

9.2.4 Extension PC Card (MD38PC1)

■ Overview

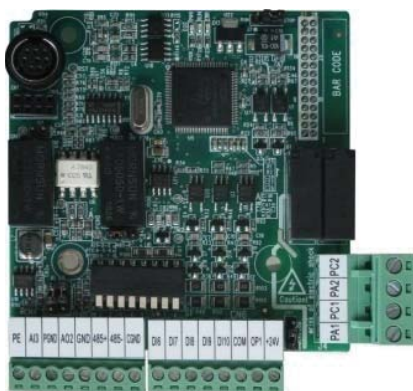
The MD38PC1 card is designed with the PLC function, which enables the MD500 drive to have the PLC (user programmable) function. The card can read special variables of the drive besides the standard function codes and is more advantageous than combination of PLC and AC drive.

MD38PC1 is compatible with Inovance's PLC programming environment. In the condition that the program capacity and peripheral devices do not exceed the range of MD38PC1, programs of the user can be download to the MD38PC1 without modification.

The MD38PC1 has the following I/O terminals and communication interface.













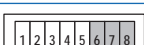
Item	Specification	Description
Input terminals	Five digital input (DI) terminals	Supports 9 to 30 V dual-polarity input.
	One analog input (AI) terminal that supports voltage input	Supports -10 to 10 V input.
Output terminals	One relay output terminal	250 VAC, 3 A; 30 VDC, 1 A
	One analog output (AO) terminal	0 to 10 V, 0 to 20 mA
Communication	RS485 communication interface	Isolation input

■ Physical Appearance



Type	Terminal	Terminal Name	Function Description
Analog input	AI3-PGND	Analog input 3	Optically-coupled isolation input, supporting differential voltage input, current input and temperature detection resistance input Input voltage range: -10 to 10 VDC Input current range: -20 to 20 mA Connect the PT100 or PT1000 temperature sensor Input mode determined by DIP switch S1, multiple functions not supported simultaneously
Digital inputs	DI6-OP1	Digital input 6	Optically-coupled isolation compatible with dual-polarity inputs Input resistance: 2.4 kΩ Voltage range for inputs: 9 to 30 V
	DI7-OP1	Digital input 7	
	DI8-OP1	Digital input 8	
	DI9-OP1	Digital input 9	
	DI10-OP1	Digital input 10	
Analog output	AO2-GND	Analog output 2	Output voltage range: 0 to 10 V Output current range: 0 to 20 mA
Relay outputs (RELAY x 2)	PA1- PC1	Relay 1 NO terminal	Contact driving capacity: 250 VAC, 3 A, Cos f = 0.4 30 VDC, 1 A
	PA2- PC2	Relay 2 NO terminal	
RS485 communication	485+/485-	RS485 Communication interface	Modbus-RTU communication input and output terminal, isolated input
	CGND	RS485 communication isolation power ground	
CAN communication	CN1	User program downloading	User program downloading port (9-pin mini port)

The following table describes the jumpers of the MD38IO1.

Jumper	Description	Meaning	Setting
J2	AI3 input selection: voltage or current	Voltage	
		Current	
J3	AO2 output selection: voltage or current	Voltage	
		Current	
J1	RS485 terminal resistor matching selection	Matching the terminal resistor	
		Not matching the terminal resistor	
J7	Run/Stop selection	Run	
		Stop	
J8	OP1 connecting mode selection	If DI connected in SINK mode, OP1 connected to +24V	
		If DI connected in SOURCE mode, OP1 connected to COM	
S1	AI3, PT100, PT1000 selection	AI3: 1, 2, 3 set to ON	
		PT1000: 4, 5, 6 set to ON	
		PT100: 6, 7, 8 set to ON	

Note

The setting of the jumpers takes the top view with the main terminals at the bottom of the card as the visual angle. The jumpers are silk-screened on the card.

■ Terminal Wiring

For wiring of DI, DO, AI and AO terminals, see section 3.3 Control Circuit Wiring.

For the Modbus communication, see section C.6.2 Modbus communication protocol.

If you purchase the MD38PC1 card, the related user manual will be delivered together with the product. See the user manual for details.