

Analog Input Modules

GT1-AD

Analog Input Module Compatible with MULTIPLE I/O TERMINAL

- Input block incorporates connectors that can be easily mounted or dismounted.
- 8 inputs
- High resolution of 1/6,000
- High conversion speed of 8 ms/8 points or 4 ms/4 points.
- Dimensions of connector model:
110 × 60 × 65 (W × H × D)
Dimensions of terminal block model:
80 × 80 × 65 (W × H × D)
- DIN track mounting.



Ordering Information

I/O classification	I/O points	Terminal	Power supply voltage	I/O specification	Model
Analog input	8	Molex connector	24 VDC	4 to 20 mA, 0 to 20 mA, 0 to 5 V, 1 to 5 V, 0 to 10 V, -10 to 10 V	GT1-AD08MX
	4	Terminal block			GT1-AD04

Note: A connector cable, GCN1-004, is included with each module.

Specifications

■ Input

Item		Voltage input	Current input
Input points		8	
Input type		0 to 5 V, 1 to 5 V, 0 to 10 V, -10 to 10 V	0 to 20 mA, 4 to 20 mA
Max. signal input		±15 V	±30 mA
Input impedance		1 MΩ min.	Approx. 250 Ω
Resolution		1/6,000 (FS)	
Overall accuracy	25°C	±0.3% FS	±0.4% FS
	-10°C to 55°C	±0.6% FS	±0.8% FS
Conversion speed		8 ms/8 points, 4 ms/4 points	
Conversion output data		Binary data -10- to 10-V range: F448 to 0BB8 full scale Other signal ranges: 0000 to 1770 full scale	
Insulation method		Transistor or photocoupler insulation between inputs and power lines.	

■ Characteristics

I/O power supply voltage	20.4 to 26.4 VDC (24 VDC +10%/-15%)	
Current consumption	I/O module interface	Internal circuitry power supply
	50 mA max.	100 mA max.
Noise immunity	±1,500 V (p-p) with a pulse width of 0.1 to 1 μs	
Vibration resistance	10 to 150 Hz, 1.0-mm double amplitude or 70 m/s ²	
Shock resistance	200 m/S ²	
Dielectric strength	500 VAC	
Mounting method	35-mm DIN track mounting	
Mounting strength	No damage when 100 N pull load was applied in all directions (10 N min. in the DIN track direction)	
Terminal strength	No damage when 100 N pull load was applied	
Ambient temperature	Operating: -10°C to 55°C (with no icing or condensation) Storage: -25°C to 65°C (with no icing or condensation)	
Ambient humidity	Operating: 25% to 85%	

■ Connector

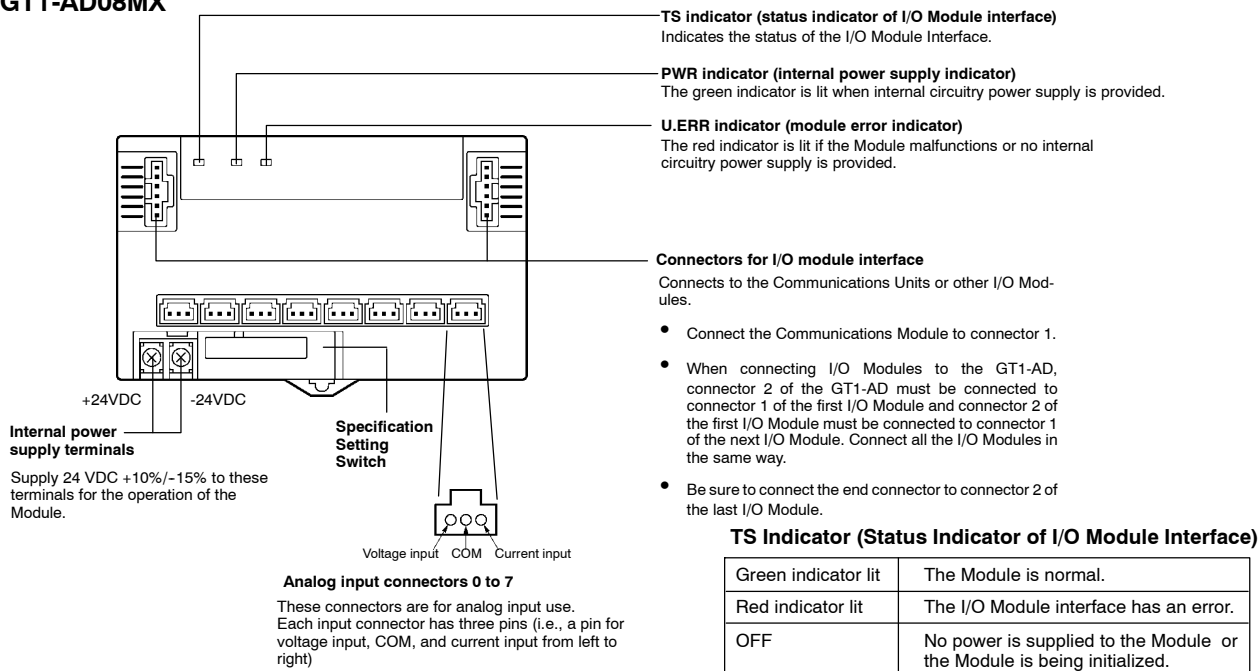
Type			Model	Remarks
Molex connector	IDC (Use Press-fit tool.)	Housing	GCN1-MX25-B*	(25 piece bag from OMRON) 22 AWG
		Solderless terminal	50-57-9403	
	Solderless terminal	Chain terminal	16-02-0069	24 to 30 AWG
			16-02-0086	22 to 24 AWG
		Loose terminal	16-02-0096	24 to 30 AWG
		Press-fit tool	11-01-0209	(See Note.)

Note: Contact your OMRON representatives for the above connectors.

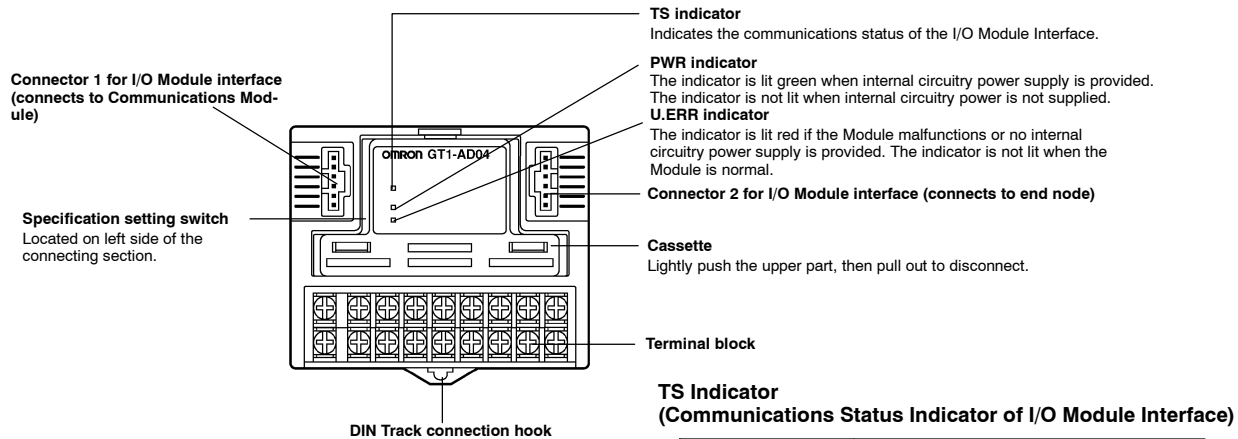
*Stocked by OMRON.

Nomenclature

GT1-AD08MX



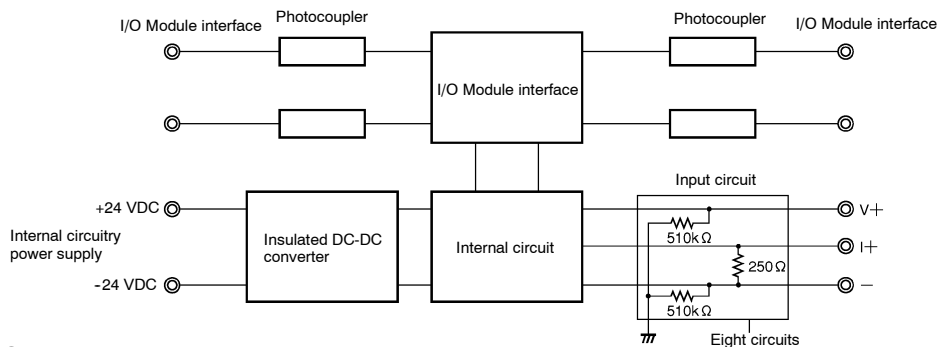
GT1-AD04



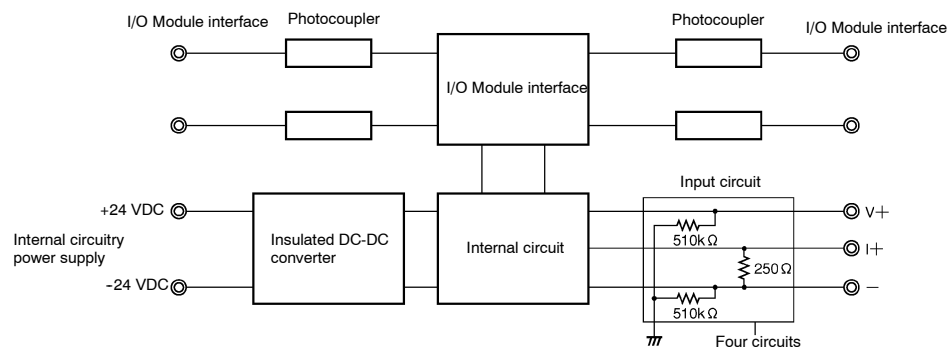
Operation

■ Internal Circuit Configuration

GT1-AD08MX



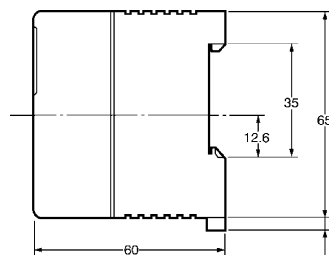
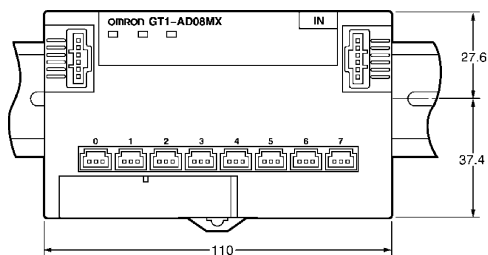
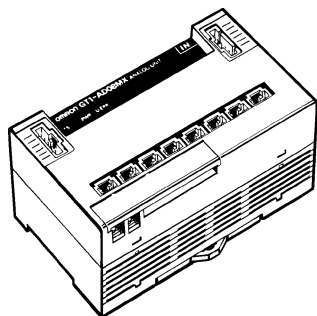
GT1-AD04



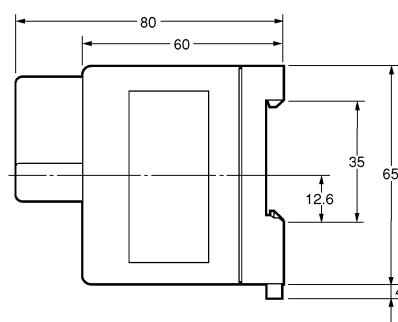
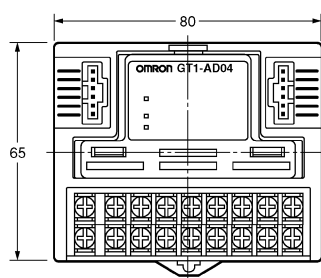
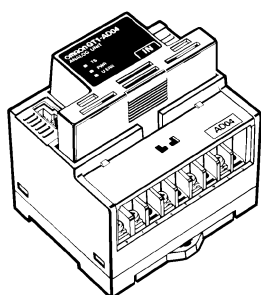
Dimensions

Note: All units are in millimeters unless otherwise indicated.

GT1-AD08MX



GT1-AD04

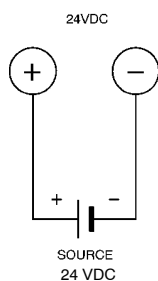


Installation

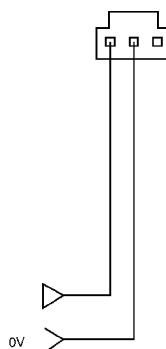
■ Wiring

Be sure to connect Molex-made connectors for analog input wires and connect the wires as shown below.

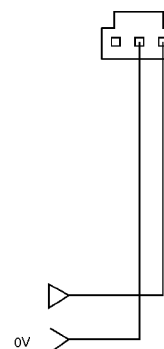
Internal Circuitry Power Supply



Voltage Input



Current Input



Precautions

Refer to the *DeviceNet Operation Manual (W267)* before using the Module.

Wiring

- To prevent inductive noise, do not wire power lines or high-tension lines along with or near the cables. Other noise-prevention techniques, such as using shielding or separate conduit/ducting, are also effective.
- Install the Module as far as possible from equipment that generates strong high-frequency signals (such as high-frequency welders) and equipment that generates surges. Such equipment can cause the Module to malfunction.
- Install surge absorbers or noise filters on nearby equipment that generates noise, particularly equipment that has inductive components such as motors, transformers, solenoids, or magnetic coils.
- When using a noise filter in the power supply, check the voltage and current and install the noise filter as close as possible to the Module.

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

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