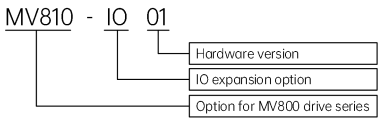
MEGMEET

MV800 IO Expansion Option User Manual

Bom code: R33011123
Version: V01

1 Product Information

1.1 Designation rule



1.2 Functions and specifications

MV810-IO01 option provides IO expansions for the MV800 drive series. Its functions and specifications are described below:

1.2.1 Function features

(1) Three DI expansions
(2) Two relay output expansions
(3) Provides external 24VDC power supply
(4) Eurostyle pluggable terminal blocks

1.2.2 Technical specifications

Product	Terminal	Specifications
Simple IO expansion option	DI9–DI11	Multi-function input terminals set by P41.00–P41.02; Support NPN/PNP input, selected by P41.03, active level: 9 to 30 V; Power supplied by the option's terminal ($24V_{DC}$) or external 24 V DC (see wiring details in 4.2.2.4 of the full edition of the drive's user manual); Support filtering and switch-on/off delay.
	RO2–RO3	Multi-function output terminals set by P41.13–P41.14; RO2 contains one TA2/TB2 (normally closed), one TA2/TC2 (normally open); contact capacity: 250 V AC/3 A, 30 V DC/1 A; RO3 contains one TA3/TC3 (normally open); contact capacity: 250 V AC/3 A, 30 V DC/1 A; Support output polarity and switch-on/off delay (see wiring details in 4.2.2.6 of the full edition of the drive's user manual).
	24 V, GND	Power output: +24 V DC, ±5%, <200 mA

1.3 Terminal description

1.3.1 Layout

The following figure shows the front and back views of MV810-IO01.

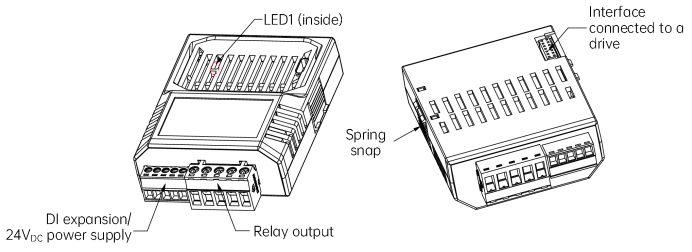


Fig. 1

1.3.2 LED indicator description

MV810-IO01 has an LED indicator inside (see Fig. 1). See the LED description below:

LED	Status	Description	Action
LED1 (red)	Steady on	Normal power supply for the IO option	No need for actions
	Off	No power supply for the IO option	Check whether the IO option is connected to the drive properly

1.3.3 Function codes

Table field	Description
Default value	It is the factory setting value of the function code.
Property	○: indicates the function code can be modified in the running status. ×: indicates the function code can be modified in the stop status. *: indicates the function code is read-only and cannot be modified.

Function code	Name	Description	Default value	Property
P40.00	Option type	0: No communication option 1: PROFINET 2: EtherCAT 3: IO option	0	×
P40.01	Detection time for options	0.0 to 10.0 s No timeout detection when set to 0	0.0 s	○
P41.00	DI9 function selection	0: No function 1: Forward RUN 2: Reverse RUN 3: Forward jog 4: Reverse jog 5: Three-wire control 6: Multi-reference terminal 1 7: Multi-reference terminal 2 8: Multi-reference terminal 3 9: Multi-reference terminal 4 10: Acceleration/Deceleration time terminal 1 11: Acceleration/Deceleration time terminal 2 12: Reserved 13: Frequency up/down setting clear 14: Frequency increase command (UP) 15: Frequency decrease command (DN) 16: External fault NO input 17: External fault NC input 18–72: Refer to the full edition of the drive's user manual	0	○
P41.01	DI10 function selection		0	○
P41.02	DI11 function selection		0	○
P41.03	Terminal open-circuit voltage	0: Digital terminal open-circuit voltage 0 V 1: Digital terminal open-circuit voltage 24 V	1	○
P41.04	DI9 to DI11 active mode	Ones: 0: DI9 positive logic active 1: DI9 negative logic active Tens: 0: DI10 positive logic active 1: DI10 negative logic active Hundreds: 0: DI11 positive logic active 1: DI11 negative logic active Thousands: Reserved	0	○
P41.06	DI filter time	Used to set the filter time for DI terminal sampling. It is recommended to increase the parameter when there is strong interference to avoid misoperation. Range: 0.000 to 1.000 s	0.10 s	○
P41.07	DI9 switch-on delay time	Used to set the delay time for level jump upon switch-on/off of digital input terminals. Range: 0.0 to 600.0 s	0.0 s	○
P41.08	DI9 switch-off delay time		0.0 s	○
P41.09	DI10 switch-on delay time		0.0 s	○
P41.10	DI10 switch-off delay time		0.0 s	○
P41.11	DI11 switch-on delay time		0.0 s	○
P41.12	DI11 switch-off delay time		0.0 s	○
P41.13	RO2 output selection	0: Disabled 1: AC drive in running 2: Forward running	0	○
P41.14	RO3 output		0	○

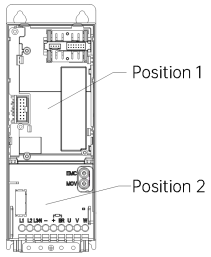
Function code	Name	Description	Default value	Property
	selection	3: Reverse running 4: Frequency reach signal (FAR) 5: Frequency-level detection signal (FDT1) 6: Frequency-level detection signal (FDT2) 7: Overload detection signal (OL) 8: Lockout for undervoltage (LU) 9: External fault stop (EXT) 10: Frequency upper limit (FHL) 11: Frequency lower limit (FLL) 12: Zero-speed running 13: Simple PLC stage completion 14: PLC cycle completion 15: Current running duration reach 16: Accumulated running duration reach 17: AC drive ready to run (RDY) 18: AC drive fault 19–47: Refer to the full edition of the drive's user manual		
P41.15	Output terminal polarity selection	Ones: 0: RO2 positive logic active 1: RO2 negative logic active Tens: 0: RO3 positive logic active 1: RO3 negative logic active Hundreds: Reserved Thousands: Reserved	0	○
P41.16	RO2 switch-on delay time	Used to set the delay time for level jump upon switch-on/off of output terminals. Range: 0.0 to 600.0 s	0.0 s	○
P41.17	RO2 switch-off delay time		0.0 s	○
P41.18	RO3 switch-on delay time		0.0 s	○
P41.19	RO3 switch-off delay time		0.0 s	○
P50.00	Option type status view	0: No communication option 1: PROFINET 2: EtherCAT 3: IO option	0	*
P50.03	DI status of the IO option	0 to 0x111 0: Disabled 1: Enabled	0	*
P50.04	DO status of the IO option	0 to 0x11 0: Disabled 1: Enabled	0	*

2 Installation

The installation position, interface and steps of MV810-IO01 are described below:

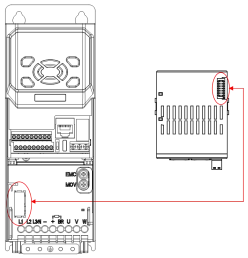
2.1 Installation position

MV800 drive series provides two positions for installation of accessory cards and options: position 1 and position 2 in the right figure (taking enclosure B as an example, similar for other enclosures), where position 1 is used to install various PG cards and position 2 is used to install PN options, ECAT options, IO options and so on.



2.2 Installation interface

The electrical interface of the MV810 IO option is connected to the drive as shown in the right figure.



2.3 Installation steps

Installation method: front side mounting of IO option

(1) When the drive is powered off, press the granulated part on the middle-upper of the lower cover, slide it down firmly to take down the cover, as shown in Fig. 2-a.

(2) Use a straight screwdriver to pry open the dustproof cap, as shown in Fig. 2-b.

(3) Install the IO option: hold the expansion box (a bus card inside) upwards (indicators up), then align the expansion box with the electrical bus interface of the installation position 2, and press down horizontally to buckle the spring snap of the expansion box into the groove at the lower part of the drive, as shown in Fig. 2-c and Fig. 2-d.

(4) The bus card is successfully installed, as shown in Fig. 2-e.

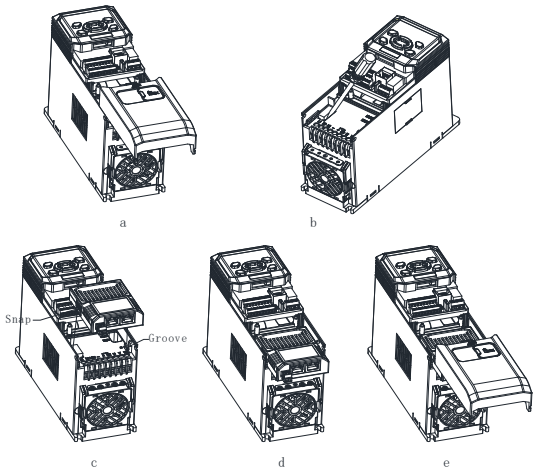


Fig. 2 IO option installation steps

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MEGMEET

Warranty bill of communication option

Customer company:	
Detailed address:	
Contact:	Tel:
Option model:	
Option No:	
Purchase date:	
Service unit:	
Contact:	Tel:
Maintenance date:	

MEGMEET Certificate	Checker:_____ Manufacturing date:_____ The product has been tested in line with design standards and approved for leaving the factory.