



### Expansion Module

#### Description

I/O can be expanded up to 31 expansion modules per controller.

Item	Description	
1	24V DC power supply	
2	Expansion port - IO to PLC	
3	DIP switch - slave ID (1 to 31)	
4	LED - Power	
No. of Analog Inputs (V/I)		2
Analog Input type		Voltage / Current
Resolution		14 BIT
Linearity Error		0.1%
Conversion time		100 ms
Required power		35mA @ 24V DC
	IO 610	IO 630
Response time	35ms	200usec
Expansion port conn.	RS485 + -	I/O EXP + -
Protocol	MODBUS RTU	Proprietary
Baudrate	19k2	500kbps
Mounting	DIN rail mounting	
Temperature	Operating: 0 To 50°C Storage: 20 To 50°C	
Humidity	95%	
Weight	120 gms	
Dimensions	52.5 mm x 90 mm x 73 mm	

### HARDWARE CONFIGURATION OF EXPANSION MODULES

Before configuration of the expansion module, slave ID address on the 5 way DIP switch as follows



Note: Do not assign same slave ID to two or more different expansion modules connected to the PLC

### SOFTWARE CONFIGURATION OF EXPANSION MODULES

IO 610 series :-

- 610 series IO modules can be interfaced with any master that supports Modbus protocol.
- Please see IO 610 series application note.

IO 630 series :-

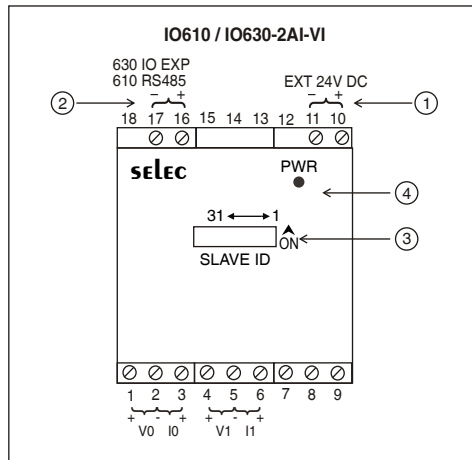
- 630 series IO modules can be operated on proprietary protocol. These can be interfaced with Selec PLC series.
- Please see IO 630 series application note.

#### ⚠ CAUTION

The equipment in its installed state must not come in close proximity to any heating sources, caustic vapors, oils, steam, or other unwanted process byproducts.

#### EMC Guidelines:

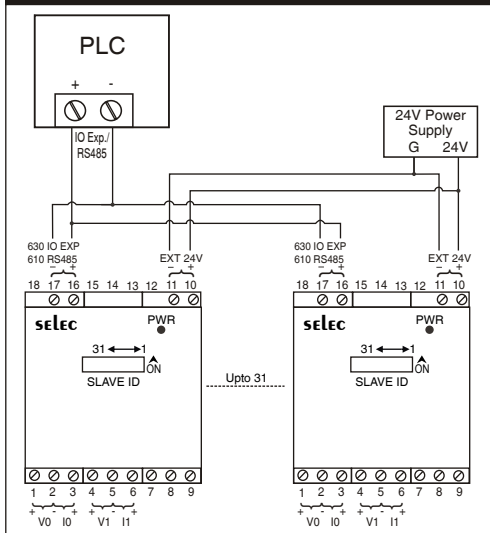
1. Use proper input power cables with shortest connections and twisted type.
2. Layout of connecting cables shall be away from any internal EMI source.



### MODBUS ADDRESS TABLE:

Parameter	Type	Modbus Register A10	Modbus Register A11	Range	Description
Channel status	Coil Status	00000	00001	0-1	0 - Channel disable 1 - Channel enable
	Holding Register	40010	40012	0-1	0 - Channel disable 1 - Channel enable
Sensor Type	Holding Register	40011	40013	15-16	15 - Voltage 16 - Current
PV	Input Register	30010	30012	-1999 to 20000	0 - 10V: 0 - 10000 value 0 - 20mA: 0 - 20000 value
PV status	Input Register	30011	30013	0-2	0 - Valid PV range (0 - 120%) 1 - Over range 2 - Under range

### TYPICAL WIRING DIAGRAM



### MAINTENANCE

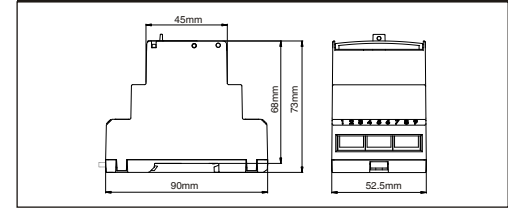
1. To avoid blockage of ventilation holes, clean the equipment regularly using a soft cloth.
2. Do not use Isopropyl alcohol or any other organic solvents for cleaning.

I/O Expansion modules can be mounted using 35 x 52.5 mm DIN rails

Before mounting the module on DIN rail, close DIN rail latches. Press the DIN rail mounting area of the module against the DIN rail. The latches will momentarily open and lock in to place

Figure shows dimension DIN rail mounting of expansion modules

### DIMENSIONS (All dimensions in mm)



(Specifications subject to change as development is a continuous process).

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