

48 x 96 mm

Features:

- Compact PLC with built-in HMI
- Configurable LED display
- 1 Channel high-speed input (up to 5 kHz)
- RS485 Communication – MODBUS RTU Protocol
- Windows-Based Software for Ladder Programming and HMI Configuration

Technical Specifications

Display Specifications	TWIX-2-230V	TWIX-2-24VDC
Display Type	7 segment LED	
Digits	(4 Red + 4 Red) + 6 Green Digits	
LED bank	4 Red LEDs, 4 Green LEDs	
No. of Keys	5 keys (4 user configurable)	
Digital Input Specifications		
No. of Inputs	6 + 2* (Includes 1 Fast Input Channel)	
Input Type	PNP	
Voltage Range	5 - 30V DC	
Input Current	2 mA @ 12V	
Debounce Time	Programmable 1 - 255 ms (Default: 10 ms)	
Isolation (Power ↔ Input)	Yes	
Isolation (CPU ↔ Input)	NO	
Protection against Polarity Inversion	Yes	
Timer Accuracy	0.1% or 1 ms (Whichever Greater)	
Response Time	Typical 1mSec (Based on ladder scan time) & 100 µSec for fast Input	
Fast Input		
No. of Channels	1 (DI0 & DI1)	
Max Speed	5 kHz	
Operating Mode	Unidirectional / Bidirectional / Quadrature / Dual Uni (5kHz for all) / None	
** = 1 Digital input can be configured as analog input (0-10V)*		
Analog Input specifications		
No. of Channels	6 [2 (TC/RTD), 2 (0-10V DC), 2 (0-20mA DC)]	
Input Type	J, K, T, R, S, C, E, B, N, L, U, W, PLTNL, mVolt (-5 to 65mV), 0-10V, 0-20mA	
Accuracy	0.25% ± 1°C (TC), 0.1% ±1°C (RTD) at 25°C, ±0.25% of FS. ±1 count for AI's	
Resolution	12 Bit	
Conversion Time	100 mSec	
Linearity	0.10%	
Max Non-Destructive Input	AIV= 17V, AII= 31mA	
Channel-to-Channel Isolation	NO	
Reverse Polarity Protection	Yes	
Input Impedance	0-10V - 330KΩ, 0-20mA - 100Ω	
Digital Output Specifications		
No. of Outputs	5 (NO) type Relay, 2 Common Lines	
Contact Rating	5A @ 250V AC (resistive load), 5A @ 30V DC (resistive load)	
Relay Type	SPST	

Isolation (CPU ↔ Output)	Yes
Isolation (Output ↔ Output)	NO
Polarity Inversion Protection	Yes
Response Time	10 ms
Mechanical Life	5 Million Operations
Analog Output Specifications	
No. of Channels	1
Output Range	0-10 V DC / 0-20 mA DC
Resolution	12 Bits
Load Limit	>=1 kΩ / <=500Ω
Digital Resolution	0.0-100.0% = 0-10.000 V DC, 0.0-100.0% = 0-20.000 mA
Conversion Time	10ms
Isolation (CPU ↔ Output)	NO
Isolation (Output ↔ Output)	NO
Output Error @ 25 °C	±0.25% of Full Scale
Linearity	0.10%
Programming & Memory	
Programming Software	Windows-Based Ladder & HMI Configuration
Program Memory	240 KB
Data memory	32 KB
EEPROM	2KB
Upload Memory	Not Available
Max Objects	2000 (Subject to Memory Availability)
Min Scan Time	200 µs
Typical Scan Time	1 ms (Depends on Ladder Logic Complexity)
Functional Features	
Timer Operational Modes	On Delay, Off Delay, Special Timer (Up / Down), Pulse Timer, 1ms Timer*
Counter Modes	Up Counter, Down Counter, Up/Down Counter, Special [Up/Down] Counter
Other Functional Blocks	Totalizer, Rate Totalizer, Analog Input, Scaling, FTC, Hysteresis, PIDT, Rampsoak
Memory Retention	10 years (2 KB)
Real-Time Clock (RTC)	NA
Clock drift	NA

**Limited to 4 Nos*

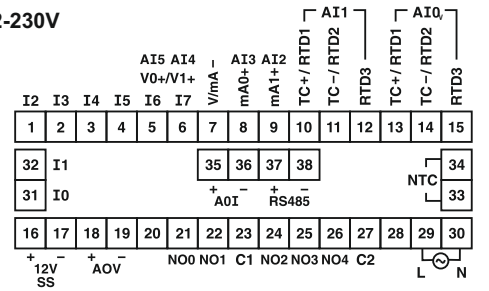
Communication specifications	
Communication Port	RS485 [Slave]
Communication Protocol	MODBUS RTU
Connector	Screw Terminal
Transmission Mode	Half Duplex
Transmission Speed	2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
Data Bits	7 or 8
Parity	None, Odd, Even, Space, Mark
Stop Bits	1 or 2
Environmental Specifications	
Operating Temp.	0°C to 55°C
Storage Temp.	-20°C to 60°C
Humidity	10% to 95% RH (Non-condensing)
Atmosphere	Must be free from Corrosive Gases
IP rating	IP 50 (Front), 1P 20 (Terminal)
Mechanical Specifications	
Weight	240 grams
Mounting	Panel Mountable
Dimensions	50 x 98 x 79

Auxiliary Supply Specifications		
Supply Voltage	With Retention: 180-270V AC @50/60 Hz Without Retention: 90-270V AC @50/60 Hz	18 - 30 VDC
Inrush Current	5A	2.3A
Power Consumption	8VA	8W
Polarity Inversion Protection	Yes	
Isolation (Power ↔ Communication)	Yes	
Source Supply Output	12 VDC, 50 mA	

Note: *A maximum of 25 variables of type VAR_IN_OUT and VAR_OUTPUT (each 32-bit) can be retained when operating at 110V.*

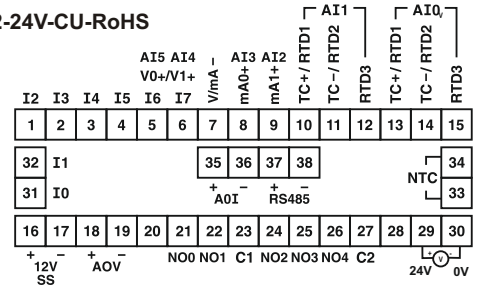
Terminal Connection

TWIX-2-230V



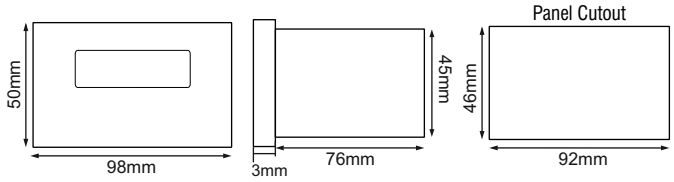
www.selec.com MADE IN INDIA

TWIX-2-24V-CU-RoHS



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Dimensions (in mm)



Ordering information

Product code	Description	Certification
TWIX-2-230V	PLC – 6DI, 5RO, 6AI (2TC/RTD, 2I, 2V/2DI), 1AO(V/I) & 230VAC	CE RoHS

Accessories (To Be Ordered Separately)

Product Code	Description
Power Supplies	
RPS60-24-CE	60W, 24V/2.5A DIN rail mounted power supply in plastic housing - CE Certified
Cables & Communication Accessories	
AC-USB-RS485-02	Protocol Converter Cable – USB to RS485 (2 wire)
For MODBUS Networking	
AC-USB-RS485-03	Protocol Converter Cable – USB to RS485 (RJ25)
ACH-004-CE-RoHS	Expansion Cable – RJ25 to RJ25 (6Pin)
AC-IOEXP-03-CE-RoHS	Communication Adapter
Software - www.selec.com/software	
Selpro	Windows-based software for ladder logic and built-in HMI programming
USB to Serial Driver	USB to Serial cable drivers