TWIX-3-24VDC



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	
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	8 (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	Unidirectional / Bidirectional / Quadrature / Dual Uni (5kHz for all) / None
Fast Input	
No. of Channels	1 (DI0 & DI1)
Max Speed	5 kHz
Operating Mode	Unidirectional / Bidirectional / Quadrature / Dual Uni (5kHz for all) / None
Analog input specifications	
No. of Channels	1 (TC/RTD)
Input Type	J, K, T, R, S, C, E, B, N, L, U, W, PLTNL, mVolt (-5 to 65mV), Pt100
Accuracy	TC: ±0.25% ±1°C, RTD: ±0.1% ±1°C @ 25°C
Resolution	12 Bit
Conversion Time	100 ms
Linearity	0.10%
Max Non-Destructive Input	AIV= 17V, AII=31mA
Channel-to-Channel Isolation	NO
Reverse Polarity Protection	Yes
Input Impedance	TC - 560KΩ, RTD - 750KΩ
Digital Output - Transistor	
No. of Outputs	6
Output Rating	100mA @ 24V DC (Current sourcing output)
Output type	PNP (Source)
Short Circuit Protection	Yes

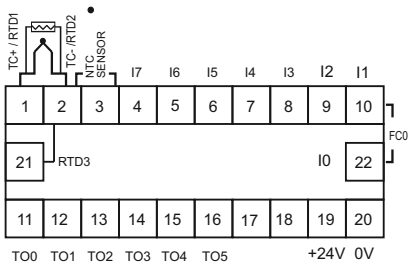
Isolation (CPU ↔ Output)	NO
Isolation (Output ↔ Output)	NO
Polarity Inversion Protection	Yes
Response Time	1 ms (Based on ladder scan time)
Nominal Load	240Ω (likely referring to the typical load resistance)
Breaking Current	110mA (maximum current that can be interrupted)
Programming & Memory	
Programming Software	Windows-Based Ladder & HMI Configuration
Program Memory	112 KB
Data memory	16 KB
EEPROM	2 KB
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

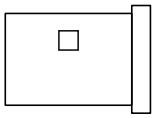
**Limited to 4 Nos*

Communication specifications	
Communication Port	RS485 [Slave]
Communication Protocol	MODBUS RTU
Connector	RJ25 Port
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), IP20 (Terminal)
Mechanical Specifications	
Weight	200 grams
Mounting	Panel Mountable
Dimensions	50 x 98 x 79
Auxiliary Supply Specifications	
Supply Voltage	18 - 30 VDC
Inrush Current	2.3A
Power Consumption	5 W
Polarity Inversion Protection	Yes
Isolation (Power ↔ Communication)	Yes
Source Supply Output	NA

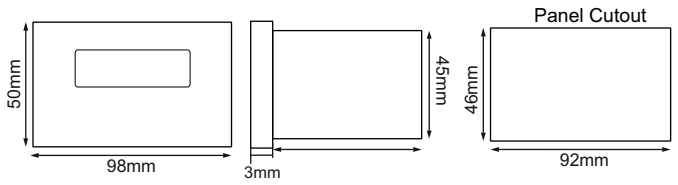
Note: *A maximum of 25 variables of type VAR_IN_OUT and VAR_OUTPUT (each 32-bit) can be retained when operating at 110V.*

Terminal Connection



RS485 for Downloading and Networking	 From Front
RS485 on Side Terminal (Communication Port 1)	

Dimensions (in mm)



Port description

Port 1 (6 Pin Jack)	
Pin	**Description**
1	RS485 Slave +ve
2	NC
3	NC
4	NC
5	NC
6	RS485 Slave -ve

Ordering information

Product code	Description
TWIX-3-24VDC	PLC – 8DI, 6DO, 1AI (TC/RTD) - 24VDC

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-RS485-03	Protocol Converter Cable – USB to RS485 (RJ25)
For MODBUS Networking	
AC-USB-RS485-02	Protocol Converter Cable – USB to RS485 (2 wire)
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