

**YUTECH A10 SERIES MODBUS RTU CARD, PROCESS INDICATOR, JUMBO DISPLAY, TRANSMITTER, ISOLATORS, AUTO-MANUAL STATION AND CONTROLLER BASED ON YUTECH'S A10 PLATFORM**



**AUTO-MANUAL STATION**



**PROCESS INDICATOR**



**JUMBO DISPLAY OR LARGE OVERHEAD PROCESS INDICATOR**

**MODBUS RTU SERIAL COMMUNICATION CARDS:**

**Universal Input Analog Input Card: (Product Code: A10SMRDCU8)**

- Power Supply: 24VDC
- Input: 4-20mA / 0-5VDC / RTD / TC (K-Type)
- Analog Input Resolution: 16 Bit
- Number of Channels: 8
- Communication: RS 485 (Modbus RTU)



**UNIVERSAL INPUT, MODBUS RTU CARD**

**Digital Input Card: (Product Code: A10SMRDCD8)**

- Power Supply: 24VDC
- Binary Input State Voltage: 24VDC High, 2VDC Low, 8 Channel
- Number of Channels: 8
- Communication: RS 485 (Modbus RTU)

**PROCESS INDICATORS, CONTROLLERS, AUTO-MANUAL STATIONS, JUMBO DISPLAYS:**

**TECHNICAL SPECIFICATIONS:**

- **Power Supply:** 85 - 265 VAC, 50 – 60Hz
- **Analyzer Enclosure:** Panel Mounted DIN 96 x 48, DIN 96 x 96 (AM Station).
- **Input:**
  - Universal: 4-20mA Current, 0-5VDC Voltage, RTD-PT100, Thermo-Couple K Type / J Type Standard. Other inputs like B, S, R and T Thermocouple and Frequency Input on request.
  - External Potentiometer (2K-Ohm) Connection for AM Station.
- **Calibration can be done from:**
  - **Keyboard:** Keyboard with 4 Keys is provided in the Transmitter
- **Display**
  - Process Indicator and Auto-Manual Station:
    - 4 Digit LED Display
  - Jumbo Display / Large Overhead LED Display (Single and Dual Side Display)
    - 4 Digit LED Display of Size 2", 2.8", 4", 6", 8", 10"
    - 8 Digit LED Display of Size 2", 2.8", 4", 6", 8", 10" (For Totalizer Application)
- **Signal Output:**
  - 4 - 20 mA (Scaled and Retransmitted Output)
- **Digital Output:**
  - Potential-Free Relay Output R1 for Input-1 and R2 for Input-2, Contact Current Rating: 2 Amps @230VAC.

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BASED ON YUTECH'S A10 PLATFORM**



**PRODUCT CODES:**

**PROCESS INDICATOR:**

PRODUCT CODE: A10PIACU1C1R2PM48

**JUMBO DISPLAY:**

PRODUCT CODE: A10JDACU1C1R2OH02

**AUTO-MANUAL STATION (WITH EXTERNAL POTENTIOMETER FACILITY):**

PRODUCT CODE: A10AMACU2C1R2PM96: First Universal Analog Input for the Process / Control Variable while the Second Input is for 2K-Ohms External Potentiometer (Manual Operation), this feature is given so that the user can easily change the Pot if it is damaged after prolonged use, without having to open the instrument.

**PID CONTROLLER:**

PRODUCT CODE: A10PCACU2C1R2PM48

**TIME PROPORTIONATE PID CONTROLLER:**

PRODUCT CODE: A10TPACU2C1R2PM48

**UNIVERSAL INPUT ANALOG INPUT CARD:**

PRODUCT CODE: A10SMRDCU8

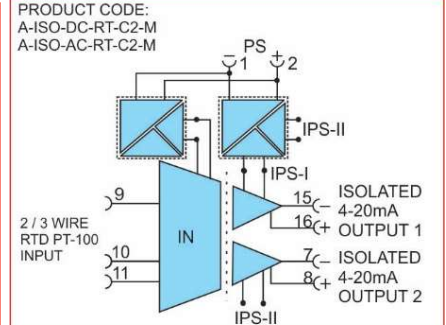
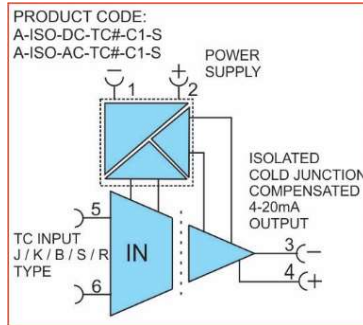
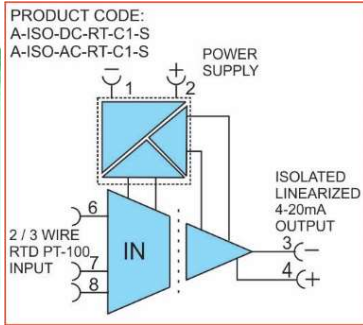
**UNIVERSAL INPUT DIGITAL INPUT CARD:**

PRODUCT CODE: A10SMRDCD8

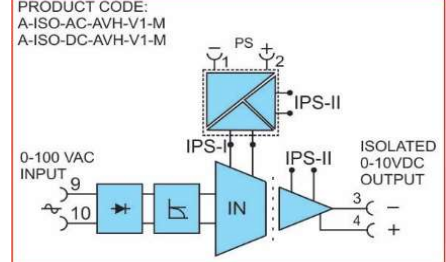
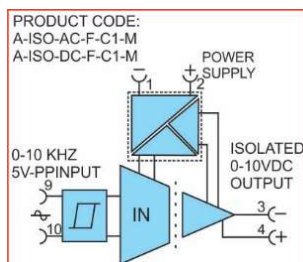
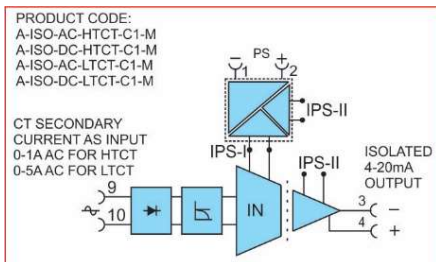
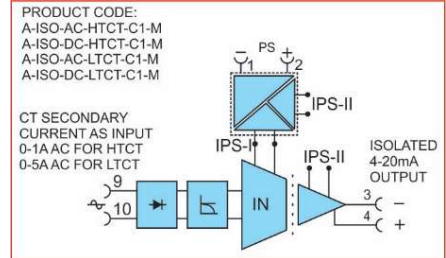
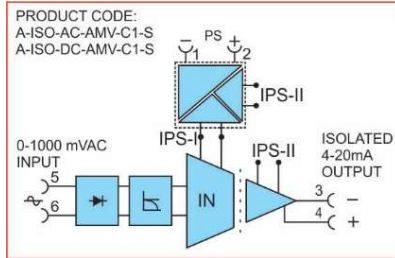
**DECODING PRODUCT CODES:**

- A10PIACU1C1R2PM48: **A10PI** is the Product Category – **A10 SERIES, PROCESS INDICATOR**
  - **AC** means AC Power Supply (85 – 260VAC, 50-60Hz) and **DC** means 24VDC Power Supply
  - Analog Input: **U1 / U2** Means 1 or 2 Channels Universal Input
  - Analog Output: **C1 / C2** Means 1 or 2 Channels 4-20mA Current Output
  - **R2** means 2 Potential-Free Relay Outputs.
  - **PM** means Panel Mounted Enclosure (48 means 96x48mm and 96 means 96x96mm)
- A10**AMACU2**C1R2PM96: AM is **AUTO-MANUAL STATION**
- **A10JDACU1C1R2OH02** – **JUMBO DISPLAY**
  - **JD** means Jumbo Display or Overhead Large Display
  - **OH02** means Overhead Display Enclosure of 2" display size.
  - Similarly, **H03** is 2.8", **H04** is 4", **H06** is 6", **H08** is 8", **H10** is 10"
  - Therefore, **A10JDACU1C1R2OH06** is a Jumbo Display having a 6" Display Size and likewise
- **A10SMRDCU8** and **A10SMRDCD8** – **MODBUS CARDS**
  - SMR means Serial Communication Card having Modbus RTU Protocol
  - DC means 24VDC Power Supply
  - U8 means 8 Channels Universal Input, D8 means 8 Channels Digital Input

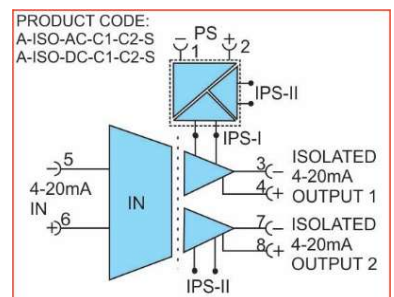
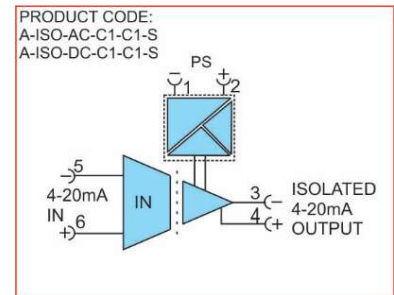
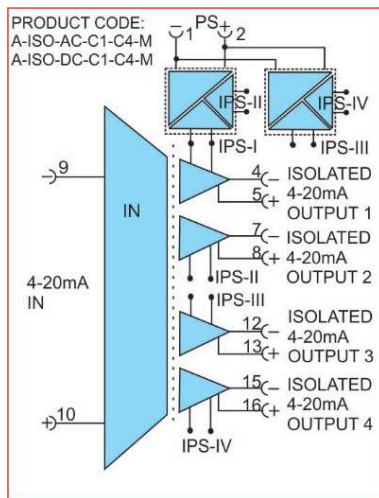
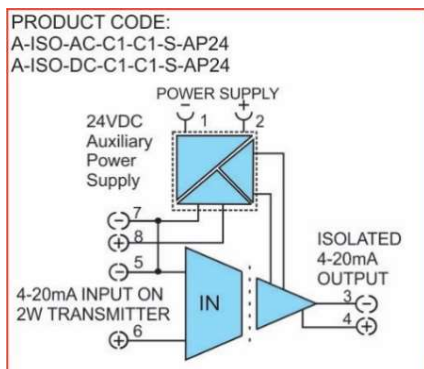
**ISOLATING TEMPERATURE TRANSMITTERS: IN: RTD AND THERMOCOUPLE, OUT: 4-20mA**



**ISOLATING AC CURRENT TRANSMITTER / CT CONVERTER / FREQUENCY CONVERTER / AC VOLTAGE CONVERTER: IN: CT INPUT, AC VOLTAGE, FREQUENCY, OUT: 4-20mA**



**ISOLATING CURRENT TRANSMITTER / REPEATER / BARRIER / ISOLATOR: IN: 4-20mA, OUT: 4-20mA SINGLE / DUAL / QUAD CHANNEL**

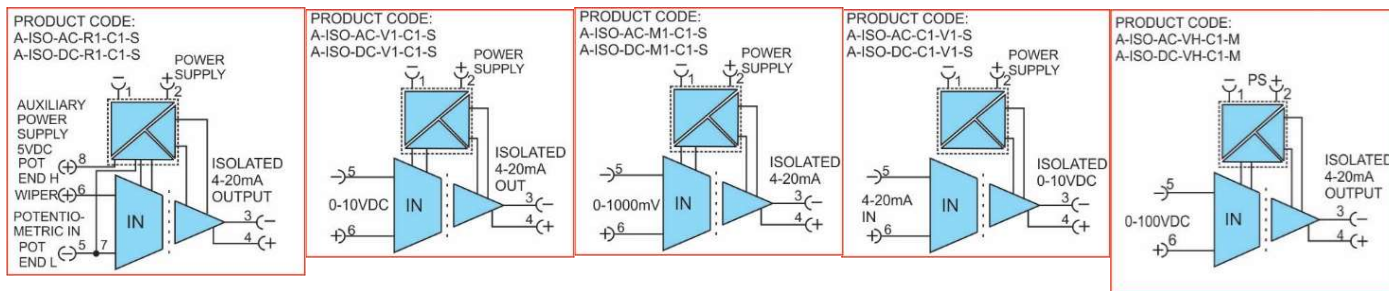


**DC mV / V OR mA / A, VARIOUS RTDs / TCs, AC mV / V OR mA / A / F. VARIOUS INPUT AND OUTPUT COMBINATIONS AVAILABLE**

# YUTECH A10 SERIES MODBUS RTU CARD, PROCESS INDICATOR, JUMBO DISPLAY, TRANSMITTER, ISOLATORS, AUTO-MANUAL STATION AND CONTROLLER ISOLATION PRODUCTS



## V TO I AND I TO V ISOLATING CONVERTERS: IN: 4-20mA / 0-10VDC, 0-1K-OHMS, OUT: 4-20mA, 0-10VDC

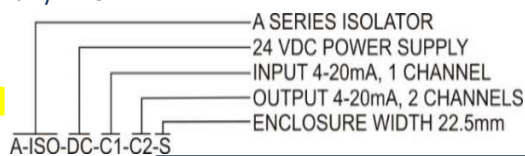


- Enclosure : Material of Construction – ABS, Rectangular Shape, DIN Rail Mounted
- Enclosure Dimensions : L: 107.5mm, H: 75mm; W: Please see Product Code (S: 22.5mm, M: 45mm)
- Ingress Protection : Enclosure is IP 40, Shock and Contamination Proof
- Flammability : For Enclosure - Class V0 according to UL 94.
- Ambient Temp. : -20°C to 55°C
- Power Consumption : 1W Maximum
- Power Supply Voltage : 16 to 36 VDC, We Recommend 24 VDC Standard Power Supply.  
(DC or AC) 85 to 265VAC, 50 / 60Hz, 110 or 230VAC Standard PS Recommended.
- Auxiliary Power Supply : 24VDC / 5VDC Loop (Optional in select models).
- Power Supply Isolation : 3 Point, Rail AC or DC Power Supply internally isolated from Input and Output PS.
- Barrier Voltage : Threshold Voltage of Isolation Barrier is 5KV RMS
- Isolation Type : Optical
- Input Signal : As per Isolator type and model.  
DC ISOLATING CONVERTERS: 0 to 100VDC / 0 to 10VDC / 4-20mA / 0- 100mV / 0-1K-Ohms  
TEMPERATURE TRANSMITTERS: 3W or 4W RTD PT-100 / 4W RTD PT-1000 / Thermocouple  
CT CONVERTERS / AC ISOLATORS: 0-1A / 0-5A AC, 0-1000mVAC, 0-100VAC  
CURRENT ISOLATORS / ISOLATING REPEATERS / ISOLATION BARRIERS: 4-20mA
- Loop Voltage Drop : 5VDC drop across Input, for 4-20mA Input circuits.
- Protections : Reverse Loop Protection for DC Power Supply, EMI & RFI Filters for Input Signal
- Output Signal : As per Isolator type and model.  
0 to 10VDC / 4-20mA
- Max Output Load : 600 Ohms Permissible Resistive Load for Current Output
- Max Non-linearity : ±0.1% with respect to Full Scale Range at maximum ambient temperature.
- Output Calibration : **A-ISO** RANGE OF PRODUCTS: On Fascia, Zero, and Span adjust by Trim pot.  
**A10ISO** RANGE OF PRODUCTS: On Fascia, Zero, and Span adjust by Keyboard

### DECODING ISOLATOR PRODUCT CODE:

Item Description	Item Code	Item Specification
Product	A-ISO	A-Series Isolators have Analog Circuitry with Zero, and Span adjust by Trim pots.
Description	A10ISO	A-10 Series Isolators have a Micro Controller based Circuitry with a keyboard.
Power Supply	DC / AC	Power Supply Voltage 16-36VDC recommended 24 VDC or Voltage 85 to 265 VAC.
	AP24	24 VDC Auxiliary Power Supply for Two Wire Transmitter.
	XX	No External Power Supply is required, this current isolator is loop-powered.
Input / Output Combinations	C# / V# / U# / R# / RT# / TC& / VH / M# / LTCT / HTCT / AMV / AVH / F	C is 4-20mA, V is 0-10VDC, U is Universal, R is Resistance (0-1000 Ohms), RT is 3W-RTD-PT100, RT4 is 4W-RTD-PT100, RTK is 4W-RTD-PT1000, TC& is Thermocouple, here "&" is replaced by J / K / B / S / R / T for TC Type, VH 0-100VDC, M is 0-1000mVDC, LTCT is Low Tension CT, HTCT is High Tension CT, AMV is 0-1000mVAC, AVH is for 0-100VAC, F is for 0-10KHz @ 1 to 10V.
Number of Channels	#	Here "#" is the number of Input or Output Channels. Ex: C1 means 1 Input or Output and C2 means 2 Inputs or Outputs, similarly V1 or V2.
Enclosure	S M	Standard 22.5mm Width. Medium 45mm Width.

**PLEASE CHECK THE DATASHEETS AND APPLICATION NOTES FOR VARIOUS ISOLATION PRODUCTS AND ORDERING INFORMATION.**



FOR MORE DETAILS, PLEASE SEE THE PRESENTATION ON OUR WEBSITE [www.yutechautomation.com](http://www.yutechautomation.com).

### CHANNEL PARTNER:

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