

Systempak (Analog/Single Case)

Isolator Module

Model J-SIP 60/65

Introduction

The Isolator Module (J-SIP60/65) is a signal conversion module housed in a single case and accepts a 1 to 5 VDC or 4 to 20 mA DC input and converts it into an isolated 1 to 5 V DC or 4 to 20 mA DC output signal. The Isolator Modules are available for one-output (J-SIP60) or two-output (J-SIP65) model. The Isolator Module with integrated transmitter power supply also available. Complete isolation is employed between the power, input, and output circuits. In the two-output model, isolation is employed also between the two output circuits.

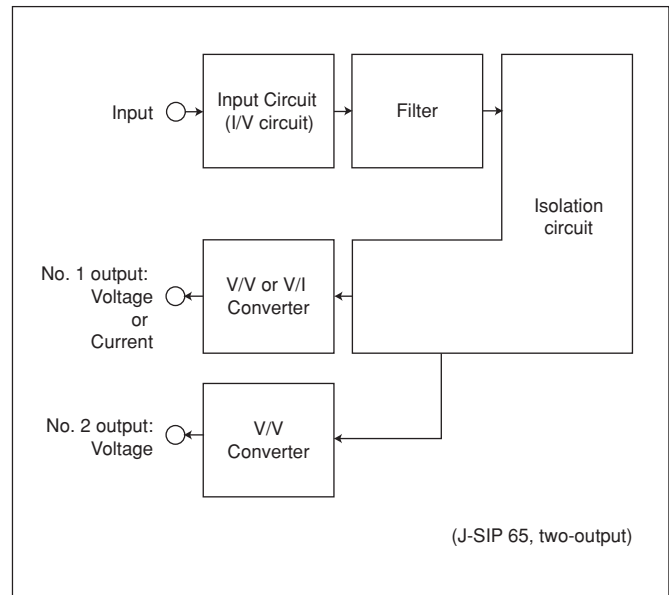
Specification

- Input signal: 1 to 5V DC or 4 to 20 mA DC
- Input impedance: 250 Ω (current), 1 M Ω (voltage)
- Output signal:
 - No. 1 output; 1 to 5V DC or 4 to 20 mA DC
 - No. 2 output; 1 to 5V DC
 - No. 1 and No. 2 outputs are isolated.
- Output impedance:
 - Voltage output; 250 Ω or less (No. 1 and No. 2 outputs)
 - Current output; 250 k Ω or more (No. 1 output)
- Load: 0 to 600 Ω
- Output accuracy: $\pm 0.15\%$ FS (No. 1 and No. 2 outputs)
- Insulation resistance:
 - 500V DC, 100 M Ω min (Mutual between input - output - GND - power terminal)
- Withstand voltage:
 - 1000V AC, 1 min (Mutual between input - output - GND - power terminal)
- Power supply: 24V DC $^{+10}_{-15}\%$
- Transmitter power supply:
 - 24V DC $\pm 10\%$, 25 mA (w/ current-limiting circuit 40 mA)
- Current consumption:
 - w/o transmitter power supply ... 140 mA max. (at 24V DC)
 - w/ transmitter power supply ... 160 mA max. (at 24V DC)
- Ambient temperature:
 - Normal operating condition; 5 to 45 $^{\circ}$ C
 - Operation limit; -5 to 55 $^{\circ}$ C
- Ambient humidity: 0 to 90%RH (No condensation allowed)
- Mounting: Panel, Wall, DIN rail mounting
- Color of front mask: Black
- Weight: 400 g
- Operating influence:
 - Supply voltage effect; $\pm 0.1\%$ FS/24V $^{+10}_{-15}$ DC%
 - Temperature effect; $\pm 0.15\%$ FS/10 $^{\circ}$ C



Theory of Operation

An input is converted into an appropriate impedance by the Input circuit, and the Filter circuit removes any AC noise. The 1 to 5V DC (passing through the V/F and F/V converters) is isolated by the photocoupler and is V/V- or V/I-converted for voltage or current output.



Model Number Table

One-output model:

Basic Model Number	Selections		Additions	Description
	I	II		
J-SIP60				Isolator Module (One-output model)
	X			No varnish coated
	C			Varnish coated
			-1	Input signal: 1 - 5 V DC
			-2	Input signal: 4 - 20 mA DC
			-3	Input signal: 4 to 20 mA DC (w/ transmitter 24V DC power supply)
			1	Output signal: 1 to 5V DC
			2	Output signal: 4 to 20 mA DC
			-0	Without test report
			-1	With test report

Two-output model:

Basic Model Number	Selections		Additions	Description
	I	II		
J-SIP65				Isolator Module (Two-output model)
	X			No varnish coated
	C			Varnish coated
			-1	Input signal: 1 to 5V DC
			-2	Input signal: 4 to 20 mA DC
			-3	Input signal: 4 to 20 mA DC (w/ transmitter 24V DC power supply)
			1	No. 1 output signal: 1 to 5V DC, No. 2 output signal: 1 to 5V DC
			2	No. 1 output signal: 4 to 20 mA DC, No. 2 output signal: 1 to 5V DC
			-0	Without test report
			-1	With test report

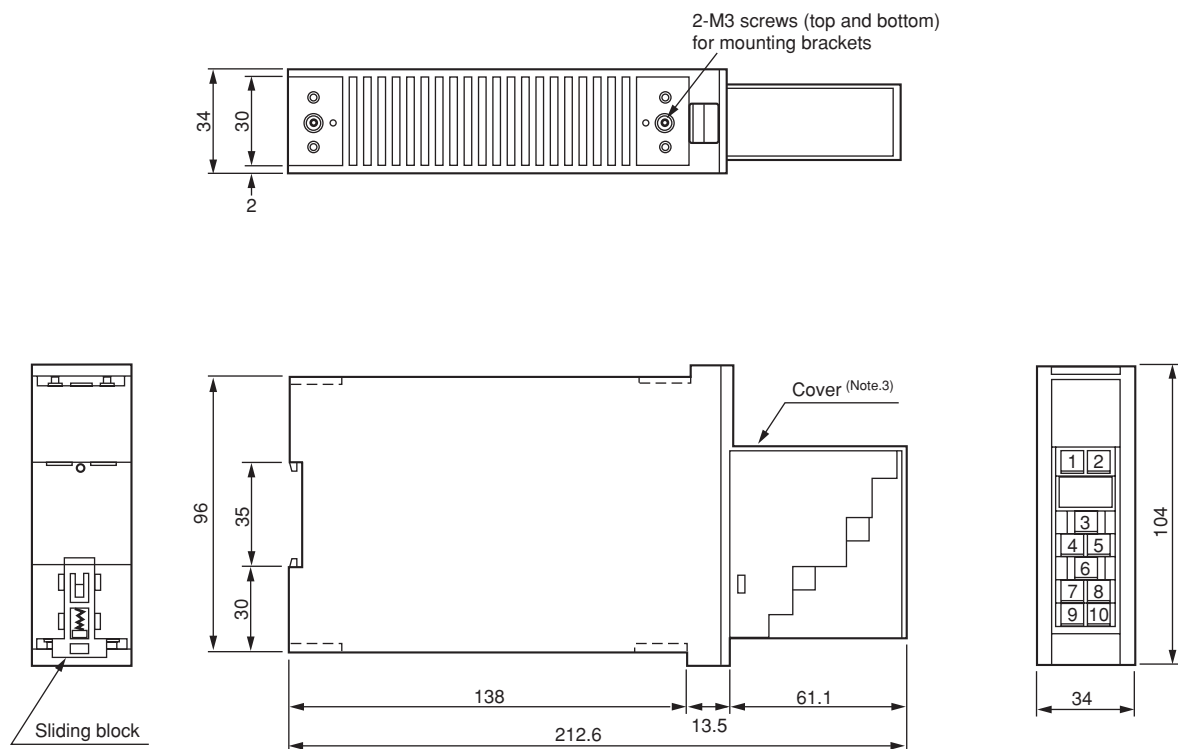


Table 1. Without transmitter power supply

No.	Description
1 ^(Note.2)	Input (-)
2 ^(Note.2)	Input (+)
3	--
4	No.1 output (+)
5	No.1 output (-)
6	No.2 output (+) ^(Note.1)
7	No.2 output (-) ^(Note.1)
8	24V (PS+)
9	GND
10	0V (PS-)

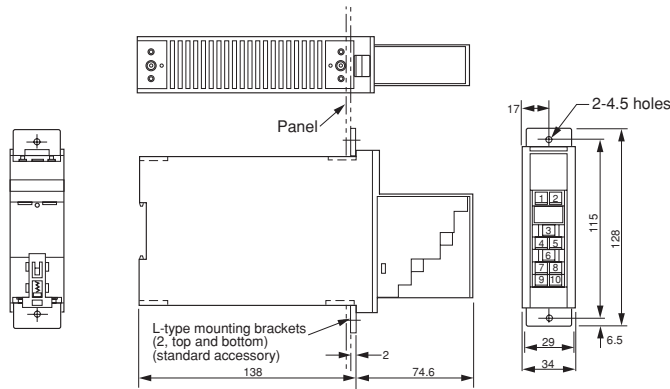
Table 2. With transmitter power supply

No.	Description
1 ^(Note.2)	--
2 ^(Note.2)	Transmitter Input (-)
3	Transmitter Input (+)
4	No.1 output (+)
5	No.1 output (-)
6	No.2 output (+) ^(Note.1)
7	No.2 output (-) ^(Note.1)
8	24V (PS+)
9	GND
10	0V (PS-)

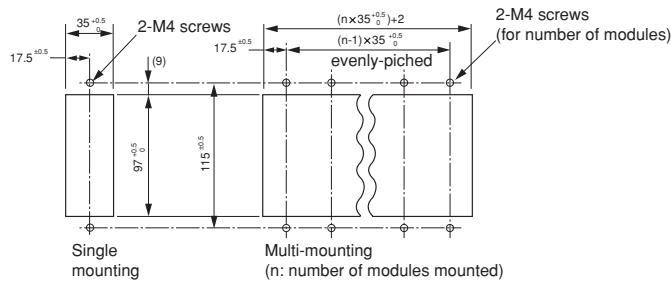
- Note : 1) Only available for two-output model.
 2) 250 Ω resistor is added for current input.
 3) Do not remove the cover during operation.
 4) Terminal screws : M3.5
 5) Use the terminal clamp with insulation sheath.
 6) The model with Transmitter power supply, will be able to use as the model without power supply by means of same connection per table 1.

Figure 1. Dimensions and wirings

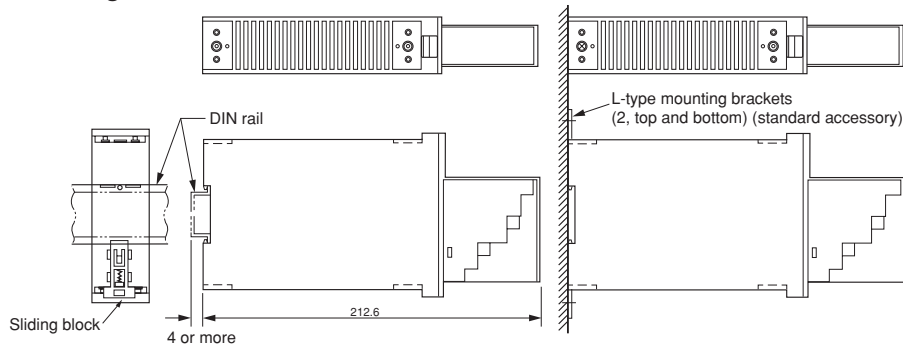
Panel-mounting



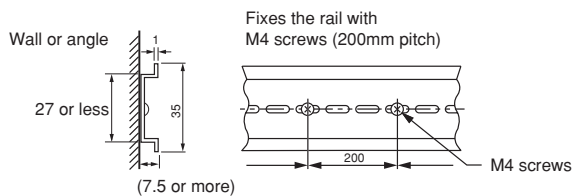
Panel-cutout



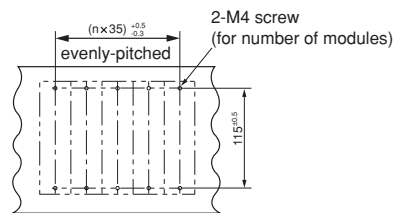
DIN rail mounting



DIN rail mounting



Wall-mounting (n: number of modules mounted)



Recommended DIN rail and end fittings

Rail : DAS-4 [Toyo Giken made]

End fittings : ATO-29 [Toyo Giken made]

Figure 2. Mounting method

Please read the "Terms and Conditions" from the following URL before ordering or use:

<http://www.azbil.com/products/bi/order.html>

Specifications are subject to change without notice.

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