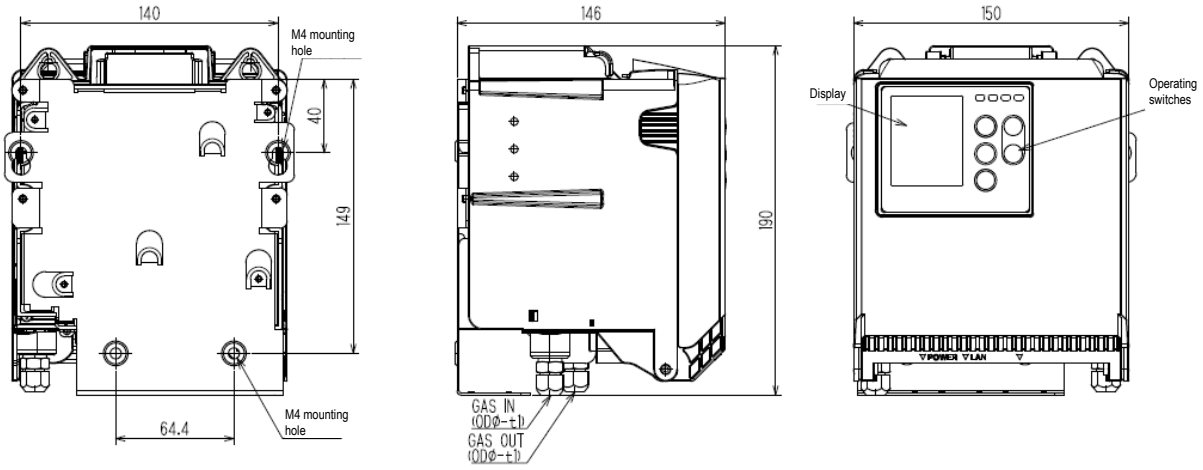
GAS DETECTOR HEAD
GD-84D-EX SPECIFICATION

Model	GD-84D-EX
Detection principle*	Electrochemical type, new ceramic type, semiconductor type, hot-wire semiconductor type
Detectable gas*	Toxic gases, combustible gases, oxygen
Indication	Full-dot display (Gas name display, flow display, mode display, communication status display, concentration display, concentration bar display)
Measuring range*	Refer to individual sensor specifications
Detection method	Pump suction method
Suction flow	Approx. 0.6 L/min
Alarm setpoints*	Refer to individual sensor specifications
Power indication	POWER LED lights up (green)
Indication accuracy*	Refer to individual sensor specifications
Response time*	Refer to individual sensor specifications
Alarm accuracy*	Refer to individual sensor specifications
Alarm delay time*	Refer to individual sensor specifications
Gas alarm type*	Two-stage alarm (L-LL, L-H, or H-HH)
Gas alarm indications	First alarm: ALM1 LED lights up (red) Second alarm: ALM2 LED lights up (red)
Gas alarm pattern*	Auto-reset or self-latching
Gas alarm contact*	No-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Fault alarm/ self-diagnosis	System abnormality, sensor abnormality, flow abnormality, fan disconnection abnormality, temperature increase abnormality, sensor life diagnosis
Fault alarm indications	FAULT LED lights up (yellow)/information displayed.
Fault alarm pattern*	Auto-reset or self-latching
Fault alarm contacts*	Overall fault contacts: no-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Contact capacity	24 V DC/0.5 A (resistance load)
Contact cable	CVV or equivalent cable (1.25 mm^2, maximum 18 core)
Transmission method	Analog transmission: two-wire analog transmission (4 - 20 mA DC, non-insulated, resistance load 300 Ω or less, including cable resistance)
Transmission cable	Analog transmission: CVVS or equivalent shielded cable (1.25 mm^2, maximum eight cores)
Functions	White backlight, alarm delay, suppression, zero follower, sensitivity correction, flow control, calibration history, alarm trend history, event history
Power cable	CVV or equivalent cable (1.25 mm^2), two-core
Power source	24 V DC ± 10 %
Power consumption	When 24 V DC is connected: approx. 8 W (maximum approx. 14 W)
Pipe connection openings	Rc1/4 (OD ϕ6-1 t half union for Teflon pipe <PP> supplied)
Initialization	Approx. 25 seconds
Operating temperature range	-10 - +40 ℃ (no sudden changes)
Operating humidity range	20 - 90 % RH (No condensation; may depend on the sensors installed.)
Construction	Wall mounting type
External dimensions	Approx. 150 (W) × 190 (H) × 146 (D) mm (excluding projections)
Weight	Approx. 1.9 kg
Exterior color	Main unit: Black Front door: White

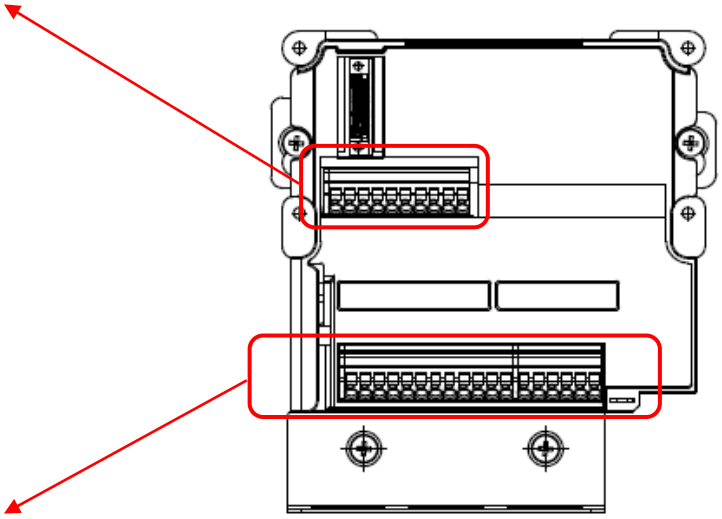
* Please specify your request when ordering.

Outline Drawings



Terminal Drawings

1	2	3	4	5	6	7	8	9	10
+	−	+	−	+	−	+	−	+	−
DC24V		A1 4-20mA		A2 4-20mA		B1 4-20mA		B2 4-20mA	



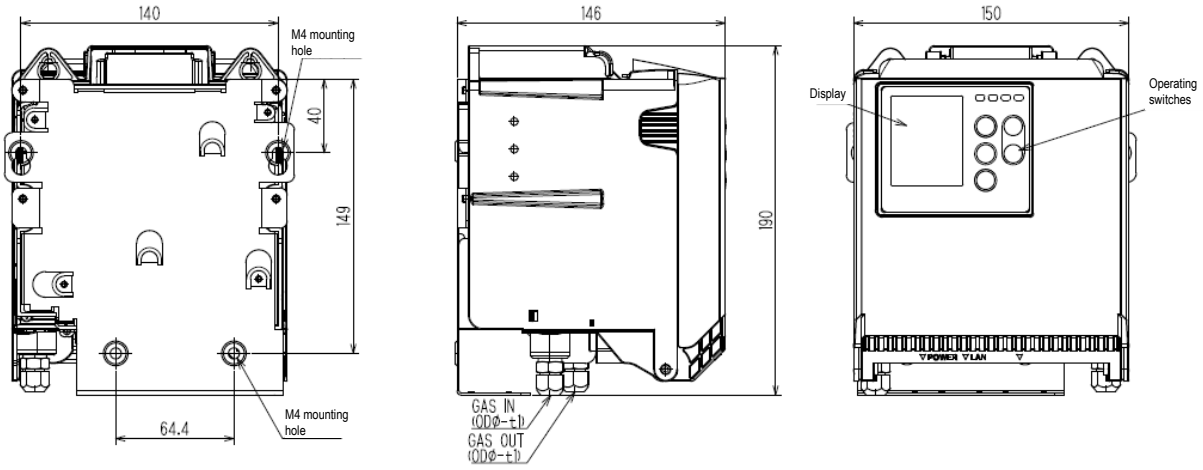
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A1 ALM1		A1 ALM2		A2 ALM1		A2 ALM2		B1 ALM1		B1 ALM2		B2 ALM1		B2 ALM2		FAULT	

GAS DETECTOR HEAD
GD-84D-EX-EC SPECIFICATION

Model	GD-84D-EX-EC
Detection principle	Electrochemical type
Detectable gas*	Toxic gases, oxygen
Indication	Full-dot display (Gas name display, flow display, mode display, communication status display, concentration display, concentration bar display)
Measuring range*	Refer to individual sensor specifications
Detection method	Pump suction method
Suction flow	Approx. 0.6 L/min
Alarm setpoints*	Refer to individual sensor specifications
Power indication	POWER LED lights up (green)
Indication accuracy*	Refer to individual sensor specifications
Response time*	Refer to individual sensor specifications
Alarm accuracy*	Refer to individual sensor specifications
Alarm delay time*	Refer to individual sensor specifications
Gas alarm type*	Two-stage alarm (L-LL, L-H, or H-HH)
Gas alarm indications	First alarm: ALM1 LED lights up (red). Second alarm: ALM2 LED lights up (red).
Gas alarm pattern*	Auto-reset or self-latching
Gas alarm contact*	No-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Fault alarm/ self-diagnosis	System abnormality, sensor abnormality, flow abnormality, temperature increase abnormality, sensor life diagnosis
Fault alarm indications	FAULT LED lights up (yellow)/information displayed.
Fault alarm pattern*	Auto-reset or self-latching
Fault alarm contacts*	Overall fault contacts: no-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Contact capacity	24 V DC/0.5 A (resistance load)
Contact cable	CVV or equivalent cable (1.25 mm^2, maximum 18 core)
Transmission method	Analog transmission: two-wire analog transmission (4 - 20 mA DC, non-insulated, resistance load 300 Ω or less, including cable resistance)
Transmission cable	Analog transmission: CVVS or equivalent shielded cable (1.25 mm^2, maximum eight cores)
Functions	White backlight, alarm delay, suppression, zero follower, sensitivity correction, flow control, calibration history, alarm trend history, event history
Power cable	CVV or equivalent cable (1.25 mm^2), two-core
Power source	24 V DC ± 10 %
Power consumption	When 24 V DC is connected: approx. 2.5 W(maximum approx.7 W)
Pipe connection openings	Rc1/4 (OD ϕ6-1 t half union for Teflon pipe <PP> supplied)
Initialization	Approx. 25 seconds
Operating temperature range	-10 - +40 ℃ (no sudden changes)
Operating humidity range	20 - 90 % RH (No condensation; may depend on the sensors installed.)
Construction	Wall mounting type
External dimensions	Approx. 150 (W) × 190 (H) × 146 (D) mm (excluding projections)
Weight	Approx. 1.9 kg
Exterior color	Main unit: Black Front door: White

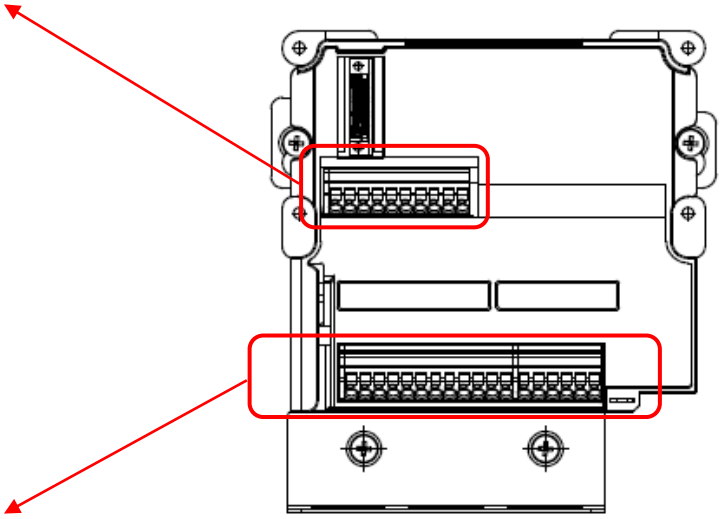
* Please specify your request when ordering.

Outline Drawings



Terminal Drawings

1	2	3	4	5	6	7	8	9	10
+	−	+	−	+	−	+	−	+	−
DC24V		A1 4-20mA		A2 4-20mA		B1 4-20mA		B2 4-20mA	



11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A1 ALM1		A1 ALM2		A2 ALM1		A2 ALM2		B1 ALM1		B1 ALM2		B2 ALM1		B2 ALM2		FAULT	

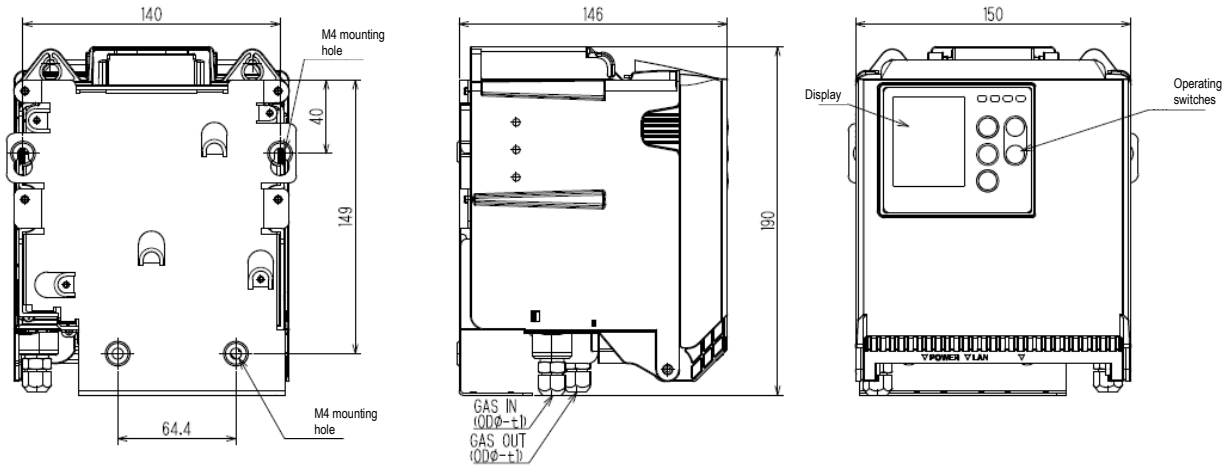
GAS DETECTOR HEAD
GD-84D-EX-EA SPECIFICATION

Model	GD-84D-EX-EA
Detection principle*	Electrochemical type, new ceramic type, semiconductor type, hot-wire semiconductor type
Detectable gas*	Toxic gases, combustible gases, oxygen
Indication	Full-dot display (Gas name display, flow display, mode display, communication status display, concentration display, concentration bar display)
Measuring range*	Refer to individual sensor specifications
Detection method	Pump suction method
Suction flow	Approx. 0.6 L/min
Alarm setpoints*	Refer to individual sensor specifications
Power indication	POWER LED lights up (green)
Indication accuracy*	Refer to individual sensor specifications
Response time*	Refer to individual sensor specifications
Alarm accuracy*	Refer to individual sensor specifications
Alarm delay time*	Refer to individual sensor specifications
Gas alarm type*	Two-stage alarm (L-LL, L-H, or H-HH)
Gas alarm indications	First alarm: ALM1 LED lights up (red). Second alarm: ALM2 LED lights up (red).
Gas alarm pattern*	Auto-reset or self-latching
Gas alarm contact*	No-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Fault alarm/ self-diagnosis	System abnormality, sensor abnormality, flow abnormality, communication abnormality, fan disconnection abnormality, temperature increase abnormality, sensor life diagnosis
Fault alarm indications	FAULT LED lights up (yellow)/information displayed.
Fault alarm pattern*	Auto-reset or self-latching
Fault alarm contacts*	Overall fault contacts: no-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Contact capacity	24 V DC/0.5 A (resistance load)
Contact cable	CVV or equivalent cable (1.25 mm^2, maximum 18 core)
Transmission method	Digital transmission: Ethernet (10BASE-T/100BASE-TX) Analog transmission: two-wire analog transmission (4 - 20 mA DC, non-insulated, resistance load 300 Ω or less, including cable resistance)
Transmission cable	Digital transmission: CAT5e or better Ethernet cable Analog transmission: CVVS or equivalent shielded cable (1.25 mm^2, maximum eight cores)
Functions	White backlight, alarm delay, suppression, zero follower, sensitivity correction, flow control, calibration history, alarm trend history, event history
Power cable	CVV or equivalent cable (1.25 mm^2), two-core (Shared with digital transmission cable when PoE+ connection is used)
Power source	24 V DC ± 10 % or PoE+ connection
Power consumption	When 24 V DC is connected: approx. 9 W (maximum approx. 15 W) When PoE+ is connected: approx. 11 W (maximum approx. 16 W)
Pipe connection openings	Rc1/4 (OD ϕ6-1 t half union for Teflon pipe <PP> supplied)
Initialization	Approx. 25 seconds
Operating temperature range	-10 - +40 ℃ (no sudden changes)
Operating humidity range	20 - 90 % RH (No condensation; may depend on the sensors installed.)
Construction	Wall mounting type
External dimensions	Approx. 150 (W) × 190 (H) × 146 (D) mm (excluding projections)
Weight	Approx. 1.9 kg

Exterior color	Main unit: Black　Front door: White

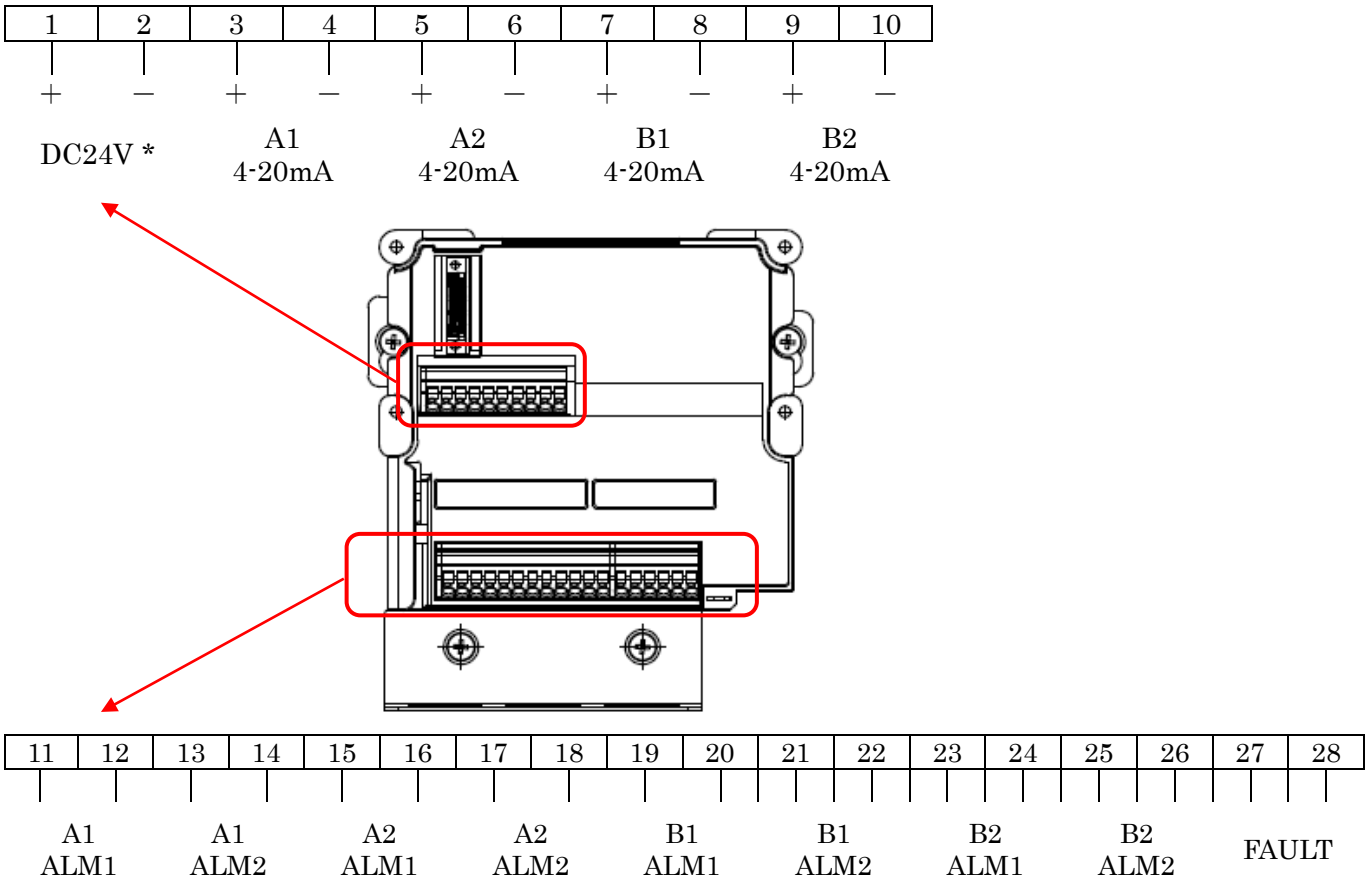
＊ Please specify your request when ordering.

Outline Drawings



＊ RJ-45 connector for Ethernet cable connection is on the bottom of the main unit.

Terminal Drawings



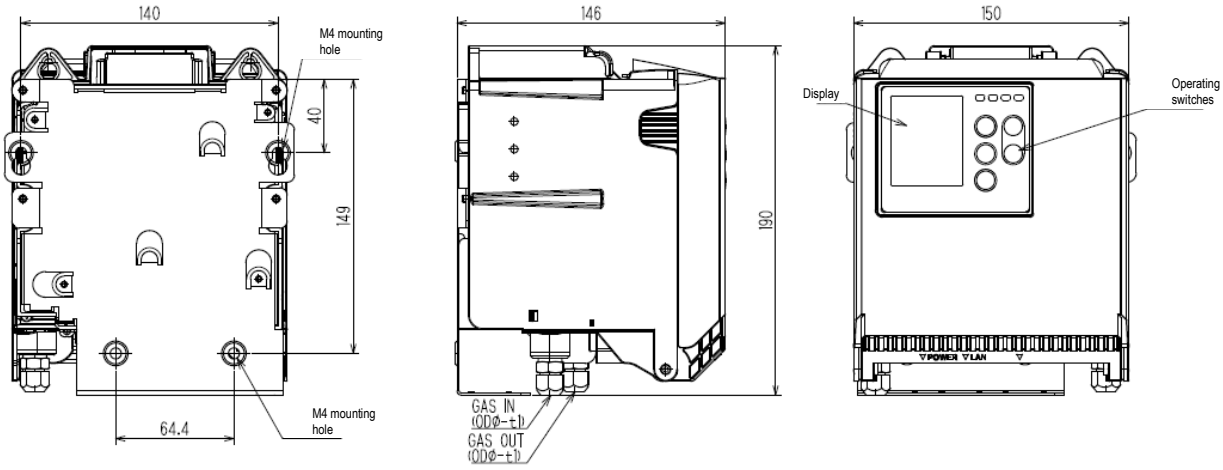
＊ For PoE connection, the terminals 1 and 2 are disabled. (Connection prohibited. Supply from the RJ-45 connector.)

GAS DETECTOR HEAD
GD-84D-EX-EA-EC SPECIFICATION

Model	GD-84D-EX-EA-EC
Detection principle	Electrochemical type
Detectable gas*	Toxic gases, oxygen
Indication	Full-dot display (Gas name display, flow display, mode display, communication status display, concentration display, concentration bar display)
Measuring range*	Refer to individual sensor specifications
Detection method	Pump suction method
Suction flow	Approx. 0.6 L/min
Alarm setpoints*	Refer to individual sensor specifications
Power indication	POWER LED lights up (green)
Indication accuracy*	Refer to individual sensor specifications
Response time*	Refer to individual sensor specifications
Alarm accuracy*	Refer to individual sensor specifications
Alarm delay time*	Refer to individual sensor specifications
Gas alarm type*	Two-stage alarm (L-LL, L-H, or H-HH)
Gas alarm indications	First alarm: ALM1 LED lights up (red). Second alarm: ALM2 LED lights up (red).
Gas alarm pattern*	Auto-reset or self-latching
Gas alarm contact*	No-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Fault alarm/ self-diagnosis	System abnormality, sensor abnormality, flow abnormality, communication abnormality, temperature increase abnormality, sensor life diagnosis
Fault alarm indications	FAULT LED lights up (yellow)/information displayed.
Fault alarm pattern*	Auto-reset or self-latching
Fault alarm contacts*	Overall fault contacts: no-voltage contact 1a or 1b Always de-energized (energized in alarm state) or always energized (de-energized in alarm state)
Contact capacity	24 V DC/0.5 A (resistance load)
Contact cable	CVV or equivalent cable (1.25 mm^2, maximum 18 core)
Transmission method	Digital transmission: Ethernet (10BASE-T/100BASE-TX) Analog transmission: two-wire analog transmission (4 - 20 mA DC, non-insulated, resistance load 300 Ω or less, including cable resistance)
Transmission cable	Digital transmission: CAT5e or better Ethernet cable Analog transmission: CVVS or equivalent shielded cable (1.25 mm^2, maximum eight cores)
Functions	White backlight, alarm delay, suppression, zero follower, sensitivity correction, flow control, calibration history, alarm trend history, event history
Power cable	CVV or equivalent cable (1.25 mm^2), two-core (Shared with digital transmission cable when PoE+ connection is used)
Power source	24 V DC ± 10 % or PoE+ connection
Power consumption	When 24 V DC is connected: approx.3 W(maximum approx.8 W) When PoE+ is connected: approx.4.5 W(maximum approx.9.5 W)
Pipe connection openings	Rc1/4 (OD ϕ6-1 t half union for Teflon pipe <PP> supplied)
Initialization	Approx. 25 seconds
Operating temperature range	-10 - +40 ℃ (no sudden changes)
Operating humidity range	20 - 90 % RH (No condensation; may depend on the sensors installed.)
Construction	Wall mounting type
External dimensions	Approx. 150 (W) × 190 (H) × 146 (D) mm (excluding projections)
Weight	Approx. 1.9 kg
Exterior color	Main unit: Black Front door: White

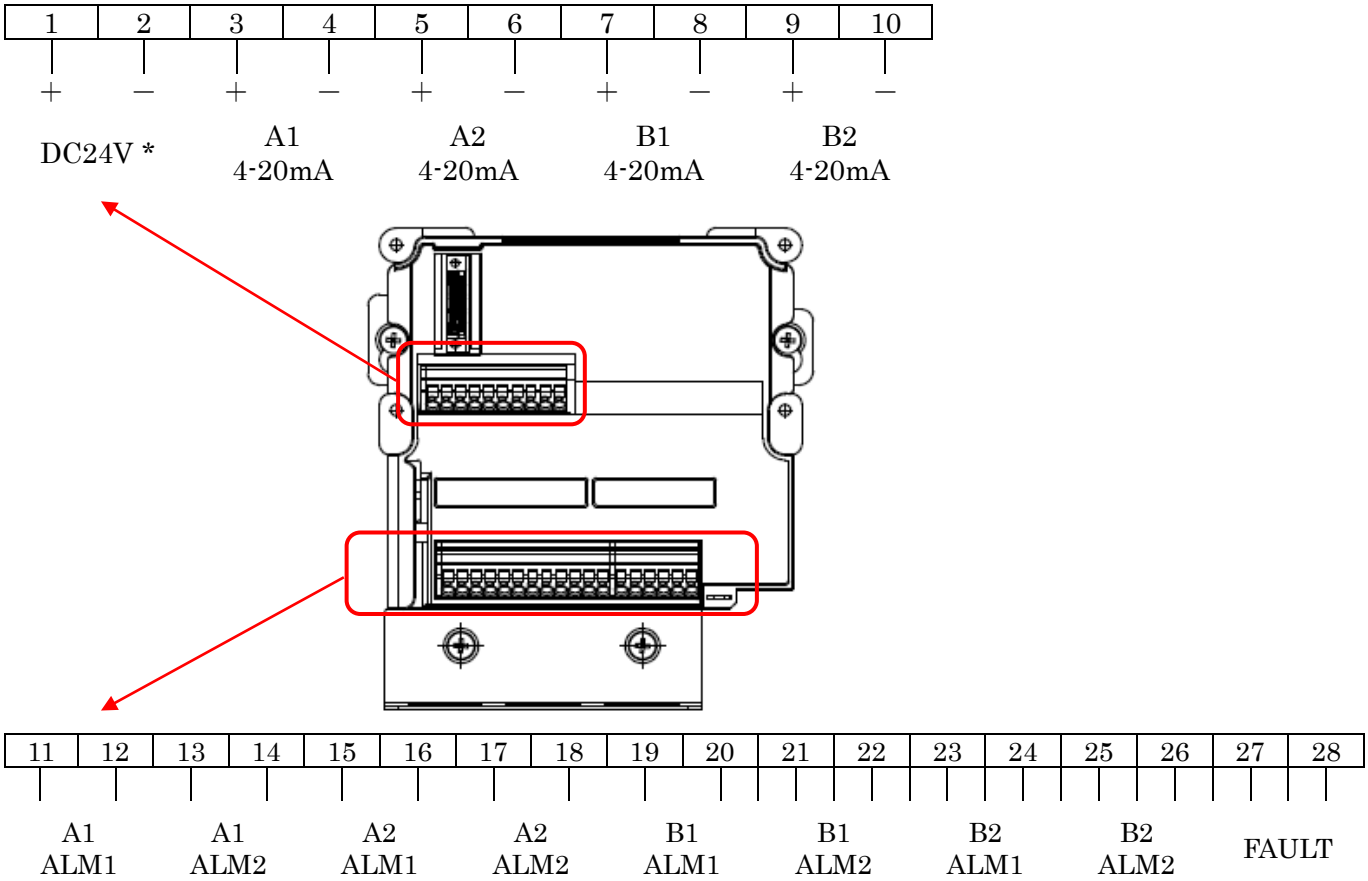
* Please specify your request when ordering.

Outline Drawings



* RJ-45 connector for Ethernet cable connection is on the bottom of the main unit.

Terminal Drawings



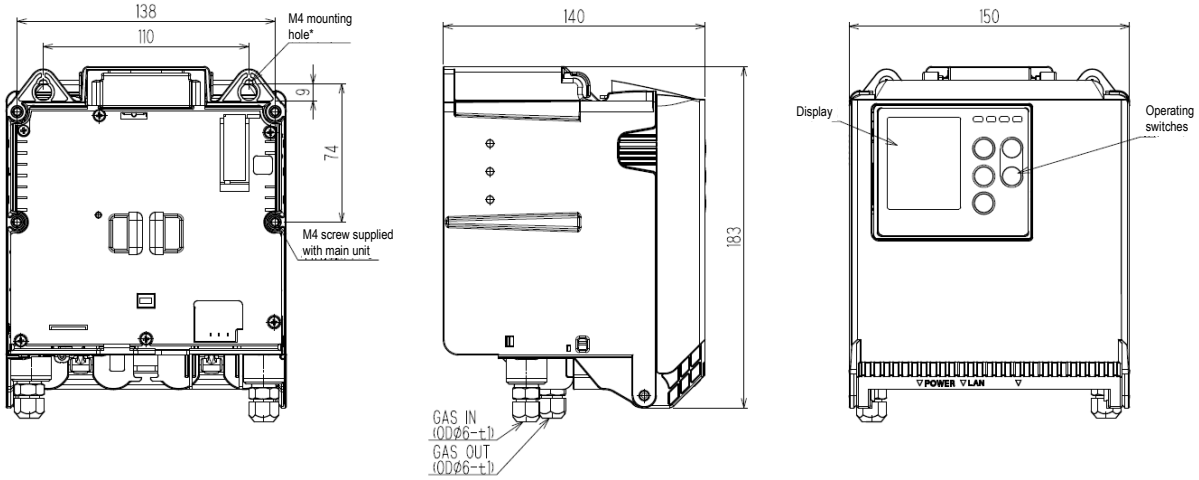
* For PoE connection, the terminals 1 and 2 are disabled. (Connection prohibited. Supply from the RJ-45 connector.)

GAS DETECTOR HEAD
GD-84D-EX-ET SPECIFICATION

Model	GD-84D-EX-ET
Detection principle*	Electrochemical type, new ceramic type, semiconductor type, hot-wire semiconductor type
Detectable gas*	Toxic gases, combustible gases, oxygen
Indication	Full-dot display (Gas name display, flow display, mode display, communication status display, concentration display, concentration bar display)
Measuring range*	Refer to individual sensor specifications
Detection method	Pump suction method
Suction flow	Approx. 0.6 L/min
Alarm setpoints*	Refer to individual sensor specifications
Power indication	POWER LED lights up (green)
Indication accuracy*	Refer to individual sensor specifications
Response time*	Refer to individual sensor specifications
Alarm accuracy*	Refer to individual sensor specifications
Alarm delay time*	Refer to individual sensor specifications
Gas alarm type*	Two-stage alarm (L-LL, L-H, or H-HH)
Gas alarm indications	First alarm: ALM1 LED lights up (red). Second alarm: ALM2 LED lights up (red).
Gas alarm pattern*	Auto-reset or self-latching
Fault alarm/ self-diagnosis	System abnormality, sensor abnormality, flow abnormality, communication abnormality, fan disconnection abnormality, temperature increase abnormality, sensor life diagnosis
Fault alarm indications	FAULT LED lights up (yellow)/information displayed.
Fault alarm pattern*	Auto-reset or self-latching
Transmission method	Digital transmission: Ethernet (10BASE-T/100BASE-TX)
Transmission cable	Digital transmission: CAT5e or better Ethernet cable
Functions	White backlight, alarm delay, suppression, zero follower, sensitivity correction, flow control, calibration history, alarm trend history, event history
Power cable	Shared with digital transmission cable
Power source	PoE+ connection
Power consumption	When PoE+ is connected: approx. 9 W (maximum approx. 11 W)
Pipe connection openings	Rc1/4 (OD ϕ6-1 t half union for Teflon pipe <PP> supplied)
Initialization	Approx. 25 seconds
Operating temperature range	-10 - +40 ℃ (no sudden changes)
Operating humidity range	20 - 90 % RH (No condensation; may depend on the sensors installed.)
Construction	Wall mounting type
External dimensions	Approx. 150 (W) × 183 (H) × 140 (D) mm (excluding projections)
Weight	Approx. 1.4 kg
Exterior color	Main unit: Black　Front door: White

* Please specify your request when ordering.

Outline Drawings



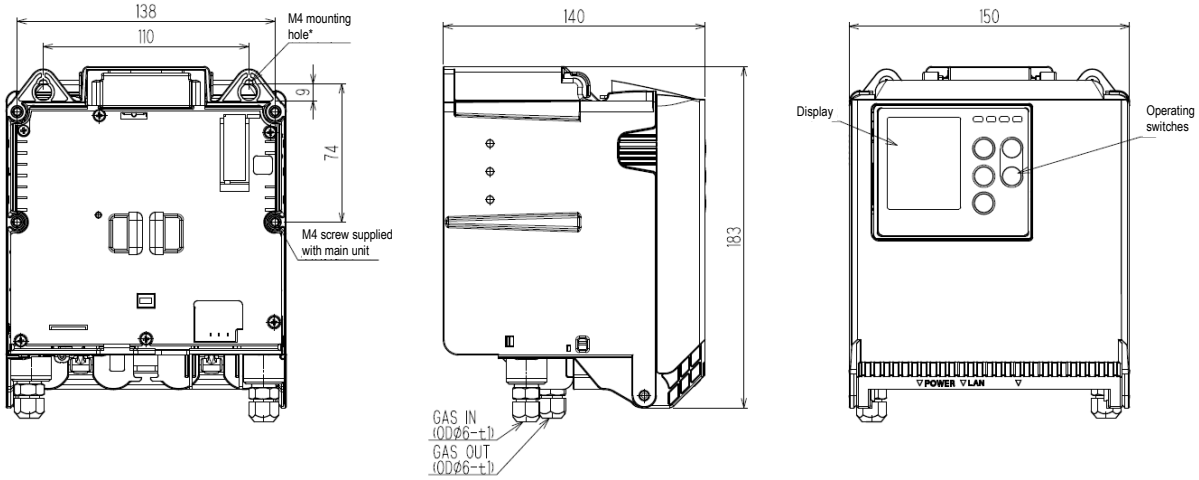
* RJ-45 connector for Ethernet cable connection is on the bottom of the main unit.

GAS DETECTOR HEAD
GD-84D-EX-ET-EC SPECIFICATION

Model	GD-84D-EX-ET-EC
Detection principle*	Electrochemical type
Detectable gas*	Toxic gases, oxygen
Indication	Full-dot display (Gas name display, flow display, mode display, communication status display, concentration display, concentration bar display)
Measuring range*	Refer to individual sensor specifications
Detection method	Pump suction method
Suction flow	Approx. 0.6 L/min
Alarm setpoints*	Refer to individual sensor specifications
Power indication	POWER LED lights up (green)
Indication accuracy*	Refer to individual sensor specifications
Response time*	Refer to individual sensor specifications
Alarm accuracy*	Refer to individual sensor specifications
Alarm delay time*	Refer to individual sensor specifications
Gas alarm type*	Two-stage alarm (L-LL, L-H, or H-HH)
Gas alarm indications	First alarm: ALM1 LED lights up (red). Second alarm: ALM2 LED lights up (red).
Gas alarm pattern*	Auto-reset or self-latching
Fault alarm/ self-diagnosis	System abnormality, sensor abnormality, flow abnormality, communication abnormality, temperature increase abnormality, sensor life diagnosis
Fault alarm indications	FAULT LED lights up (yellow)/information displayed.
Fault alarm pattern*	Auto-reset or self-latching
Transmission method	Digital transmission: Ethernet (10BASE-T/100BASE-TX)
Transmission cable	Digital transmission: CAT×5e or better Ethernet cable
Functions	White backlight, alarm delay, suppression, zero follower, sensitivity correction, flow control, calibration history, alarm trend history, event history
Power cable	Shared with digital transmission cable
Power source	PoE+ connection
Power consumption	When PoE+ is connected: approx. 3.5 W(maximum approx.4.5 W)
Pipe connection openings	Rc1/4 (OD φ6-1 t half union for Teflon pipe <PP> supplied)
Initialization	Approx. 25 seconds
Operating temperature range	-10 - +40 ℃ (no sudden changes)
Operating humidity range	20 - 90 % RH (No condensation; may depend on the sensors installed.)
Construction	Wall mounting type
External dimensions	Approx. 150 (W) × 183 (H) × 140 (D) mm (excluding projections)
Weight	Approx. 1.4 kg
Exterior color	Main unit: Black　Front door: White

* Please specify your request when ordering.

Outline Drawings



* RJ-45 connector for Ethernet cable connection is on the bottom of the main unit.