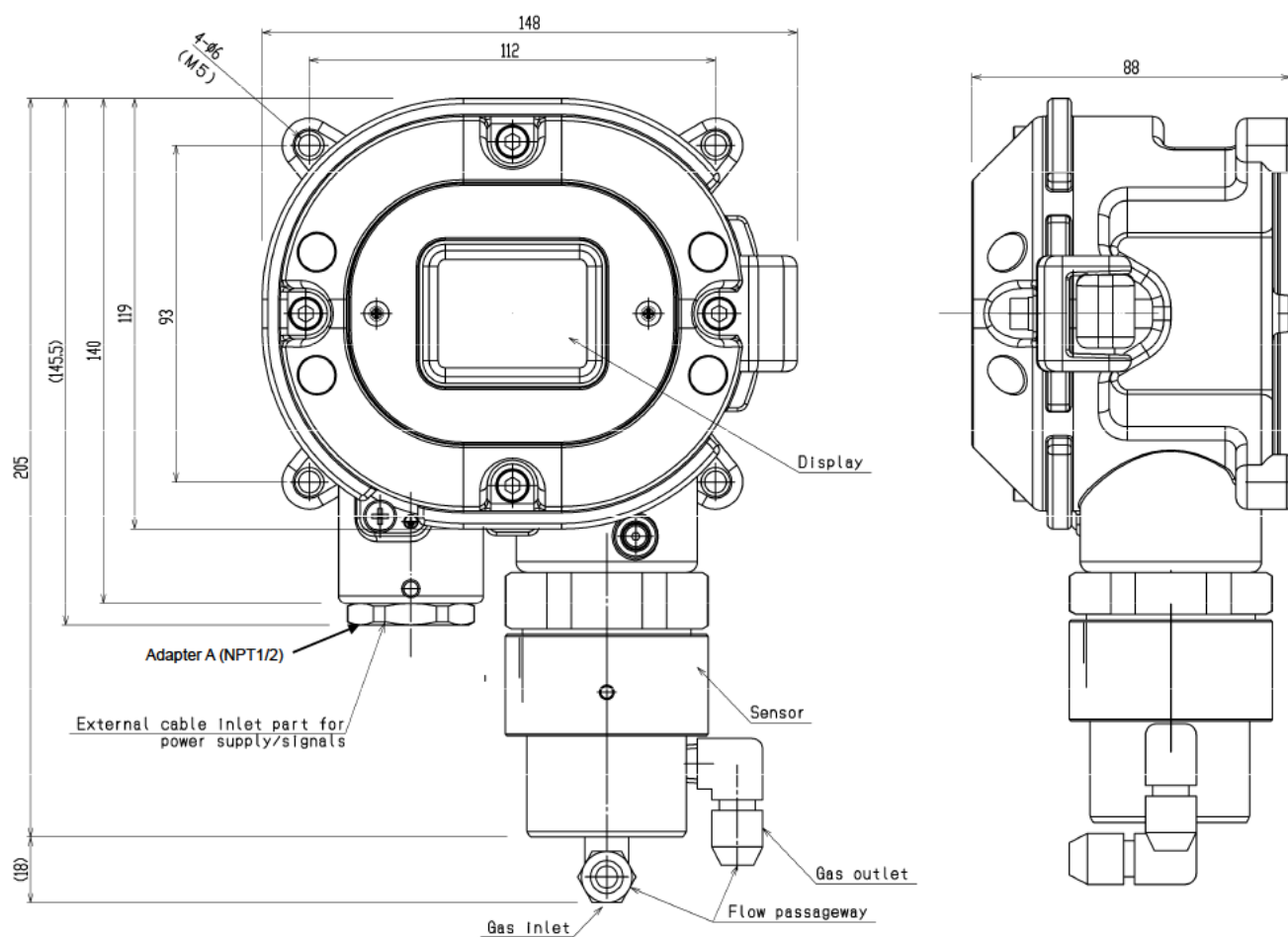
Terminal Drawings

DC24V	DC+	1
	—(common)	2
4-20mA	Sig+	3
	Alarm contact	4
	Alarm contact	5

GAS DETECTOR WITH SIGNAL CONVERTER SD-1DOX (ATEX · IECEx/Leak alarm) SPECIFICATION

Model	SD-1DOX
Detection principle	Galvanic cell method
Detectable gas	O ₂
Gas concentration display	LED(4digits · 7segments)
Measuring range	0~50vol%
Detection method	Suction method(pour into by external unit)
Suction flow	1.5±0.5L/min
Alarm preset point*1	25vol%(H) 【Standard】
Power indication	POWER lamp lighting(green)
Output*1	Gas concentration signal Alarm contact(Gas alarm or Trouble alarm or Gas · Trouble common alarm)
Alarm accuracy (under an identical condition)	Within ±5vol% to leak alarm(Alarm setpoint value : 25vol%)
Alarm-delay time (under an identical condition)	By leak alarm(Alarm setpoint value : 25vol%), Within 30sec after providing the gas 1.6 times(without piping delay time)
Gas alarm type	Single alarm(H)
Gas alarm indication	ALM lamp lighting(red)
Gas alarm action	Auto-recover
Trouble alarm · Self diagnosis	System failure/Sensor failure
Trouble alarm indication	FAULT lamp lighting(yellow)/content display
Trouble alarm action	Auto-recover
Alarm contact*1	No-voltage contact 1a · Non-exciting at normal(exciting at alarm) or exciting at normal(non-exciting at alarm)
Contact capacity	AC250V · 0.5A/DC30V · 0.5A(resistive load)
Transmission scheme	Three-wire analog transmission (in common with power supply<power supply, signal, common>)
Specification of transmission	DC4~20mA (linear · load resistance less than 300Ω)
Transmission cable	CVVS worth of shield cable(1.25mm ² or 2.0mm ²) · 3-core (by not using alarm contact) CVVS worth of shield cable(1.25mm ² or 2.0mm ²) · 5-core (by using alarm contact)
Transmission distance	Less than 1.25km
Power supply	DC24V±10%
Power consumption	MAX. 1.1W
Cabling port*1	Pressure proof packing gland<G3/4> (Compatible cables φ9.6~10.5mm in outer diameter and rubber seals φ11mm in inner diameter<mounted>) (Compatible cables φ11.5~12.5mm in outer diameter and rubber seals φ13mm in inner diameter<accessory> or Adapter A<NPT1/2> , Adapter B<NPT3/4>
Piping port	Rc1/8(with PP elbow union for O.Dφ6-1t · PTFE pipe)
Initial clear	Approx. 25sec
Operating temperature	-10~+40°C(non-rapidly-vary)
Operating humidity	Less than 95%RH(non-condensing)
Structure	Wall mounting type
Explosion-proof structure	Flame proof structure
Explosion-proof grade	II 2G Ex db IIC T6 Gb(ATEX) / Ex db IIC T6 Gb(IECEx)
Outer dimension	Approx. 148(W) × 205(H) × 88(D)mm(projection excluding)
Weight	Approx. 2.9kg
Color	Munsell 7.5BG5/2

*1 Please specify your request when ordering.

Outline Drawings**Terminal Drawings**

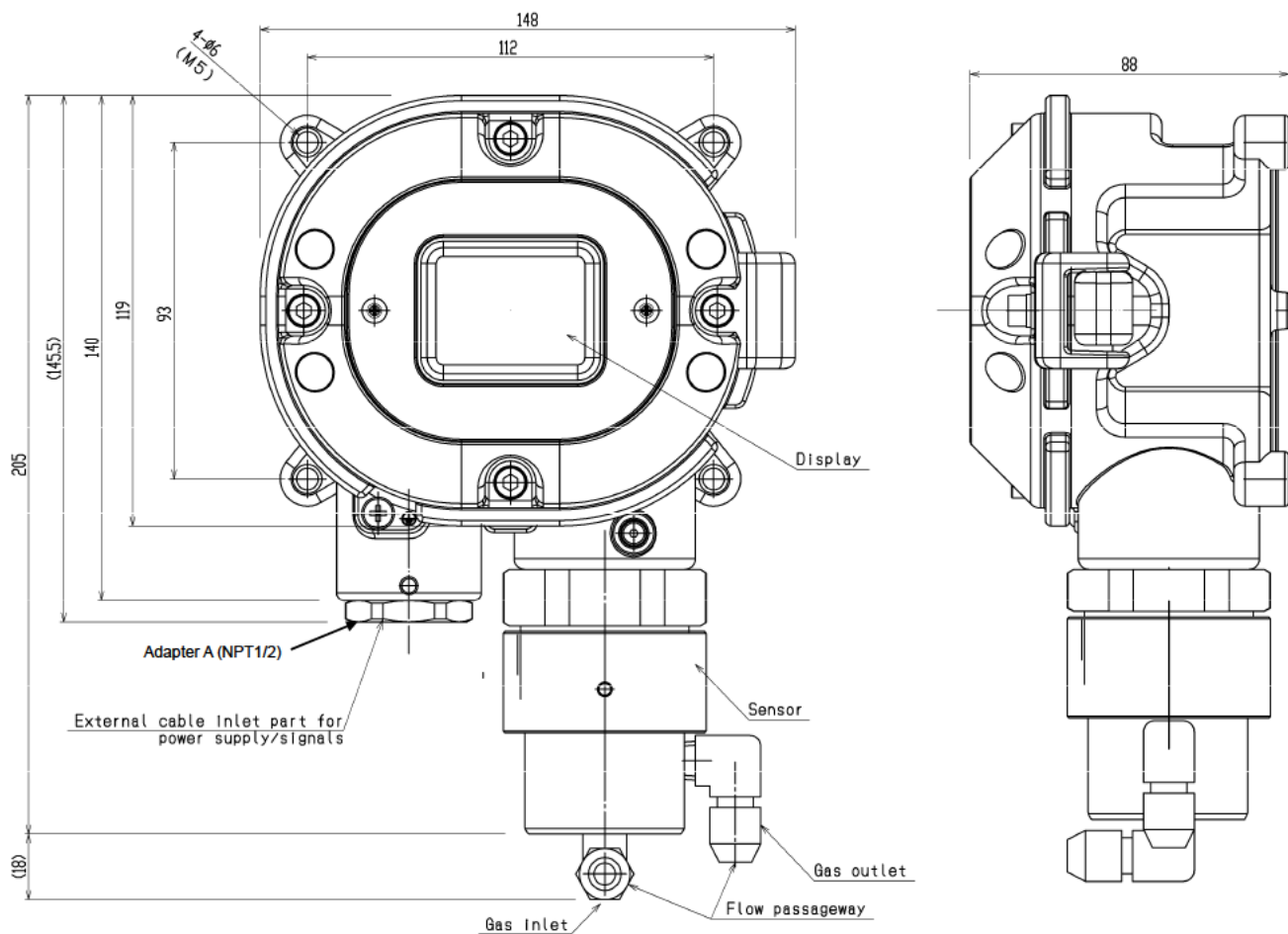
DC24V	DC+	1
	—(common)	2
4-20mA	Sig+	3
	Alarm contact	4
	Alarm contact	5

GAS DETECTOR WITH SIGNAL CONVERTER **SD-1DOX (ATEX·IECEX/Gas monitoring) SPECIFICATION**

Model	SD-1DOX
Detection principle	Galvanic cell method
Detectable gas	O ₂
Gas concentration display	LED(4digits・7segments)
Measuring range	0~5vol%/0~10vol%/0~25vol%/0~50vol%/0~100vol%
Detection method	Suction method(pour into by external unit)
Suction flow	1.5±0.5L/min
Alarm preset point* ¹	Depend on measuring range
Power indication	POWER lamp lighting(green)
Output* ¹	Gas concentration signal Alarm contact(Gas alarm or Trouble alarm or Gas・Trouble common alarm)
Indicate accuracy (under an identical condition)	Within ±0.7vol%(below 25vol% range) Within ±3vol%(above 25vol% range)
Response time (under an identical condition)	Within 30sec(T90) (without piping delay time)
Gas alarm type* ¹	Single alarm(H or L)
Gas alarm indication	ALM lamp lighting(red)
Gas alarm action	Auto-recover
Trouble alarm・Self diagnosis	System failure/Sensor failure
Trouble alarm indication	FAULT lamp lighting(yellow)/content display
Trouble alarm action	Auto-recover
Alarm contact* ¹	No-voltage contact 1a・Non-exciting at normal(exciting at alarm) or exciting at normal(non-exciting at alarm)
Contact capacity	AC250V・0.5A/DC30V・0.5A(resistive load)
Transmission scheme	Three-wire analog transmission (in common with power supply<power supply, signal, common>)
Specification of transmission	DC4~20mA(linear・load resistance less than 300Ω)
Transmission cable	CVVS worth of shield cable(1.25mm ² or 2.0mm ²)・3-core (by not using alarm contact) CVVS worth of shield cable(1.25mm ² or 2.0mm ²)・5-core (by using alarm contact)
Transmission distance	Less than 1.25km
Power supply	DC24V±10%
Power consumption	MAX. 1.1W
Cabling port* ¹	Flame proof packing method (Cable gland<G3/4> or Adapter A<NPT1/2> or Adapter B<NPT3/4>)
Piping port	Rc1/8(with PP elbow union for 0. Dφ6-1t・PTFE pipe)
Initial clear	Approx. 25sec
Operating temperature	-10~+40°C(non-rapidly-vary)
Operating humidity	Less than 95%RH(non-condensing)
Structure	Wall mounting type
Explosion-proof structure	Flame proof structure
Explosion-proof grade	II 2G Ex db II C T6 Gb(ATEX) / Ex db II C T6 Gb(IECEX)
Outer dimension	Approx. 148(W)×205(H)×88(D)mm(projection excluding)
Weight	Approx. 2.9kg
Color	Munsell 7.5BG5/2

*¹ Please specify your request when ordering.

Outline Drawings



Terminal Drawings

DC24V	DC+	1
	-(common)	2
4-20mA	Sig+	3
	Alarm contact	4
	Alarm contact	5