BrainChild

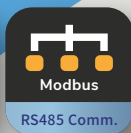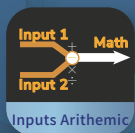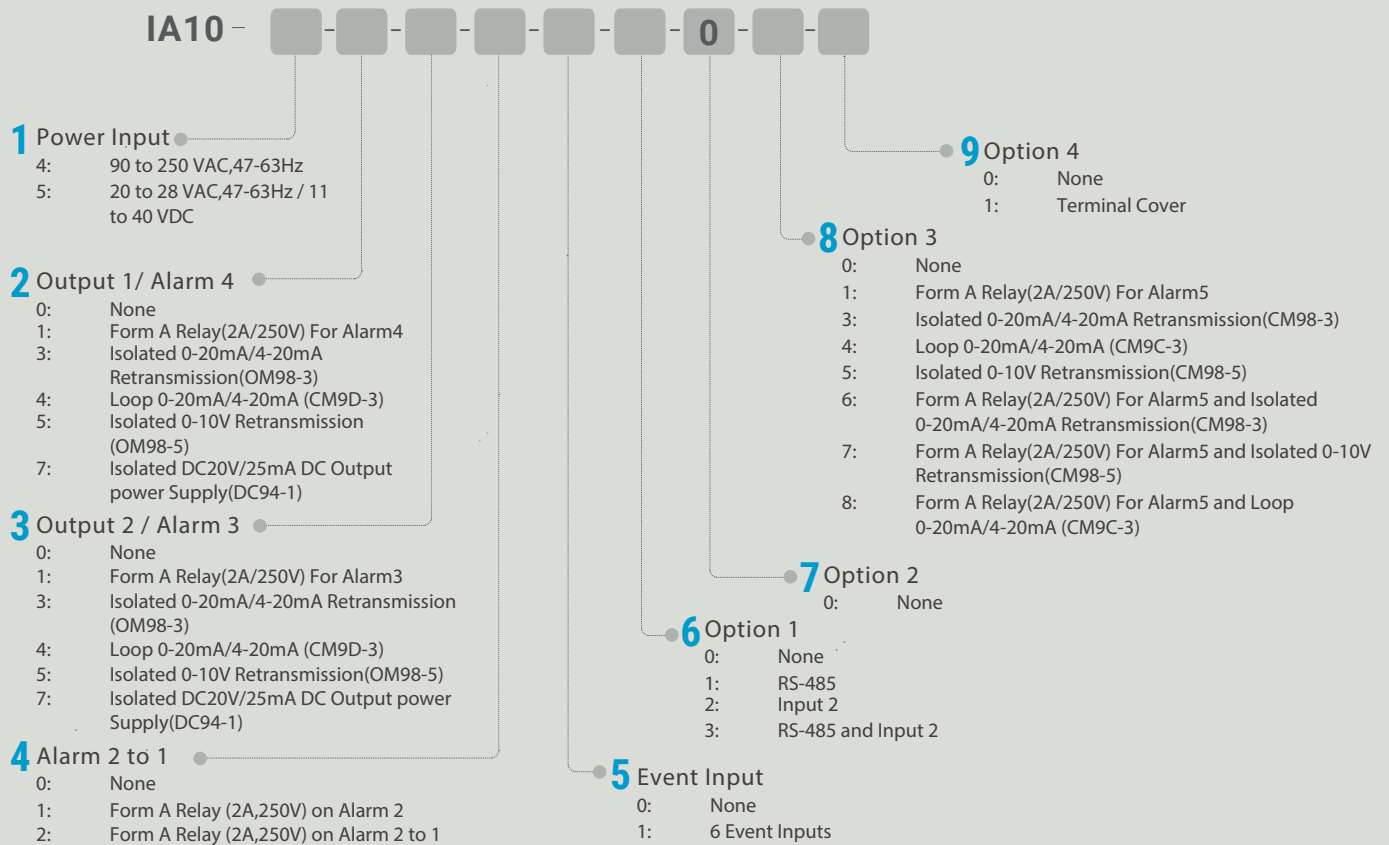| Inputs Arithemic	5 Digits	5 Alarms	6 Event Inputs	LCD Display	Modbus RS485 Comm.	18bit A-D	Lock Protection
Input 1 Input 2 Math	12345	5×🔔	6×EI	LCD	Modbus	ADC	⚙🔒

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.
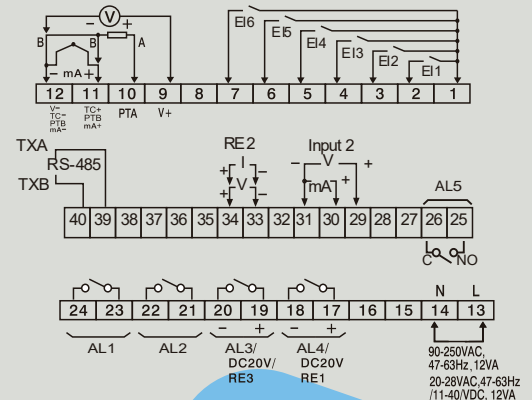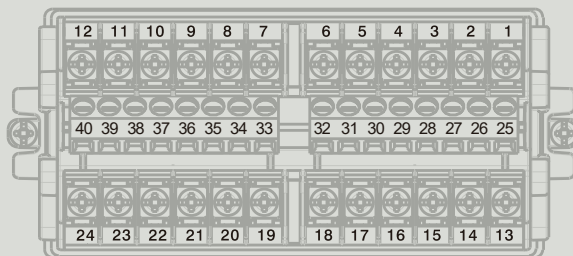
Specifications

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

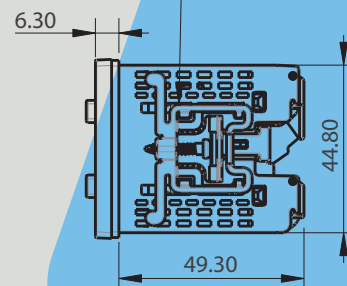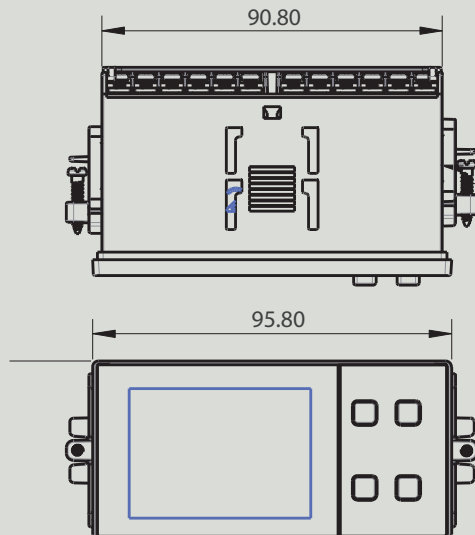| Approval Standards	
Safety· in progress	UL 61010-1, 3rd Edition, CAN/CSA-C22.2 No.61010-1(2012-05), 3rd Edition, ROHS, REACH
Protective Class	IP50 for the front panel, IP20 for rear terminals and housing. All indoor use.
EMC	EN61326

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

Mounting Adapter

90.80

95.80

6.30

44.80

49.30