

Presentation

I/O expansion modules for Modicon M171 and M172 logic controllers

Two I/O expansion modules are available, dedicated to M171 performance logic controllers, and also compatible with M172 logic controllers.

- They are used to increase the number of I/O:
 - up to 351 on M171 performance logic controllers
 - up to 366 on M172 logic controllers
- Expanded I/O types are digital and analog
- They are connected via the CAN expansion bus on M171 performance and M172 logic controllers.

Compatibility between logic controllers and I/O expansion modules

Logic controller type	Reference	Compatible I/O expansion module (reference)
M171 performance	TM171PBM27R, TM171PDM27R, TM171PDM27S, TM171PFE03, TM171PFE03HR	TM171EP14R, TM171EP27R
M172	TM172OBM18R, TM172ODM18R, TM172PBG07R, TM172PDG07R, TM172PBG18R, TM172PDG18R, TM172PDG18S, TM172PBG28R, TM172PDG28R, TM172PDG28S, TM172PBG42R, TM172PDG42R, TM172PDG42S	

Description

35 mm/1.38 in. rail mounting I/O expansion modules

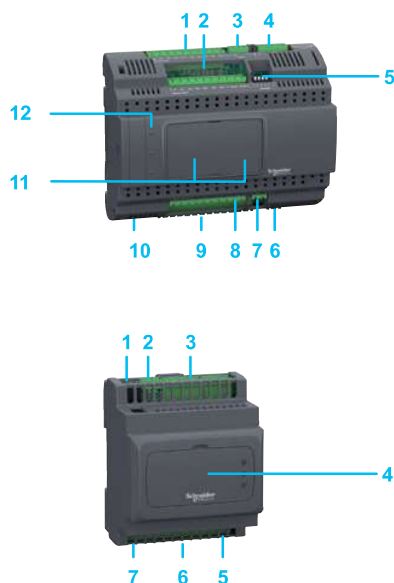
TM171EP27R expansion module (1)

- 1 Connector for removable terminal block for digital inputs
- 2 Connector for removable terminal block for analog inputs
- 3 Connector for removable terminal block for Modbus SL
- 4 Connector for removable terminal block for CAN expansion bus
- 5 4-position DIP switches for address selection
- 6 Connector for removable terminal block for power supply (24 V $\approx$, 48 V $\cdots$)
- 7 Connector for removable terminal block for fast digital inputs
- 8 Connector for removable terminal block for digital outputs
- 9 Connector for removable terminal block for analog outputs
- 10 Clip for 35 mm/1.38 in. rail mounting
- 11 6- and 10-position DIP switches for address selection
- 12 3 status LEDs

TM171EP14R expansion module (1)

- 1 4-position DIP switches
- 2 Connector for removable terminal block for CAN expansion bus
- 3 Removable terminal block for digital outputs
- 4 Behind the removable protective cover: Service port (TTL)
- 5 Connector for low voltage I/O
- 6 Clip for 35 mm/1.38 in. rail mounting
- 7 Connector for removable terminal block for power supply (24 V $\approx$)

(1) Removable terminal blocks to be ordered separately, see page 31





TM171EP14R



TM171EP27R



TM171ASCTB14

TM171ASCTB27

References

I/O expansion modules for Modicon M171 and M172 performance logic controllers

35 mm/1.38 in. rail mounting

No. of I/O	Number and type of channels		Compatibility with logic controller	Embedded communication connection	Reference	Weight kg/lb
	Inputs	Outputs				
14	4 digital inputs: 4 x 24 V ~ or 24 V $\overline{\sim}$ (1) 4 analog inputs: (configurable in pairs) 4 NTC, or PT1000, or PTC, or 4-20 mA, or 0-5 V, or 0-10 V, or digital inputs	4 digital outputs: ■ 1 SPDT (5 A, 230 V ~) with independent common ■ 3 SPST (3 A, 230 V ~) with independent common 2 analog outputs: ■ 2 x 0-10 V (1)	TM171P●●●● TM172●●●●	■ 1 CAN expansion bus	TM171EP14R	0.190/ 0.420
27	9 digital inputs (8 + 1): ■ 2 groups of 4 digital inputs, 24 V ~ or 48 V $\overline{\sim}$ ■ 1 fast digital input or high speed counter, volt-free 6 analog inputs: ■ 2 NTC or digital inputs ■ 4 NTC, or 4-20 mA, or 0-10 V, or digital inputs	7 digital outputs: ■ 2 SPDT (8 A, 230 V ~) with independent common ■ 5 SPST (5 A, 230 V ~) with independent common 5 analog outputs: ■ 5 x 0-10 V, or 4-20 mA	TM171P●●●●, TM172●●●●	■ 1 CAN expansion bus	TM171EP27R	0.385/ 0.850

Accessories for I/O expansion modules to be ordered separately

Designation	Description	Unit reference	Weight kg/lb
Screw terminal blocks (inputs, outputs, and communication bus)	14 I/O – For TM171EP14R	TM171ASCTB14	0.050/ 0.110
	27 I/O – For TM171EP27R	TM171ASCTB27	0.100/ 0.220

(1) On the same channel: 2 digital inputs or 2 analog outputs (depending on the configuration).

(2) Minimum set for operating controllers.