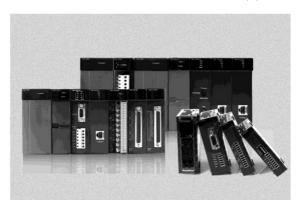




#### Terminal Block & Cable

- CM0-TB32M
- CM0-SCB10M/E/I
- CM0-SCB15M/E/I
  - CM0-SCB20M/E/I
- CM0-SCB25M/E/I
- CM0-SCB30M/E/I



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#### Before You Start \_

This manual contains important information on the use and operation of this device. Please read all the information carefully for optimal performance and to prevent any damage or misuse of the device.

To keep product safely, all activities including product installation, wiring operation, or maintenance required are to be treated by trained personnel.

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Safety symbols are classified into two categories, "WARNING" and "CAUTION".



Warning-This symbol describes situations that could cause major or fatal injury to the user



Caution-This symbol describes situations that may cause minor injury or damage to the device

#### SAFETY SYMBOLS LISED IN THIS PRODUCT MEANS .



This symbol warns the user of potential hazards.



This symbol warns the user of un-insulated voltage within the unit that can cause dangerous electric shock.

Keep this manual nearby the user operating devices so it can be easily checked.

### A-class equipment (Broadcasting communication equipment for business)

This product has passed the testing for electromagnetic waves for business use, and has not been designed or manufactured to be used as a household item; users are advised as such.

### Design Precautions ( A Warning) \_\_\_

Please install a safety circuit to protect entire control system in case of an unexpected power shutdown and PLC module malfunction. Such anomalies may severely compromise the integrity of the overall system.

External to the PLC, please install circuits and switches to safeguard the system from mechanical damages (ex. Emergency stop, upper/lower limit switches, forward/reverse direction interlocking circuits, etc)

When the PLC detects either of the following failure conditions, it may stop operation and turn off all outputs.

- The overcurrent protection or overvoltage protection of the power supply module is activated.
- The PLC CPU detected a failure, such as the watchdog timer error or module installation failure, with its self-diagnostic function.

In addition, all outputs may be turned on when there is a failure that the PLC CPU cannot detect, such as in the relay or TR terminal. Build an extra monitoring circuit that will monitor any output signal that could cause serious accidents.

A greater than normal current passed through the PLC for an extended period of time, or a short-circuited load flows in the output module may cause a fire.

Build a circuit that turns on the external power supply after the PLC power supply is turned on. If the external power supply is turned on first, it could result in output failure or malfunction

In order to ensure that the system operates safely, please configure an interlock circuit in the scan program for the following situations.

- When exchanging data with computer or other devices.
- When operated by a computer or other devices.

Not doing so could result in output failure or malfunction.

### Precautions for design ( A Caution)

Do not bundle the input/output signal or communications cables with the main circuit and power cables. They should be installed at least more than 100 mm (3.94inches) apart. Not doing so could result in output failure or malfunction.

### Precautions for mounting ( A Caution)

Use the PLC in the environment that meets the general specifications given in this manual.

Using this PLC in any environment outside the range of the general specifications could result in electric shock, fire, malfunction, or damage to or deterioration of the product.

Please ensure that each module is installed correctly in its place. Loosely or incorrectly installed pieces may result in malfunction, failure, or free-fall.

Power supply in PLC should be turned off before mounting the module. Not doing so could cause an electric shock or damage to the device.

Install I/O devices or extension connectors correctly. If they are installed incorrectly, it may result in an input or output failure.

Do not convey direct vibration into PLC. Doing so could cause electric shock, fire or malfunctions.

After wiring work, please make sure to close the terminal cover before turning on the power for the PLC system.

### Precautions for wiring ( Marning)

Make sure to check the device's rated voltage and circuit arrangement before wiring. Failure to do so may cause electric shock or damage on the device.

Make sure to close the terminal cover before turning on the power of PLC system after wiring work. Failure to do so may cause electric shock.

### Precautions for wiring ( ^ Caution) \_\_\_\_\_

Make sure to check device's regular voltage and sequence of terminals. Failure to do so may cause fire, electric shock and malfunctions.

Make sure to tighten the screw with standard torque. Loose connections may cause short-circuit. fire or malfunctions.

In grounding the FG ground terminals, be sure to conduct the product at least D type (Class 3) grounding. Not doing so could result in electric shock or malfunctions.

When wiring, make sure that wiring debris do not enter the module. Failure to do so may cause fire, equipment damage or malfunctions.

### Precautions for test run and repair ( \( \Delta \) Warning)

Please do not touch the terminals when the power is ON. Doing so could cause an electric shock or malfunctions.

When cleaning or tightening the screw, turn off the power of PLC and all other systems. Failure to do so could cause an electric shock or malfunctions.

Do not charge, disassemble, heat up, short, or solder the battery. Doing so could cause the battery to heat up, rupture or ignite thereby harming the user.

### Precautions for test run and repair ( A Caution)

Do not dissociate the PCB from the module's casing or make any modifications to the device. Doing so may cause fire, electric shock or malfunction.

When mounting or separating the module, make sure to turn off power to PLC and all other devices. Failure to do so could cause an electric shock or malfunctions.

Use radio, walkie-talkie or cellphone devices at least 30cm away from the PLC. Not doing so could result in malfunction.

Precautions for Disposal ( <u>ሰ</u> Caution)	

When the product is disposed of, it should be done so according to your country's regulations for similar types of industrial waste. Not doing so may cause an occurrence of toxic substances or explosion.



# **CONTENTS**

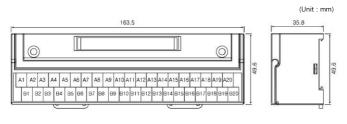
Items	Modules	Applied Modules
		CM1-XD32C/E
		CM1-YT32A/E, CM1-YT32B/F
Terminal	CM0-TB32M	CM1-HS02C/E/F
Block	0.10 1502.1	CM3-SP32MDT, CM3-SP32MDC
		CM3-SP32EDO, CM3-SP32EOT,
		CM3-SP32EOC, CM3-SP32EDT
	CM0-SCB10/15/20/25/30M	CM3-SP32MDT, CM3-SP32MDC
		CM3-SP32EDT
	CM0-SCB10/15/20/25/30E	CM3-SP32EDO,
Cable		CM3-SP32EOT, CM3-SP32EOC
	CM0-SCB10/15/20/25/30I	CM1-XD32C/E
		CM1-YT32A/E, CM1-YT32B/F
		CM1-HC02C/E/F

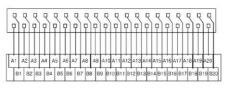
## **SPECIFICATION**

Items		Models	
Арр	olicable Cable	UL20276	
Conduc	ctor Construction	7/0.127mm(AWG28)	
External Di	iameter of Insulation	$0.12mm^2$	
External Diameter of Cable		Ø7.2mm	
Ra	nted Current	1A(MAX)	
Condu	ictor Resistance	Less than 0.223Ω/m	
Insu	lation Voltage	500VAC 50/60Hz per a minute	
Insulation Resistance		More than $15M\Omega/km$	
Environment	Ambient Temperature	-15∼55°C	
Environment	Ambient Humidity	35~75%RH	

- ▶ The operating conditions for the use should not be not freezing or condensation.
- $\blacktriangleright$  The color of the applicable cable is black.
- ▶ The value of the conductor resistance is based on 20 °C.

## **TERMINAL BLOCK DIMENSION**



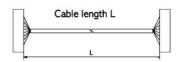




# **DIMENSION & WIRING (SP32MDT/EDT)**

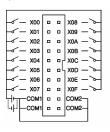
### 1. Wiring (CM0-SCBxxM)





Part Number	Cable Length
CM0-SCB10M	1.0M
CM0-SCB15M	1.5M
CM0-SCB20M	2.0M
CM0-SCB30M	3.0M

#### **▶** PLC Connection



#### **▶** Terminal Block Connection

—□— Y10	0	0	Y18 —
—⊡— Y11	0	0	Y 19 — 🗀
—□— Y12		0	Y1A ———
—⊡— Y13	0	0	Y1B — 🗀
—⊡— Y14	۱۵	0	Y1C-E-
—□— Y15	۵,	•	Y1D — 🖫
—⊑— Y16	0	0	Y1E
—⊡— Y17	0	0	Y1F —
-DC12/24V	0	0	DC GND COM-
-DC12/24V	0	0	DC GND COM-
			J

		$\overline{}$	_	1
	X00	-		X01
	X02	0	0	X03
	X04	-		X05
	X06	0		X07
	COM1	0		COM1
	X08	-		X09
	X0A	0		X0B
	X0C	-		XOD
_	X0E	0		X0F
4	COM2	\-		COM2
	Y 10	ᅥᆷ		Y11
	Y 12	0		Y13
	Y 14	-		Y15
	Y 16	0		Y17
	DC12/24V	0		DC12/24V
	Y 18	0		Y 19
	Y1A	-		Y1B
	Y 1C	-		Y1D
	Y1E	-	0	Y1F
D	C GND COM	0	0	DC GND COM
		_	_	

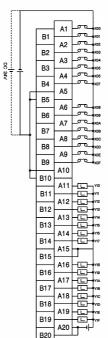
## **DIMENSION & WIRING (SP32MDT/EDT)**

### 2. CM0-TB32M ↔ CM3-SP32MDT/EDT Wiring





► Input point can be divided into 8 points for each COM1, COM2

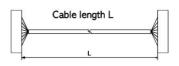


ONO EDOON	CM3-SP32MDT/EDT
A1	X00
B1	X01
A2	X02
B2	X03
A3	X04
B3	
	X05
A4	X06
B4	X07
A5	COM1
B5	COM1
A6	X08
B6	X09
A7	XOA
B7	X0B
A8	X0C
B8	X0D
A9	X0E
B9	X0F
A10	COM2
B10	COM2
A11	Y10
B11	Y11
A12	Y12
B12	Y13
A13	Y14
B13	Y15
A14	Y16
B14	Y17
A15	DC12/24V
B15	DC12/24V
A16	Y18
B16	Y19
A17	Y1A
B17	Y1B
A18	Y1C
B18	Y1D
A19	Y1E
B19	Y1F
A20	DC GND COM
B20	DC GND COM

## **DIMENSION & WIRING (SP32MDC)**

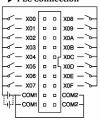
#### 1. Wiring (CM0-SCBxxM)



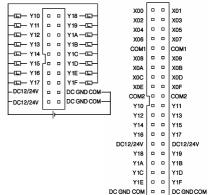


Part Number	Cable Length
CM0-SCB10M	1.0M
CM0-SCB15M	1.5M
CM0-SCB20M	2.0M
CM0-SCB30M	3.0M

#### ▶ PLC Connection

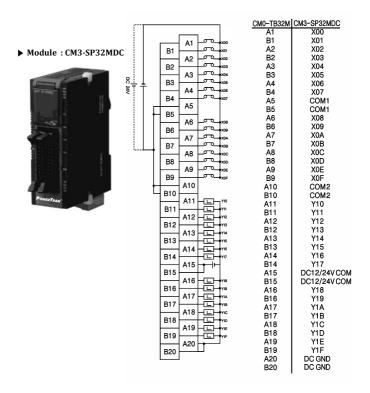


#### ► Terminal Block Connection



## **DIMENSION & WIRING (SP32MDC)**

#### 2. CM0-TB32M ↔ CM3-SP32MDC Wiring



▶ Input point can be divided into 8 points for each COM1, COM2.

# **DIMENSION & WIRING (SP32EDO)**

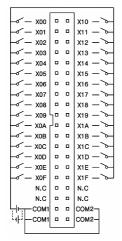
### 1. Wiring (CM0-SCBxxE)





Part Number	Cable Length
CM0-SCB10E	1.0M
CM0-SCB15E	1.5M
CM0-SCB20E	2.0M
CM0-SCB30E	3.0M

#### **▶** PLC Connection



### **▶** Terminal Block Connection

			1
X00	_		X01
X02			X03
X04			X05
X06			X07
X08			X09
X0A	_		X0B
X0C			X0D
X0E	0		XOF
N.C	_	0	N.C
COM1	۱		СОМ1
X10	۵,		X11
X12	0		X13
X14	_	0	X15
X16	_		X17
X18			X19
X1A	0	0	X1B
X1C	_		X1D
X1E	_	0	X1F
N.C	0		N.C
СОМ2	0	0	сом2

# **DIMENSION & WIRING (SP32EDO)**

### 2. CM0-TB32M ↔ CM3-SP32ED0 Wiring

► Module: CM3-SP32EDO



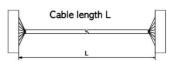
	CM3-SP32EDO
A1	X00
B1	X01
A2	X02
B2	X03
A3	X04
B3	X05
A4	X06
B4	X07
A5	X08
B5	X09
A6	X0A
B6	X0B
A7	X0C
B7	X0D
8A	X0E
B8	X0F
A9	N.C
B9	N.C
A10	COM1
B10	COM1
A11	X10
B11	X11
A12	X12
B12	X13
A13	X14
B13	X15
A14	X16
B14	X17
A15	X18
B15	X19
A16	X1A
B16	X1B
A17	X1C
B17	X1D
A18	X1E
B18	X1F
A19	N.C
B19	N.C
A20	COM2
B20	COM2

▶ Input point can be divided into 16 points for each COM1, COM2

# **DIMENSION & WIRING (SP32EOT)**

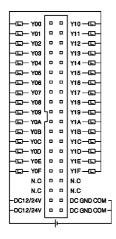
### 1. Wiring (CM0-SCBxxE)





Part Number	Cable Length
CM0-SCB10E	1.0M
CM0-SCB15E	1.5M
CM0-SCB20E	2.0M
CM0-SCB30E	3.0M

#### ▶ PLC Connection



#### **▶** Terminal Block Connection

	_		
Y00	-	0	Y01
Y02	-		Y03
Y04	0	0	Y05
Y06	0	0	Y07
Y08	-	0	Y09
YOA	-		Y0B
Y0C	-		YOD
Y0E	0		Y0F
N.C	0	0	N.C
DC12/24V	<b>ነ</b> -		DC12/24V
Y10	ᅥ		Y11
Y12	0		Y13
Y14	0	0	Y15
Y16	0		Y17
Y18	-	•	Y19
Y1A	-	•	Y1B
Y1C	0	0	Y1D
Y1E	0	0	Y1F
N.C	0		N.C
DC GND COM	-		DC GND COM

# **DIMENSION & WIRING (SP32EOT)**

### 2. CM0-TB32M ↔ CM3-SP32EOT Wiring

► Module: CM3-SP32EOT



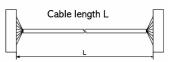
			1	
ı		A1	- <u></u>	
	B1	A2		
	B2	\L		
		A3	- <u></u>	
	В3	A4		
	В4	7.17		
		A5	HE-Y	
	B5	A6		
	В6	70		
		Α7	<b>-⊡→</b> ~	С
	B7	A8		
	В8	Ao		
		A9	_   _	
	B9	A10		
	B10	7.10	<b>↓</b>	
		A11	<b>├</b> ⊑⊢"	
	B11	A12		
	B12	7112	<u>-</u>	3
		A13	<u>-</u>	4
	B13	A14		
	B14	A14		
		A15	<u>-</u> □	
	B15	A16		
	B16	AID		
		A17	<u>-</u>	
	B17	A18		
	B18	AIB		
		A19		
	B19	400		
	B20	A20	ᆛᆛ	
			•	

CM0-TB32M	CM3-SP32EOT
A1	Y00
B1	Y01
A2	Y02
B2	Y03
A3	Y04
В3	Y05
A4	Y06
B4	Y07
A5	Y08
B5	Y09
A6	Y0A
B6	Y0B
A7	Y0C
B7	Y0D
A8	Y0E
B8 A9	Y0F
А9 В9	N.C N.C
A10	DC12/24V
B10	DC12/24V
A11	Y10
B11	Y11
A12	Y12
B12	Y13
A13	Y14
B13	Y15
A14	Y16
B14	Y17
A15 B15	Y18 Y19
A16	Y1A
B16	Y1B
A17	YIC
B17	Y1D
A18	Y1E
B18	Y1F
A19	N.C
B19	N.C
A20 B20	DC GND COM

# **DIMENSION & WIRING (SP32EOC)**

### 1. Wiring (CM0-SCBxxM)





Part Number	Cable Length
CM0-SCB10E	1.0M
CM0-SCB15E	1.5M
CM0-SCB20E	2.0M
CM0-SCB30E	3.0M

#### ▶ PLC Connection

#### Y10 —□ -**□**-- Y00 —— Y01 0 0 Y11 ------⊑-- Y02 0 0 Y12 ----Y13 -----Y14 ----0 0 Y15 -----**□**-- Y06 0 0 Y16 ---0 0 Y17 ------⊡— Y08 0 0 Y18 ----Y19 ----Œ--Y0A - - ا Y1A — 🗀 -Ш— Y0B Y1B ----—— Y0C Y1C-E 0 0 Y1D----Œ--- Y0E 0 0 Y1E-C-TEI— YOF Y1F —□ N.C N.C 0 0 N.C 0 0 N.C DC12/24V COM DC GND -0 0 DC GND -DC12/24V COM

#### **▶** Terminal Block Connection

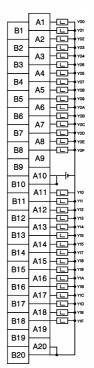
Y00	0		Y01
Y02	0	0	Y03
Y04	0		Y05
Y06	0		Y07
Y08	0		Y09
Y0A	_		Y0B
Y0C	_		Y0D
Y0E	0		Y0F
N.C	0	0	N.C
DC12/24V COM	<b>└</b>		DC12/24V COM
Y10	٦-	0	Y11
Y12	-	0	Y13
Y14	_		Y15
Y16	0		Y17
Y18	0		Y19
Y1A	0	0	Y1B
Y1C	0	0	Y1D
Y1E	0	0	Y1F
N.C	0	0	N.C
DC GND	_		DC GND
			1

## **DIMENSION & WIRING (SP32EOC)**

#### 2. CM0-TB32M ↔ CM3-SP32EOC Wiring

► Module : CM3-SP32EO(



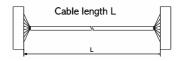


B1 Y01 A2 Y02 B2 Y03 A3 Y04 B3 Y05 A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0E B8 Y0E A9 N.C A10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1B B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		CM3-SP32EOC
B1 Y01 A2 Y02 B2 Y03 A3 Y04 B3 Y05 A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0E B8 Y0E A9 N.C A10 DC12/24VCOM B10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y15 A14 Y16 B14 Y16 B15 Y19 A15 Y18 B15 Y19 A16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	A1	Y00
A2 Y02 B2 Y03 A3 Y04 B3 Y05 A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D A8 Y0E B8 N.C A10 DC12/24VCOM B10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1B B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
B2 Y03 A3 Y04 B3 Y05 A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0F A9 N.C A10 DC12/24VCOM B10 DC12/24VCOM B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1B B16 Y1B B16 Y1B B16 Y1B B16 Y1B B17 Y1C B17 Y1C B17 Y1C B17 Y1C B18 Y1E B18 Y1F A19 N.C		
A3 Y04 B3 Y05 A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0F A9 N.C B9 N.C A10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y15 A14 Y16 B14 Y16 B15 Y19 A15 Y18 B15 Y19 A16 Y1B B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
B3 Y05 A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0C B8 Y0F A9 N.C B9 N.C A10 DC12/24V COM B10 DC12/24V COM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
A4 Y06 B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0F A9 N.C A10 DC12/24VCOM B10 DC12/24VCOM B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	A3	Y04
B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0F A9 N.C A10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	В3	Y05
B4 Y07 A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0F A9 N.C A10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	Δ4	Y06
A5 Y08 B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D A8 Y0E B8 Y0F A9 N.C B9 N.C A10 DC12/24VCOM B10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
B5 Y09 A6 Y0A B6 Y0B A7 Y0C B7 Y0D B8 Y0E B8 Y0F A9 N.C A10 DC12/24VCOM B10 DC12/24VCOM B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
A6 Y0A B6 Y0B A7 Y0C B7 Y0D A8 Y0E B8 Y0F A9 N.C		
B6 Y0B A7 Y0C B7 Y0D A8 Y0E B8 Y0F A9 N.C B9 N.C A10 DC12/24VCOM B10 Y11 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1A B16 Y1A B17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A7 Y0C B7 Y0D A8 Y0E B8 Y0F A9 N.C B9 N.C A10 DC12/24VCOM B10 DC12/24VCOM B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	A6	Y0A
B7 Y0D A8 Y0E B8 Y0F A9 N.C B9 N.C A10 DC12/24V COM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	B6	Y0B
B7 Y0D A8 Y0E B8 Y0F A9 N.C B9 N.C A10 DC12/24V COM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	Α7	YOC
A8 Y0E B8 Y0F A9 N.C B9 N.C A10 DC12/24V COM B10 DC12/24V COM A11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
B8		
A9 N.C B9 N.C N.C A10 DC12/24V COM B10 DC12/24V COM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
B9 N.C A10 DC12/24V COM B10 DC12/24V COM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1A B16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A10 DC12/24VCOM B10 DC12/24VCOM DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C		
B10 DC12/24VCOM A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C	B9	N.C
A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y18 B16 Y1A B16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C	A10	DC12/24V COM
A11 Y10 B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y18 B16 Y1A B16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C	B10	DC12/24VCOM
B11 Y11 A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A12 Y12 B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
B12 Y13 A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1E B18 N.C B19 N.C		
A13 Y14 B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
B13 Y15 A14 Y16 B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A14 Y16 B14 Y17 A15 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C	B13	Y15
B14 Y17 A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C	A14	Y16
A15 Y18 B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		Y17
B15 Y19 A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A16 Y1A B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
B16 Y1B A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A17 Y1C B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
B17 Y1D A18 Y1E B18 Y1F A19 N.C B19 N.C		
A18 Y1E B18 Y1F A19 N.C B19 N.C	A17	Y1C
B18 Y1F A19 N.C B19 N.C	B17	Y1D
B18 Y1F A19 N.C B19 N.C	A18	Y1E
A19 N.C B19 N.C		
B19 N.C		
	A20	DC GND
B20 DC GND	B20	DC GND

# DIMENSION & WIRING (XD32C/E)

### 1. Wiring (CM0-SCBxxI)





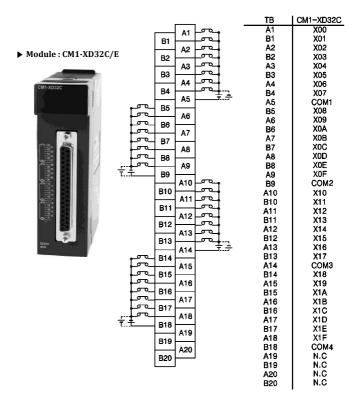
# ▶ PLC Connection

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X14 0 0	122
X15 O O	<u>:</u> ——[23] :
	<u> 124</u>
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XIB o ö	<u> </u>   27]
	i 28 🖳 :
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XIB O	ᄪᅋᅼ
XIC o	31
X1D O	·[교] 브 i
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	<b>:</b> [34]   ☐ [
DC24VO2A	COM4
41	36 🖳
	:— <sup>-</sup>

Part Number	Cable Length
CM0-SCB10I	1.0M
CM0-SCB15I	1.5M
CM0-SCB20I	2.0M
CM0-SCB30I	3.0M

## **DIMENSION & WIRING (XD32C/E)**

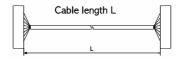
#### 2. CM0-TB32M ↔ CM1-XD32C/E Wiring



# **DIMENSION & WIRING (YT32A/E)**

### 1. Wiring (CM0-SCBxxI)





### ► PLC Connection

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V02	
V02 L	<u>"</u> "
V04 — L	
V05	ਜ਼ਿ^। — ਾਂ
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V07	7°I — 1
V08	
V00 L	
V04	
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Y10 — —	
Y11 L	
Y12 — —	
Y13	.— (
Y14	التاري
Y15	21
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YIB —	27
YIC	
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Part Number	Cable Length
CM0-SCB10I	1.0M
CM0-SCB15I	1.5M
CM0-SCB20I	2.0M
CM0-SCB30I	3.0M

# **DIMENSION & WIRING (YT32A/E)**

### 2. CM0-TB32M ↔ CM1-YT32A/E Wiring

► Module : CM1-YT32A/E



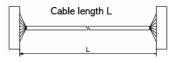
		1
	A1	
B1	A2	
B2	A3	
В3	A4	温
B4		
B5	A5	
B6	A6	
B7	<b>A</b> 7	点
	A8	
B8	A9	
B9	A10	
B10	A11	虚
B11		
B12	A12	岩
B13	A13	岩
B14	A14	点
Ē	A15	
B15	A16	
B16	A17	
B17	A18	
B18		
B19	A19	
B20	A20	
ı	ı	

ТВ	CM1-YT32A
A1 B1	Y00 Y01
A2	Y02
B2	Y03
A3	Y04
В3	Y05
A4	Y06
B4 A5	Y07 Y08
B5	Y09
A6	YOA
B6	YOB
A7	Y0C
B7 A8	Y0D Y0E
B8	YOF
A9	Y10
B9	Y11
A10	Y12
B10 A11	Y13 Y14
B11	Y15
A12	Y16
B12	Y17
A13	Y18
B13	Y19
A14 B14	Y1A Y1B
A15	YiC
B15	Y1D
A16	Y1E
B16	Y1F
A17 B17	N.C DC+24
A18	DC+24
B18	DC GND COM
A19	DC GND COM
B19	N.C
A20 B20	N.C N.C
D20	14.0

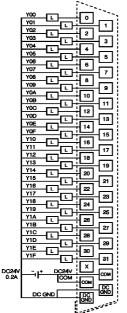
## **DIMENSION & WIRING (YT32B/F)**

### 1. Wiring (CM0-SCBxxI)





### ► PLC Connection



Part Number	Cable Length
CM0-SCB10I	1.0M
CM0-SCB15I	1.5M
CM0-SCB20I	2.0M
CM0-SCB30I	3.0M

# DIMENSION & WIRING (YT32B/F)

### 2. CM0-TB32M ↔ CM1-YT32B/F Wiring

### ► Module : CM1-YT32B/F



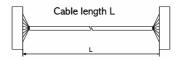
В1	A1	
	A2	<u>-</u> <u>-</u> <u>-</u> <u>-</u>
B2	АЗ	串
B3	A4	串
B4	A5	뭐
B5	A6	
В6		┝╚┵
B7	A7	串
B8	A8	串
B9	A9	
B10	A10	
	A11	
B11	A12	岩
B12	A13	串
B13	A14	記
B14	A15	揺
B15		
B16	A16	岩
B17	A17	ЦΙ
B18	A18	
B19	A19	$\square$
B20	A20	

ТВ	CM1-YT32B
A1	Y00
B1	Y01
A2 B2	Y02 Y03
A3	Y04
B3	Y05
A4	Y06
B4	Y07
A5	Y08
B5	Y09
A6	Y0A
B6	Y0B
A7 B7	Y0C Y0D
A8	YOE
B8	YOF
A9	Y10
B9	Y11
A10	Y12
B10	Y13
A11	Y14
B11	Y15
A12 B12	Y16 Y17
A13	Y17 Y18
B13	Y19
A14	Y1A
B14	Y1B
A15	Y1C
B15	Y1D
A16	Y1E
B16	Y1F
A17 B17	N.C DC+24V COM
A18	DC+24V COM
B18	DC GND
A19	DC GND
B19	N.C
A20	N.C
B20	N.C

# **DIMENSION & WIRING (HS02C)**

### 1. Wiring (CM0-SCBxxI)





### **▶** PLC Connection

		1	·,
	A 12V	ш.	20
	A 5V	- 2	20
	A.B COM	لگا	21
	B 24V	-3	إ لنكا
	B 12V	<u>ĽĽ</u>	22
	B 5V	4	إ لعما
CH1	PRE 24V	<u>ٿ</u>	23
0		- 5	إلقا
		<u>: —</u>	24
		6	التعا
	FUN 24V	يت	25
	FUN 12V FUN 5V	7	؛ لکتا
		_	26
	OUT1	<b></b>	ز کتا
	OUT2	بت	27
		9	التا
	<u>A 24V</u> _	لتا	28
		10	؛ لحقا
	A 5V	تنا	29
	A.B COM	11	؛ لختا
	B 24V	لنا	30
	<u>B 12V</u>	12	드:
	B 5V	_	31
CH2		13	إنت
	PRE 12V	_	32
		14	
	P.F.COM	==	33
	FUN 24V	15	
	FUN 12V	≔	34
	FUN_5	16	=:
	OUT1	=	35
	OUT2	17	느:
			36
		18	=:
	24G	☱	37
	24G	19	<u> </u>
	,		

Part Number	Cable Length
CM0-SCB10I	1.0M
CM0-SCB15I	1.5M
CM0-SCB20I	2.0M
CM0-SCB30I	3.0M

<sup>\*</sup> P.F com : Preset/Function com

# **DIMENSION & WIRING (HS02C)**

### 2. CM0-TB32M ↔ CM1-HS02C Wiring

### ► Module : CM1-HS02C

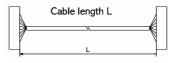


CM0-TB32M	CM1-HS02C	
A1	A 24V —	
B1	A 12V	
A2	A 5V	
B2	A.B COM	
A3	B 24V	
B3	B 12V	CH1
A4	B 5V	-
B4	PRE 24V	
A5	PRE 12V	
<b>B</b> 5	PRE 5V	l
A6	Preset/Function	com
B6	FUN 24V	1
A7	FUN 12V	
B7	FUN 5V	
A8	OUT1	
B8	OUT2	
A9	24G —	
B9	A24V —	
A10	A 12V	
B10	A 5V	
A11	A.B.COM	
B11	B 24V	
A12	B 12V	
	B 12V	
B12		
A13	PRE 24V	0110
B13	PRE 12V	CH2
A14	PRE 5V Preset/Function	' 
B14		com
A15	FUN 24V	
B15	FUN 12V	
A16	FUN 5V	
B16	OUT1	
A17	OUT2	
B17	24V	
A18	24V	
B18	24G	
A19	24G	•
B19	N.C	
A20	N.C	
B20	N.C	

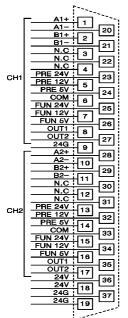
## **DIMENSION & WIRING (HS02E)**

### 1. Wiring (CM0-SCBxxI)





#### ▶ PLC Connection



Part Number	Cable Length
CM0-SCB10I	1.0M
CM0-SCB15I	1.5M
CM0-SCB20I	2.0M
CM0-SCB30I	3.0M

<sup>\*</sup> P.F com : Preset/Function com

# **DIMENSION & WIRING (HS02E)**

### 2. CM0-TB32M ↔ CM1-HS02E Wiring

#### ► Module: CM1-HS02E



СМО-ТВЗ2М		
A1	A1+	Ì
B1	A1-	
A2	B1+	
B2 A3	B1- N.C	
B3	N.C N.C	٠
A4	N.C	CH1
B4	PRE 24V	
A5	PRE 12V	
B5	PRE 5V	
A6	Preset/Function	com
B6	FUN 24V	
A7	FUN 12V	
B7	FUN 5V	
A8	OUT1	
B8 A9	OUT2 24G	
B9	A2+ —	
A10	A2-	
B10	B2+	
A11	B2-	
B11	N.C	
A12	N.C	
B12	N.C	
A13	PRE 24V PRE 12V	CH2
B13 A14	PRE 12V	CHZ
B14	Preset/Function	COM
A15	FUN 24V	ı
B15	FUN 12V	
A16	FUN 5V	
B16	OUT1	
A17	OUT2	
B17	24V	
A18	24V	
B18 A19	24G 24G ——	l
B19	N.C	
A20	N.C N.C	
B20	N.C	

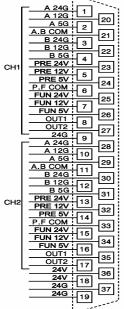
## **DIMENSION & WIRING (HS02F)**

#### 1. Wiring (CM0-SCBxxI)





#### ▶ PLC Connection



Part Number	Cable Length
CM0-SCB10I	1.0M
CM0-SCB15I	1.5M
CM0-SCB20I	2.0M
CM0-SCB30I	3.0M

<sup>\*</sup> P.F com : Preset/Function com

# **DIMENSION & WIRING (HS02F)**

### 2. CM0-TB32M ↔ CM1-HS02F Wiring

#### ► Module: CM1-HS02F



СМО-ТВЗ2М	CM1_HS02E	
A1	A 24G	
B1	A 12G	
A2	A 5G	
B2	A, B COM	
A3	B 24G	
В3	B 12G	CH1
A4	B 5G	
B4	PRE 24V	
A5	PRE 12V	
B5	PRE 5V	ļ
A6	Preset/Function	com
B6	FUN 24V	
A7	FUN 12V	
B7	FUN 5V	
A8	OUT1	
B8	OUT2	
A9	24G —	ļ
В9	A 24G	1
A10	A 12G	
B10	A 5G	
A11	A, B COM	
B11	B 24G	
A12	B 12G	
B12	B 5G	
A13	PRE 24V	
B13	PRE 12V	CH2
A14	PRE 5V	0
B14	Preset/Function	com
A15	FUN 24V	00111
B15	FUN 12V	
A16	FUN 5V	
B16	OUT1	
A17	OUT2	
B17	24V	
A18	24V	
B18	24G	
A19	24G —	
B19	N.C	
A20	N.C	
B20	N.C	

МЕМО

### PRODUCT WARRANTY

JKFIL Industrial automation products including hardware, software, and firmware (collectively called "Products") carry a **one-year warranty** against defects in materials and workmanship beginning from the date of product receipt from seller or its appointed distributor. If a product proves defective in materials and workmanship within one year from the date of purchase, we will replace or repair it. JKFIL makes no representation or warranty, express or implied, that the operation of the Products will be uninterrupted or error free, or that the functions contained therein will meet or satisfy buyer's intended use or requirements.

Repaired or replaced Products provided as a result of this warranty are warranted for a period of six (6) months from the date of replacement. JKFIL's standard policy is that all customers are responsible for freight charges to JKFIL when returning products under the warranty return policy.

This warranty will be void if Products date codes or serial numbers are removed or defaced. Warranties do not apply to products that have been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized repair, misuse, neglect, accident, alteration, improper installation or other acts which are not the fault of JKFIL, including damage caused in shipping. Our warranty also does not apply to any product that has been damaged by external causes such as fire, flood, sand, dirt, lightning, acts of God, battery leakage, theft, blown fuses, improper use of any electrical source or connection to product not recommended in writing for interconnection by JKFIL.

In no event will JKFIL be liable, whether in contract, tort or under any other legal theory, for lost profits or revenues, loss of use or similar economic loss, for any indirect, special, incidental, consequential, punitive or similar damages arising out of or in connection with any products including non-conforming products, or for any third party claims against you relating to the products, even if we have been advised of the possibility of such claim. In no event will our monetary liability in respect of any product exceed the purchase price that you paid for it.

### PRODUCT WARRANTY

To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and usually change with time. It is your responsibility to determine which codes should be followed, and to verify that the equipment, installation and operation is in compliance with the latest revision of these codes.

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THE COURT AT CHENNAI SHALL HAVE EXCLUSIVE JURISDICTION.



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