DIGIX-1



70 x 90 x 66.4mm

Features :

- Compact PLC with built in HMI
- 2 x 8 character LCD
- Real time clock
- RS485 based communication with MODBUS RTU protocol
- Serial printing

Certifications : CE

Technical specifications

Display specifications	
Display	2 x 8 characters LCD (green backlight) / LED indications for inputs and outputs
No. of keys	5 keys (4 - user configurable)*
Input specifications	
Digital input	
No. of digital inputs	8 (including fast channel input)
Input type	PNP
Input voltage range	6 - 30V DC
Response time	Typical 2msec (based on ladder scan time) & 100 µsec for fast input
Isolation	No
Debounce time	0 to 255msec (default 10msec)
Timer accuracy	0.1% or 2msec (whichever is greater)
Fast input	
No. of channels	1
Frequency	5Khz
Output specifications	
Digital output - relay	
Digital outputs	5 (NO type with 2 COM points)
Contact rating	5A @240V AC (resistive) 5A @28V DC (resistive)
Isolation	No
Response time	20msec
Mechanical endurance	5×10^6
Communication specifications	
Communication port	RS485 [Slave] RS485 [Master]
Communication protocol	MODBUS RTU
Connector	RJ25 (slave) screw terminal (master)
Supported expansion*	EXP FLEX 2M
Transmission mode	Half duplex
Transmission speed	9600, 19200, 38400, 57600, 115200 bps
Parity	None, Odd, Even, Mark, Space
Data bits	7 or 8
Stop bits	1 or 2
Settable slave	1 - 255

*Expansion is supported only on PLC having master communication

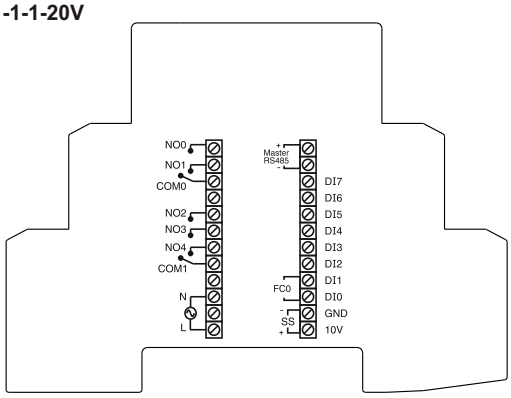
Functional specifications	
Programming method	Windows based software for ladder programming and HMI configuration
Memory	Data memory: 16 kB Code memory: 112 kB EEPROM Memory: 1 kB
Max. no. of objects	2000 (as per memory)
Minimum scan time	200 µsec
Typical scan time	2ms (based on ladder scan time)
Environmental specifications	
Operating temperature	0 °C to 55 °C
Storage temperature	-20 °C to 70 °C
Humidity (Non-condensing)	10% to 95% RH
IP rating	IP50 on display
Mechanical specifications	
Mounting	DIN Rail mount
Weight	Approx 240 gm
Functional features	
Timer operational modes	On delay, Off delay, Pulse, Special [Up/Down] Timer, 1ms Timer*
Timer resolution	1ms (Accurate only for 1 msec Timer block)
Counter	Up counter, Down counter, Up/Down counter, Special [Up/Down] counter
Other blocks	Analog input, FTC, PID, Rampsoak
Memory retention	10 years (1kB)
RTC	Yes (available in DIGIX-1-1-1-230V)
RTC Accuracy	8 Minutes / Year & the maximum error is 14 Minutes / Year
Clock drift	Max 4sec / day
*Usage limited to only 4 nos	
Auxiliary supply specification	
Supply voltage	90 to 270V AC 50/60 Hz., 18 to 30V DC
Power consumption	6W max
Source	10V, 50mA in 230V AC model only
VAR IN_OUT & VAR OUTPUT types variables maximum retention 25 variables only each of 32 bit @ 110V, @ 24VDC	

Accessories (To be ordered separately)

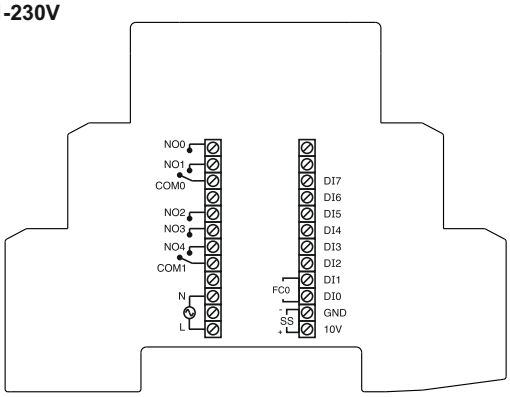
Downloading cable	AC-USB-RS485-03
Power supplies	RPS60-24-CE-RoHS
Relay modules	
1) RLYMD-1-S4-1CO-24VDC	4 Channel 1 change over relay module
2) RLYMD-1-S4-2CO-24VDC	4 Channel 2 change over relay module
3) RLYMD-2-S8-1CO-24VDC	8 Channel 1 change over relay module
4) RLYMD-2-S8-2CO-24VDC	8 Channel 2 change over relay module
5) ERLYMD-2-1-S8-1CO-24VDC	8 Channel 1 change over communication based relay module
Networking	ACH-004 (RJ25 Cable)
	AC-IOEXP-03 (Expansion adaptor)
	AC-USB-RS485-02 (USB to RS485 Cable)

Terminal connection

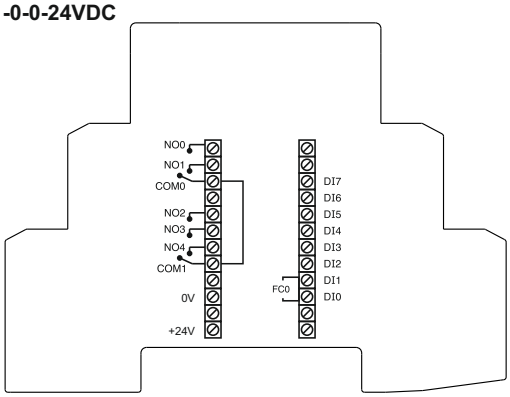
DIGIX-1-1-1-20V



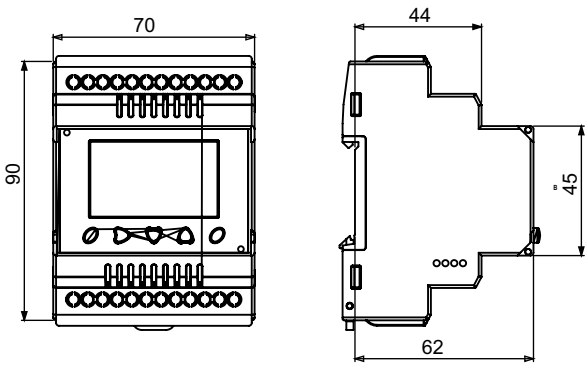
DIGIX-1-230V



DIGIX-1-0-0-24VDC



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	Certification
DIGIX-1-1-1-230V	PLC – 8DI, 5RO & 230VAC –RTC and modbus expansion	CE RoHS
DIGIX-1-230V	PLC – 8DI, 5RO- 230VAC	CE RoHS
DIGIX-1-0-0-24VDC	PLC – 8DI, 5RO- 24VDC	CE RoHS in process