

Common Specifications

External control

Digital zero	Zero display at any time
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Comparative output specifications

Comparison result	3 setpoints (HH/HI/GO or HI/GO/LO or GO/LO/LL)
Output method	Relay output or photocoupler output
Output rating	Relay output : Contact rating : 24VDC 1A (Resistance load) The mechanical life : 5 million times The electrical life : 10 thousand times Photocoupler output: Output rating Sink current : 50mA Applied voltage : 30VDC Output saturation : 1.2V or less (When 50mA)
Setting range	-9999 to 9999
Hysteresis	Able to set 1 to 999 digit for each setpoints
Operation speed	Relay : Max. 5ms, Photocoupler : Max. 1ms

HI/GO/LO

Comparative condition	Result		Comparative output			Relay contact
	AL1	AL2	LO (OUT1)	GO (OUT2)	HI (OUT3)	
Display value > HI	OFF	ON	OFF	OFF	ON	Normal open
HI ≥ Display value ≥ LO	OFF	OFF	OFF	ON	OFF	
L > Display value	ON	OFF	ON	OFF	OFF	

HH/HI/GO

Comparative condition	Result		Comparative output			Relay contact
	AL1	AL2	GO (OUT1)	HI (OUT2)	HH (OUT3)	
Display value > HH	ON	ON	OFF	ON	ON	Normal open
Display value > HI	ON	OFF	OFF	ON	OFF	
HI ≥ Display value	OFF	OFF	ON	OFF	OFF	

GO/LO/LL

Comparative condition	Result		Comparative output			Relay contact
	AL1	AL2	LL (OUT1)	LO (OUT2)	GO (OUT3)	
Display value ≥ LO	OFF	OFF	OFF	OFF	ON	Normal open
LO > Display value	OFF	ON	OFF	ON	OFF	
LL > Display value	ON	ON	ON	ON	OFF	

Option Specifications

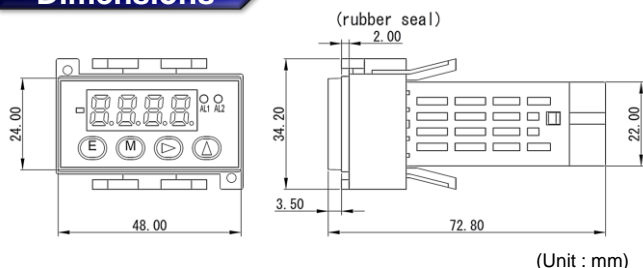
Analog output specifications

Analog output	Load resistance	Accuracy	Ripple
4 to 20mA	510Ω or less	±0.2% of span	±25mVp-p
0 to 10V	5kΩ or more		±50mVp-p
Conversion	PWM		
Resolution	13 bit		
Response time	Approx. 100ms		

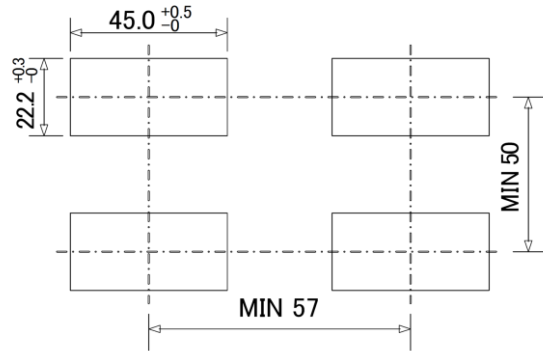
RS-485 output specifications

RS-485	
Synchronous system	Asynchronous mode
Communication method	2-wire half duplex
Communication speed	38400 / 19200 / 9600 / 4800 / 2400bps
Start bit	1bit
Data length	7bit, 8bit
Parity bit	None, Odd, Even
Error detection	BCC checksum
Stop bit	1bit, 2bit
Character code	ASCII
Transmission control	Non-procedure
Signal name	Non-inverting (+), inverting (-)
No. of connectable units	31 units
Line length	Max. 500m (Total) *Not more than 30m if EN compliance
Delimiter	CR + LF / CR
Terminating resistance	200Ω (Turn ON by short circuit between No. 5~6 terminals)

Dimensions



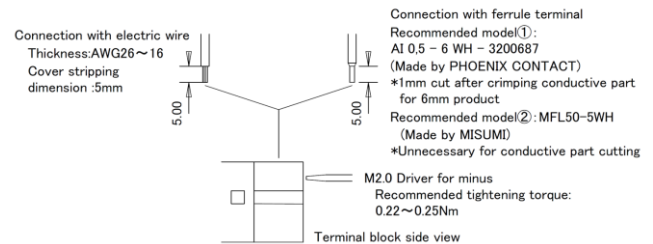
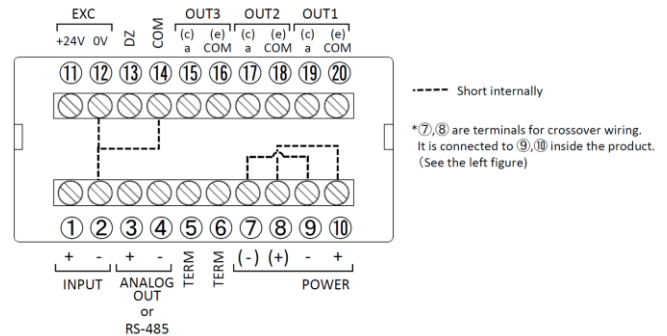
Panel cut



*Recommended panel thickness: 1 ~ 8mm

(Unit : mm)

Terminal connections



Lower side terminal

(Input, power supply, option output)

No.	RS-485 (Option output code 4)		Analog output (Option output code 6, 7)		
	Name	Description	Name	Description	
1	HI	Input	(+)	HI	Input
2	LO		(-)	LO	
3	RS-485(+)	Non-inverting output		A.OUT(+)	Analog output
4	RS-485(-)	Inverting output		A.OUT(-)	
5		Terminator		NC	No connection
6	TERM				
7	POWER(-)	Power supply *For connecting wire	(+)	POWER(-)	Power supply
8	POWER(+)		(-)	POWER(+)	
9	POWER(-)	Power supply	(+)	POWER(-)	Power supply
10	POWER(+)		(-)	POWER(+)	

*Note : If option code 1 (No output), terminal 3 to 6 will be NC (No connection)

Upper side terminal

(Comparative output, sensor power supply, external control)

No.	Relay output (Comparative output code R)		Photo coupler output (Comparative output code P)		
	Name	Description	Name	Description	
11	EXC(+)	Sensor power supply	(+)	EXC(+)	Sensor power supply
12	EXC(-)		(-)	EXC(-)	
13	DZ	External control		DZ	External control
14	COM	External control (COM)		COM	External control (COM)
15	OUT3-a	OUT3 Normal open		OUT3-c	OUT3 Collector
16	OUT3-COM	OUT3 Common terminal		OUT3-e	OUT3 Emitter
17	OUT2-a	OUT2 Normal open		OUT2-c	OUT2 Collector
18	OUT2-COM	OUT2 Common terminal		OUT2-e	OUT2 Emitter
19	OUT1-a	OUT1 Normal open		OUT1-c	OUT1 Collector
20	OUT1-COM	OUT1 Common terminal		OUT1-e	OUT1 Emitter

* Specification is subject to change without notice