

Smart Automation Solutions

**Compact, Single Box
Powerful and Expandable
PLC + HMI Solutions**



SELPRO

Windows based software
for ladder programming

NEW



MM3030



MM3032



MM3050

Expandable PLCs with fast IO Expansion

Features

- Compact fixed configuration PLC with inbuilt HMI (Except MM3050)
- User friendly Windows based software for ladder programming and HMI configuration
- Special port for IO expansion (Except MM3032)

Model (Bezel Size)	MM3030-1 (96x96)	MM3030-2 (96x96)	MM3030-3 (96x96)	MM3032 (96x96)	MM3050 (96x96)
Display	LCD (Backlight) 4 x16	LCD (Backlight) 4 x16	LCD (Backlight) 4 x16	LCD (Backlight) 2 x 16	LED for indication
No of Keys	15	15	15	10	————
Digital Input	10	10	8	8	8
Input Type (digital)	PNP	PNP	PNP	PNP	PNP
Input Voltage Range	11 to 30 V DC	11 to 30 V DC	5 to 16 V DC	5 to 16 V DC	5 to 16 V DC
Analog Input	2	2	2	2	————
Input Type (analog)	Voltage (0-10V), Current (0-20mA) (Selectable via jumper)				————
Fast Counter Input	FC0- I0 & I1- Rate/Totalizer, FC1- I2 & I3- Rate/Totalizer, FC2- I4 & I5- Totalizer				
Operating Modes	Unidirectional / Bidirectional / Quadrature modes				
Maximum Count	10 Digits				
Communication Interface	RS232 (Slave), IO Expansion port	RS485 (Slave), RS485(Master)/ IO Expansion port	RS232 (Slave), IO Expansion port	RS232 (Slave)	RS232 (Slave), IO Expansion port
Communication Protocol	MODBUS RTU:RS232, Proprietary: IO630 expansion	MODBUS RTU: RS485 / IO610 expansion* Proprietary: IO630 expansion	MODBUS RTU:RS485, Proprietary: IO630 expansion	MODBUS RTU:RS232	MODBUS RTU:RS232, Proprietary: IO630 expansion
Program	Windows based software for ladder program & HMI configuration				
Minimum Scan Time	200µsec				
Memory	Data memory- 16k, Code memory- 351k, Upload memory 96k			Data memory- 3k, Code memory- 95k	
Function Blocks	Timer, Counter, PID with autotune, Totalizer, Rate totalizer, PWM Output, Pulse Output		Timer, Counter, PID with autotune, Totalizer, Rate totalizer,		
Real-time clock (RTC)	Yes		No		
Digital Output	8 (Transistorized)*		6 (Relay, 3A resistive@270V)		
Mounting	Panel & Din rail				
Supply Voltage	20 to 30V DC		90 to 270V AC/DC		

* For further details please refer product datasheet.

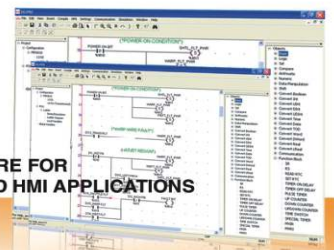
SELPRO Software

User friendly WINDOWS based SELPRO software for configuration as per IEC61131-3

- Edit, On-line, Off-line Simulation Modes
- Built-In interface for configuration of HMI
- Selective 8, 16, 32 bit data type support for variables
- Selective retention of variable
- Provision for line comments and labels for all objects
- Auto-Save after preset time, auto-Read file at start up
- Password protection for ladder files
- Editable Passwords for download, upload and project
- Exhaustive function and function block library
- Auto declared variables to represent physical IO of selected configuration
- Project upload from target

WINDOWS BASED SOFTWARE FOR CONFIGURING LADDER AND HMI APPLICATIONS

- Facility to set debounce time for physical inputs
- Hardware Compatibility- Facility to download applications into the previous versions of bootloader by selecting respective hardware version
- User configurable keys
- Multiple Global Tasks and Power on Tasks can be defined
- Multiple page sequence can be defined

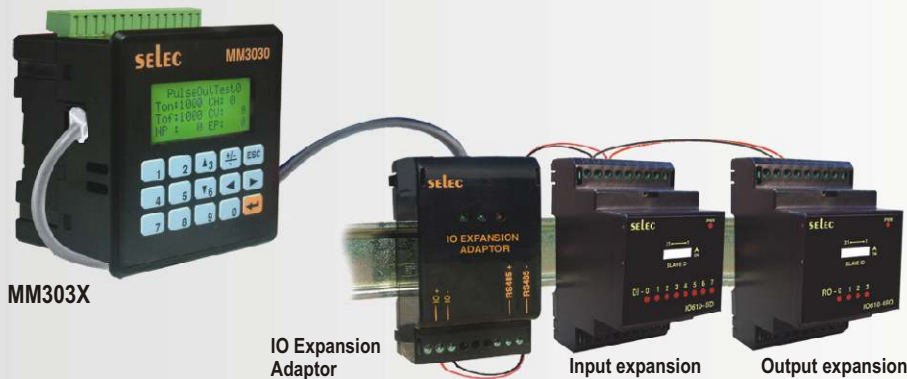


Communication & Networking of MM303X series PLCs

MODBUS (RTU)



Fast IO Expansion



IO Expansion Module

Features

- Expansion up to 31 modules per controller possible.
- MODBUS RTU for IO610 and Proprietary Protocol for IO630 used for communication.
- Front end software SELPRO for configuring IO610/630 series expansion module.



IO Expansion Module	IO610/630-8DI	IO610/630-4RO	IO610/630-4TO	IO610/630-2AI-TCR	IO610/630-2AI-VI	IO610/630-2AO
No of Input/Output	8	4	4	2	2	2
Type	Digital input	Relay output	Transistor output	Analog input (Thermocouple /RTD)	Analog input (Voltage/Current)	Analog output (Voltage/Current)
Power Supply	100mA@24VDC					
Isolation	2 kV optical					
Mounting	Din rail mounting					
Protocol	MODBUS RTU for IO610 (RS485) PROPRIETARY PROTOCOL for IO630					

Accessories



8 RELAY OUTPUT MODULE

1 C/O, 2 C/O versions
Contact rating: 10 A resistive/1 A inductive
Min switch time: 10 ms
Supply Voltage: 24 V DC



RS232-RS485 CONVERTER

Transmission speed: 9600m to 115200 BPS
Transmission mode: 2 wire (half duplex)
Isolation: 2kV
Supply Voltage: 90-270V AC/ DC



Compact PLCs with flexible card selection



MM3010

Features

- Compact PLC with inbuilt HMI
- Easy configuration via card selection

Model (Bezel Size)	MM3010 (96x96)
Display	LCD (backlight) 4 line x 16 character font size 5 x 7
No of Keys	18 (10 numeric keys)
Digital Input	8 / 13 / 19 + 1 Quad
Input Type (digital)	PNP
Input Voltage Range	11 - 28V DC (abs. max.: 30V DC)
Analog Input	2 / 4 / 6
Input Type (analog)	Thermocouple, RTD, 0-20 mA, 0-10V
Operating Modes / Frequency	Bidirectional, Unidirectional: 7.5 kHz Quadrature: 2.5 kHz
Maximum Count	10 digits
Communication	RS485: Serial communication (Master) RS232: For downloading ladder program (Slave)
Communication Protocol	MODBUS RTU : IO610 expansion
Minimum Scan Time	200 µsec
Memory	Data memory: 16k ; Code memory: 351k; Upload memory 96k
Function Blocks	Timer, Counter, PID with Autotune, Communication, Analog
Real-time clock (RTC)	Yes
Digital Output	4 / 8 / 11 / 14
Analog Output	2 (factory set) 0-20 mA / 0-10V
Mounting	Panel Mounting
Supply	90 to 270V AC/DC (optional: 24V DC)



MM1010

Features

- Compact PLC with LED based HMI

Low cost solution for small applications

Model (Bezel Size)	MM1010-1 (48x96)	MM1010-2 (48x96)	MM1012 (48x96)	MM1013 (48x96)	MM1015 (48x96)
Display	7 segment LED, 3 digit + (4+4) digit				
No of Keys	5				
Digital Input	8		6	8	10
Input Type (digital)	PNP				
Input Voltage Range	11 - 28V DC (abs. max.: 30V DC)				
Analog Input	1		2	——	
Input Type (analog)	TC / RTD	0-10 V / 0-20 mA	TC / RTD / 0-10V 0-20 mA (User selectable)	——	
Communication	RS485 (slave) via MODBUS RTU				
Minimum Scan Time	200 µsec				
Memory	Data memory:16k, Code memory: 223k				
Function Blocks	Timer / Counter / PID with Autotune / Analog Input			Timer / Counter	
Digital Output	5 Relay		4 Relay	5 Relay	6 Relay
Analog Output	——		1 (0-10V/0-20mA)	——	
Mounting	Panel Mounting				
Supply	90 to 270V AC/DC (optional: 24V DC)				