

MC Series *e-con* Mounted Branch Board

User's Guide



Thank you for purchasing product of SAMWON ACT.
Please check model of product that you purchase first, and read this manual prior to use it.

Caution for safety

- Warning** Case that results in serious damage in human body or equipment, and fire if user handles this equipment wrongly
- Caution** Case that results in slight damage in human body or equipment, and fire if user handles this equipment wrongly

Warning

- Do not open the cover while the power is on or during operation.
It may cause electric shock.
- Be sure to shut off the power supply from the outside before mounting and wiring.
It is cause fire or electric shock.
- Do not use if the cable sheath is damaged.
It may cause electric shock.
- When machining and wiring the mounting hole, do not allow foreign matter such as dust or wire covering to enter the connection terminal.
Failure to do so may result in damage to the unit, heat, or ignition.

* The connection cable for PLC of various makers is provided by us. Please refer to the catalogue or contact Head or branch office if you need more detail models and specifications.

Caution

- Use within the specified rated voltage and rated current range.
This may result in fire or damage to the product.
- Do not use outdoors.
Electric shock and product life may be shortened.
- Use within the specified temperature range. (-10°C ~ +50°C)
Damage to the outer case may occur.
- Do not use water or organic solvents for cleaning.
It may cause electric shock and damage to the product.

Use caution

- Use in the specified temperature and humidity.
- Please make sure to check the internal wiring diagram of the terminal block and the arrangement of the controller PIN (terminal) when making the connection cable between the controller (PLC etc.).
- Input power should be isolated and supplied with limited voltage/current or Class 2, SELV power supply.
- Use AWG 22 ~ 16 (1.25mm² / MAX) for the power line, and check the crimp terminal after checking the "Applicable crimp terminal" specification.
- The device is suitable for use only within an acceptable enclosure which has mechanical rigidity.
- Can be used under the following environmental conditions.
①Indoor ②Pollution Degree 2 ③Altitude 2,000m or less ④Installation Category II

* The above specifications are subject to change without notice.
* Please contact HQ or branch office where you purchased product for A/S of this product or technique.



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104beon-gil, Gwangmyeong-si, Gyeonggi-do
TEL : 02)837-2230 FAX : 02)837-2226

NO.202405-OM-ENG-MC-UL

Model/Specification

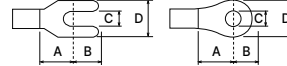
Model		MC-08NL-3 MC-08PL-3 MC-08ND-3 MC-08PD-3	MC-16NL-3 MC-16PL-3 MC-16ND-3 MC-16PD-3	MC-16NL-4B MC-16PL-4B MC-16ND-4B MC-16PD-4B	MC-32NL-3 MC-32PL-3 MC-32ND-3 MC-32PD-3
Number of I/O points		8 points	16 points		32 points
Rated voltage		12 - 24VDC ≡, Class 2			
Rated current		1A			
Applicable connector		HIF3BA Series or XG4A Series			
Suitable wire	Terminal side	AWG 22 - 16 (Use copper conductor only)			
	e-con side	AWG 28 - 20 (Use copper conductor only)			
Insulation resistance		100MΩ or more (500VDC ≡)			
Withstand voltage		500VAC ≡ 1min			
Terminal screw		M3.5 X 7L			
Screw torque		7 - 8kgf·cm (0.68 - 0.78 N·m)			
Environment resistant ^{Note 1)}	Ambient temperature	-10°C - +50°C			
	Ambient humidity	35 - 85%RH			
Material	Case	Modified PPO			
	Board	Epoxy 1.6t			
Certification		CE, UL			
Weight ^{Note 2)}		About 90g (About 58g)	About 112g (About 90g)		About 170g (About 142g)

Note 1) The conditions of use are that they are not freezing or condensing.
Note 2) It is weight in packed condition, parenthesized is only the product weight.

Applicable crimp terminal

(Unit : mm)

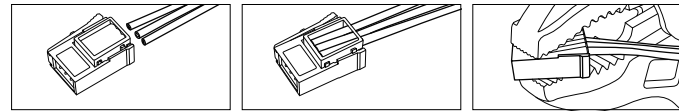
	A	B	C	D	Suitable wire
Y type terminal	4.0 or more	4.7 or less	3.5 or more	8.0 or less	AWG 22~16 (0.30~1.25mm ²)
O type terminal	4.0 or more	4.7 or less	3.5 or more	8.0 or less	



e-con plug connector applicable specification (Separate product)

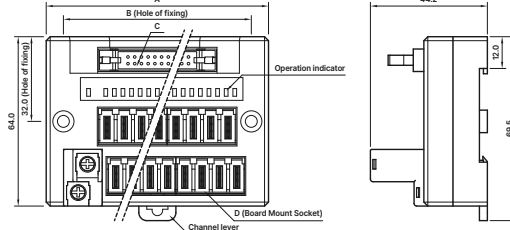
Body color	Cover color	Plug connector product no. (3Pin)	Plug connector product no. (4Pin)	AWG No.	Wire cross-section mm SQ.	Wire insulation outer-diameter mm
Gray	Violet	EC-3P68VT	EC-4P68VT	26 - 28	0.08 - 0.13mm ²	0.6 - 0.8
	Red	EC-3P68RD	EC-4P68RD			0.8 - 1.0
Blakb	Violet	EC-3P46VT	EC-4P46VT	24 - 26	0.13 - 0.21mm ²	0.6 - 0.8
	Red	EC-3P46RD	EC-4P46RD			0.8 - 1.0
	Yellow	EC-3P46YE	EC-4P46YE			1.0 - 1.2
	Orange	EC-3P46OG	EC-4P46OG	20 - 22	0.32 - 0.5mm ²	1.2 - 1.6
	Green	EC-3P02GN	EC-4P02GN			1.0 - 1.2
	Blue	EC-3P02BU	EC-4P02BU			1.2 - 1.6
	Gray	EC-3P02GY	EC-4P02GY			1.6 - 2.0

Pressure connection method of plug connector



- After checking connector and cable specification
- With the wire sheath pushed to the end of the insertion hole of the connector without stripping it
- By using the tool like pliers, press the cover until it sticks to the floor.

Dimension

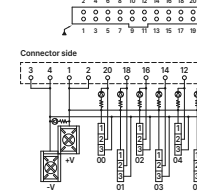


* MC-□□□□-3 does not have a motion indicator lamp.

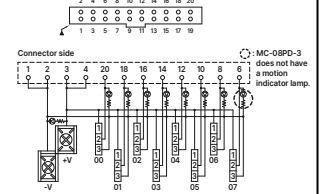
Model	A	B	C	D
MC-08NL-3, MC-08PL-3, MC-08ND-3, MC-08PD-3	58.0	46.0	HIF3BA-20PA-2.54DSA or XG4A-2031	3P Female * 8
MC-16NL-3, MC-16PL-3, MC-16ND-3, MC-16PD-3	84.0	71.0	HIF3BA-20PA-2.54DSA or XG4A-2031	3P Female * 16
MC-16NL-4B, MC-16PL-4B, MC-16ND-4B, MC-16PD-4B				4P Female * 16
MC-32NL-3, MC-32PL-3, MC-32ND-3, MC-32PD-3	136.0	123.0	HIF3BA-40PA-2.54DSA or XG4A-4031	3P Female * 32

Wiring Diagram

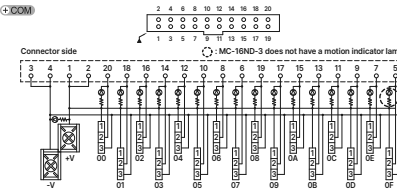
• MC-08NL-3 (NPN) \odot COM
MC-08ND-3



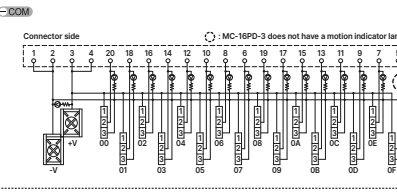
• MC-08PL-3 (PNP) \odot COM
MC-08PD-3



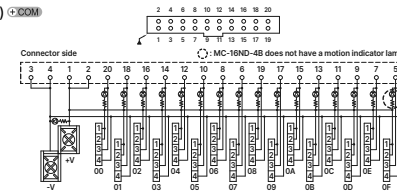
• MC-16NL-3 (NPN) \odot COM
MC-16ND-3



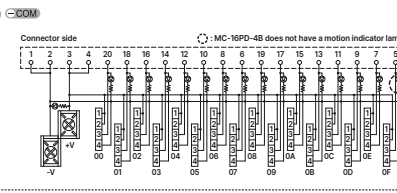
• MC-16PL-3 (PNP) \odot COM
MC-16PD-3



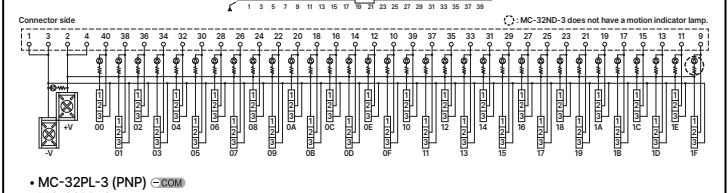
• MC-16NL-4B (NPN) \odot COM
MC-16ND-4B



• MC-16PL-4B (PNP) \odot COM
MC-16PD-4B



• MC-32NL-3 (NPN) \odot COM
MC-32ND-3



• MC-32PL-3 (PNP) \odot COM
MC-32PD-3

