FUTUREDESIGN CONTROLS

IA10

Indicator and Alarm Unit

The IA10 Indicator and Alarm Unit offers two input channels capable of performing arithmetic operations (+, −, ×, ÷) for enhanced data processing. Its three-color LCD displays provide clear and intuitive readability, with the main and secondary screens supporting five-digit values and up to four decimal places. A dedicated status and unit display section (℃ , ℉ , PU) on the left ensures quick reference.

Designed for flexibility, the IA10 supports up to five alarms or three linear signal retransmissions. Additionally, six event inputs enable alarm reset and custom control functions, optimizing operational efficiency. With its precision, adaptability, and user-friendly design, the IA10 is the ideal solution for reliable monitoring and intelligent alarm management in industrial applications.

Specifications

Power		
Power Supply	90 to 250 VAC, 47 to 63 Hz, 20 to 28 VAC, 47 to 63 Hz / 11 to 40 VDC	
Power Consumption	12VA,6W Maximum	
Over Voltage Category	II	
Input 1		
Type	Thermocouple (J,K,T,E,B,R,S,N,L,U,P,C,D), RTD(PT100(DIN),PT100(JIS)), Current(mA), Voltage(V,mV)	
Resolution	18 Bits	
Sampling Rate	5Time/Sec(200msec)	
Input 2		
Type	Linear Current, Linear Voltage	
Range	-3mA to 27mA, -1.3V to 11.5VDC	
Resolution	18 Bits	
Sampling Rate	0.9 time/Sec	
Event Input		
Logic Low	-10VDC minimum, 0.8VDC maximum	
Logic High	2VDC minimum, 10VDC maximum	
Alarm		
Relay Type	Form A	
Maximum Rating	2A,240VAC, 200,000 Life cycles for resistive load	
Alarm Functions	Hi, Lo, Hi Latch, Lo Latch	
Data Communication		
Interface	RS-485	
Protocol	Modbus RTU (Slave Mode)	
Address	1 to 247	
Baud Rate	2.4KBPS to 115.2KBPS	
Parity Bit	None, Even or Odd	
Stop Bit	1 or 2 Bits	
Data Length	7 or 8 Bits	
Communication Buffer	160 Bytes	
	Analog Retransmission	**Open Loop**
Output Signal	4-20mA, 0-20mA, 0-10VDC	4-20mA
Resolution	15 Bits	15 Bits
Accuracy	±0.05% of Span ±0.0025% / °C	±0.05% of Span ±0.0025% / °C
Linear Output Range	0-22.2mA (0-20mA/4-20mA), 0-5.55VDC (0-5VDC,1-5VDC), 0-11.1VDC (0-10VDC)	0-22.2mA
Environmental and Physical Specifications		
Operating Temperature	-10°C to 50°C	
Storage Temperature	-40°C to 60°C	
Humidity	0 to 90 % RH (Non-Condensing)	
Altitude	2000 Meters Maximum	
Pollution	Degree II	
Mounting	Panel	
DIN Size	1/8	
Weight (grams)	220	
Size(W*H*D)(mm)	96*48*59	
Depth Behind Panel (mm)	50	
Cut Out (mm)	92*45	
Approval Standards		
Safety* in progress	UL 61010-1, 3rd Edition, CAN/CSA-C22.2 No.61010-1(2012-05), 3rd Edition, ROHS, REACH	
Protective Class	IP50 for the front panel, IP20 for rear terminals and housing. All indoor use.	
EMC	EN61326	

Ordering Code

IA10 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - 0 - [ ] - [ ]

1 Power Input
- 4: 90 to 250 VAC,47-63Hz
- 5: 20 to 28 VAC,47-63Hz / 11 to 40 VDC

2 Output 1/ Alarm 4
- 0: None
- 1: Form A Relay(2A/250V) For Alarm4
- 3: Isolated 0-20mA/4-20mA Retransmission(OM98-3)
- 4: Loop 0-20mA/4-20mA (CM9D-3)
- 5: Isolated 0-10V Retransmission (OM98-5)
- 7: Isolated DC20V/25mA DC Output power Supply(DC94-1)

3 Output 2 / Alarm 3
- 0: None
- 1: Form A Relay(2A/250V) For Alarm3
- 3: Isolated 0-20mA/4-20mA Retransmission (OM98-3)
- 4: Loop 0-20mA/4-20mA (CM9D-3)
- 5: Isolated 0-10V Retransmission(OM98-5)
- 7: Isolated DC20V/25mA DC Output power Supply(DC94-1)

4 Alarm 2 to 1
- 0: None
- 1: Form A Relay (2A,250V) on Alarm 2
- 2: Form A Relay (2A,250V) on Alarm 2 to 1

5 Event Input
- 0: None
- 1: 6 Event Inputs

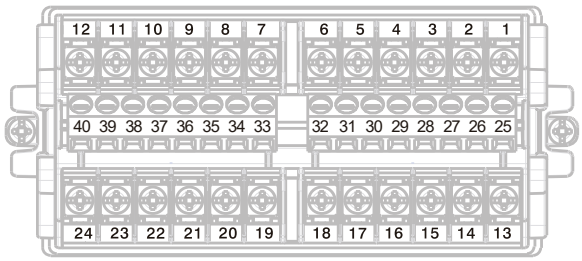
6 Option 1
- 0: None
- 1: RS-485
- 2: Input 2
- 3: RS-485 and Input 2

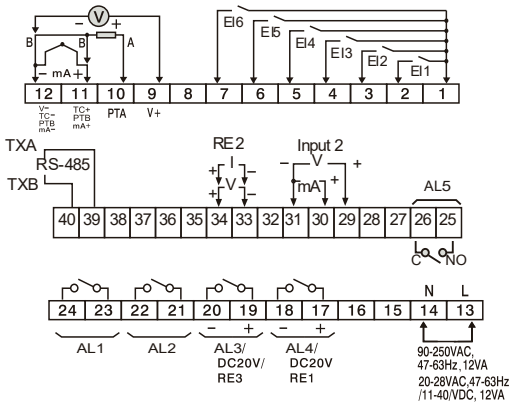
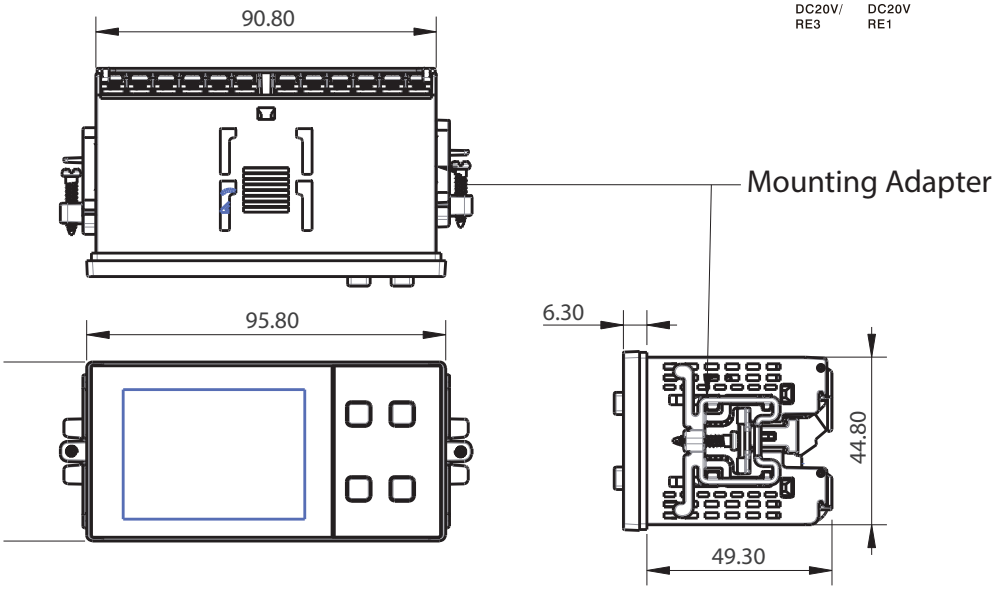
7 Option 2
- 0: None

8 Option 3
- 0: None
- 1: Form A Relay(2A/250V) For Alarm5
- 3: Isolated 0-20mA/4-20mA Retransmission(CM98-3)
- 4: Loop 0-20mA/4-20mA (CM9C-3)
- 5: Isolated 0-10V Retransmission(CM98-5)
- 6: Form A Relay(2A/250V) For Alarm5 and Isolated 0-20mA/4-20mA Retransmission(CM98-3)
- 7: Form A Relay(2A/250V) For Alarm5 and Isolated 0-10V Retransmission(CM98-5)
- 8: Form A Relay(2A/250V) For Alarm5 and Loop 0-20mA/4-20mA (CM9C-3)

9 Option 4
- 0: None
- 1: Terminal Cover

Wiring Diagram





Dimensions