UNIX-1-230V



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	6 Red & 4 Green LED Display
LED bank	2 Red LEDs, 2 Green LEDs
No. of Keys	3 keys (2 user configurable)
Digital Input Specifications	
No. of Inputs	3 + 1* (Includes 1 Fast Input Channel)
Input Type	PNP
Voltage Range	5-30V DC
Input Current	3mA @10V
Debounce Time	Programmable 1-255ms (Default: 10ms)
Isolation (Power ↔ Input)	Yes
Isolation (CPU ↔ Input)	NO
Protection against Polarity Inversion	Yes
Timer Accuracy	0.1% or 1ms (Whichever Greater)
Response Time	Typical 1m sec (Based on ladder scan time) & 100µ sec for fast Input
Fast Input	
No. of Channels	1 (DI0 & DI1)
Max Speed	5 kHz
Operating Mode	Unidirectional / Bidirectional / Quadrature / Dual Uni (5 kHz for all) / None

** 1 Digital input can be configured as analog input (0-10V)*

Analog Input Specifications	
No. of Channels	3 [1 (TC/RTD), 1 (0-10V DC), 1 (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, RTD
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	100m sec
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, 0-10V - 330KΩ, 0-20mA - 100Ω

Digital Output - Relay	
No. of Outputs	2 (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)	Yes
Polarity Inversion Protection	Yes
Response Time	10ms
Mechanical Life	5 Million Operations
Digital Output - Transistor	
No. of Outputs	2
Output Rating	100mA @24V DC (Current sourcing output)
Output type	PNP (Source)
Short Circuit Protection	Yes
Isolation (CPU ↔ Output)	Yes
Isolation (Output ↔ Output)	NO
Polarity Inversion Protection	Yes
Response Time	1ms (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	240 KB
Data Memory	32 KB
EEPROM	2 KB
Upload Memory	Not Available
Max Objects	2000 (Subject to Memory Availability)
Min Scan Time	200µs
Typical Scan Time	1ms (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

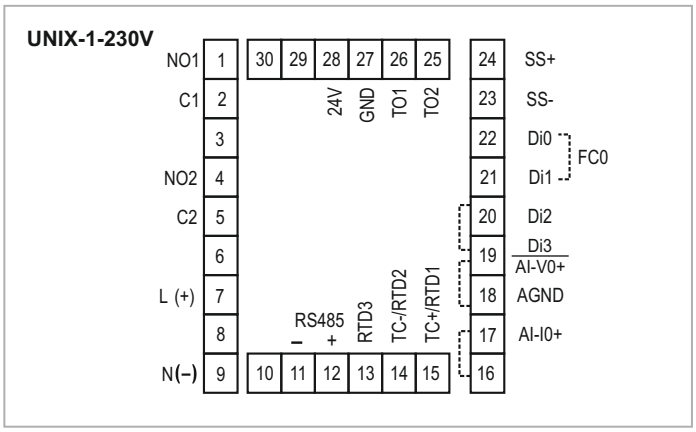
**Limited to 4 Nos*

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), Terminals: IP 20

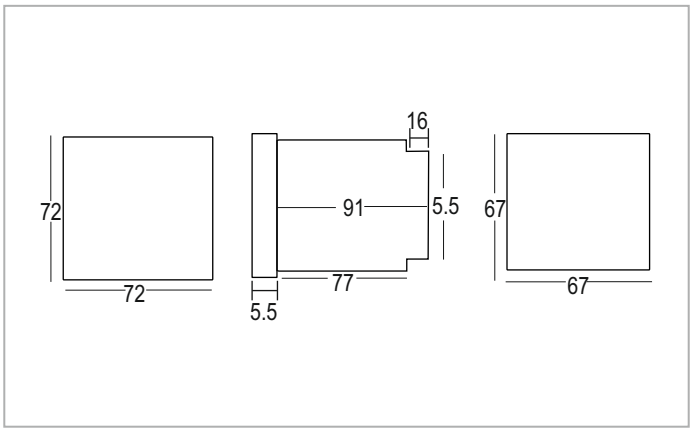
Mechanical Specifications	
Weight	232 grams
Mounting	Panel Mountable
Dimensions in mm (WHD)	72 x 72 x 83
Auxiliary Supply Specifications	
Supply Voltage	With Retention: 180-270V AC @50/60 Hz Without Retention: 90-270V AC @50/60 Hz
Inrush Current	5A
Power Consumption	6VA
Polarity Inversion Protection	Yes
Isolation (Power ↔ Communication)	Yes
Source Supply Output	12V DC, 50mA

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



Dimensions (in mm)



Ordering information

Product code	Description	Certification
UNIX-1-230V	PLC – 3DI, 2RO, 2TO, 3AI (1TC/RTD, 1I, 1V/1DI) & 230VAC	CE RoHS

Accessories (To Be Ordered Separately)

Product Code	Description
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