



IG-1000

Amplifier Unit, DIN Rail Type



*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model		IG-1000		
Type		DIN rail mount		
Main unit/Expansion unit		Main unit		
Analog output		Yes		
Power consumption (including analog current output)	Normal	2700 mW or less (at 30 V: 90 mA or less)* ¹		
	Power saving function (HALF)	2300 mW (at 30 V: 77 mA or less)* ¹		
	Power saving function (ALL)	2200 mW (at 30 V: 74 mA or less)* ¹		
Digital display method		Dual 7-seg display Upper level: Red, 5 digits Lower level: Green, 5 digits		
Display range		-99.999 to +99.999, -99.99 to +99.99, -99.9 to +99.9, -99 to +99 (selectable)		
Display resolution		1 μm 0.04 Mil , 10 μm 0.39 Mil , 100 μm 3.94 Mil , 1,000 μm 39.37 Mil (selectable)		
Output	Judgement output (selectable between NPN and PNP)	NPN (PNP) open collector x3ch, 30 VDC (Power supply voltage) or less, residual voltage 1 V (2 V) or less, N.O./N.C. selectable Max. 50 mA/ch * ²		
	Response time (judgement output)	1.96 to 4031.72 ms * ³		
Analog output (selectable among ±5V, 1-5 V, 0-5 V, 4-20 mA)	Edge check output (selectable between NPN and PNP)	NPN (PNP) open collector x1ch, 30 VDC (Power supply voltage) or less, residual voltage 1 V (2 V) or less, N.O./N.C. selectable Max. 50 mA, * ² response time 20 ms		
	Voltage output	Output range	±5 V (full scale 10 V)	
		Output resistance	100 Ω	
		Maximum load resistance	—	
		Repetition accuracy	±1 mV	
		Display accuracy	±0.05% of F.S.	
		Temperature characteristics	±0.005% of F.S./°C	
		Update cycle	Same as sensor head sampling cycle	
		Response time	Same as Response time (judgement output)	
		Time constant	10 μs (90 % response)* ⁴	
		Current output	Output range	4-20 mA (full scale 16 mA)
	Output resistance		—	
	Maximum load resistance		350 Ω	

		Repetition accuracy	±1.5 μA
		Display accuracy	±0.25% of F.S.
		Temperature characteristics	±0.01% of F.S./°C
		Update cycle	Same as sensor head sampling cycle
		Response time	Same as Response time (judgement output)
		Time constant	30 μs (90 % response)*4
Input	Gain input	Input time: 20 ms or more, Response delay time: 120 ms or less (Nonvolatile memory (EEPROM) 1.5 s or less)	
	Reset input	Input time: 20 ms or more, Response delay time: 20 ms or less	
	Timing input	Input time: 2 ms or more, Response delay time: 2 ms or less	
	Zero shift input	Input time: 20 ms or more, Response delay time: 20 ms or less	
	Bank A input/Bank B input	Input time: 20 ms or more, Response delay time: 20 ms or less *3	
	Laser emission stop input	Input time: 2 ms or more, Response delay time: 2 ms or less	
Rating	Power voltage	10 to 30 VDC, including Ripple (P-P) 10 %, Class 2 or LPS	
Environmental resistance	Pollution degree	2	
	Ambient temperature	-10 to +50 °C 14 to 122 °F (No freezing)	
	Relative humidity	35 to 85 % RH (No condensation)	
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z axis	
Material	Main unit case/Front sheet: Polycarbonate, Key top: Polyacetal, Cable: PVC		
Accessories	Main body × 1, Instruction manual × 1		
Weight	Approx. 150 g (including supplied items)		

*1 The power consumption with slave units installed is the total of each amplifier unit's power consumption.

*2 When expansion units are added: Max. 20 mA/ch

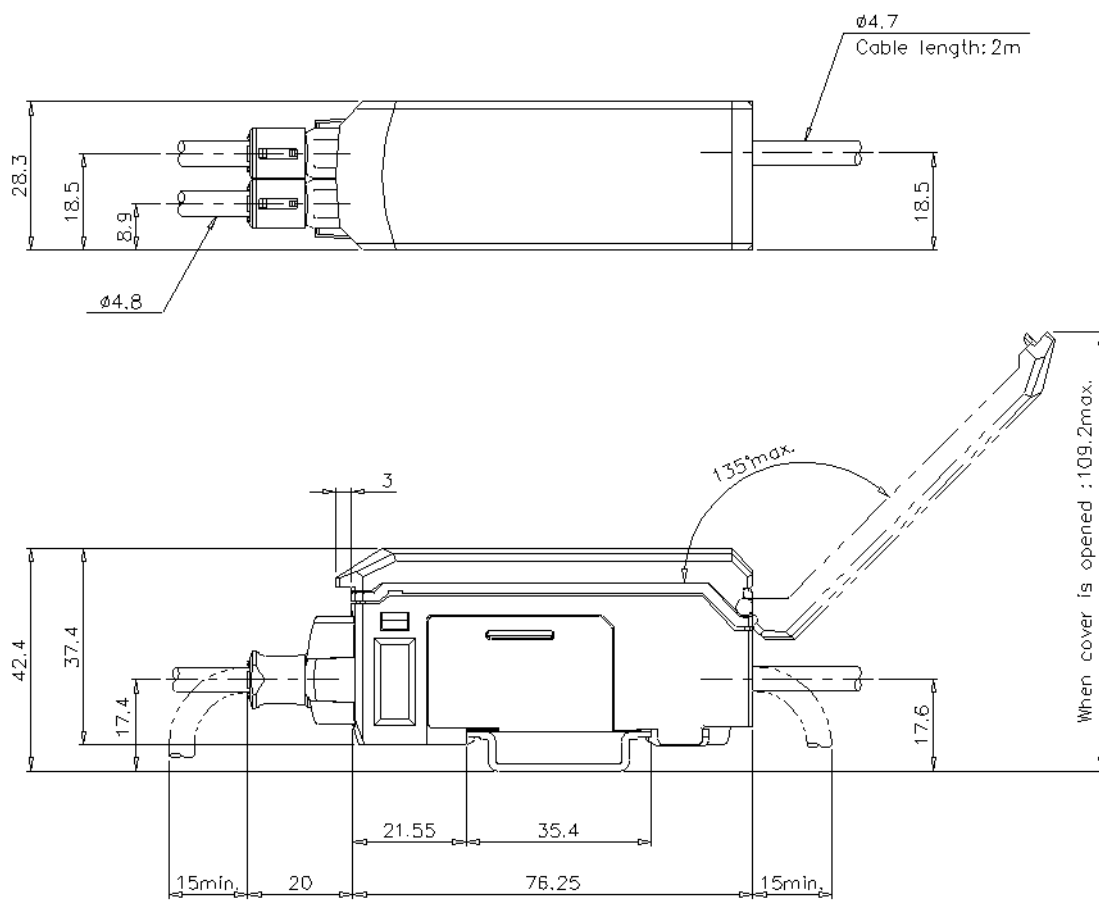
*3 For more details, refer to the User's Manual.

*4 Delay time that occurs from the analog output circuit after the judgment is output.

Dimensions

* Download CAD file or product manual for larger image/text and more detail.

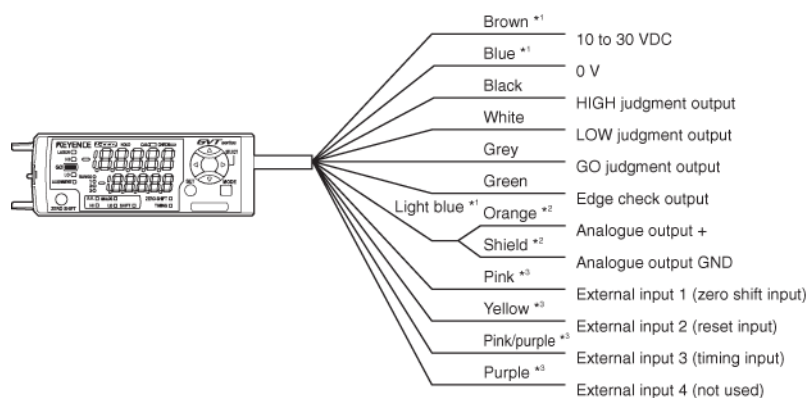
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I/O Circuit Connection diagram

* Download CAD file or product manual for larger image/text and more detail.

Wiring Diagram



*1 The brown, blue, and light blue cables are not provided in a IG-1050/IG-1550 unit (expansion unit).

The power is supplied to the expansion unit from the IG-1000/IG-1500 unit (main unit).

*2 For an analogue output, OFF (not used), 0 to 5 V, ± 5 V, 1 to 5 V, or 4 to 20 mA can be selected.

*3 For an external input, bank A input, bank B input, laser emission stop input, or OFF (not used) can also be selected.

For external input 4, gain input can also be selected.

For details, refer to the User's Manual.