

MELSEC-Dedicated Small-Size Type Spring Clamp Terminal Block Modules

New Release

New spring clamp terminal blocks are available now!

New

New



Model FA1-TE1S32XY
32-point horizontal type spring clamp terminal block



Model FA1-TE1SV16XY
16-point vertical type spring clamp terminal block



Model FA1-TE1SV32XY
32-point vertical type spring clamp terminal block



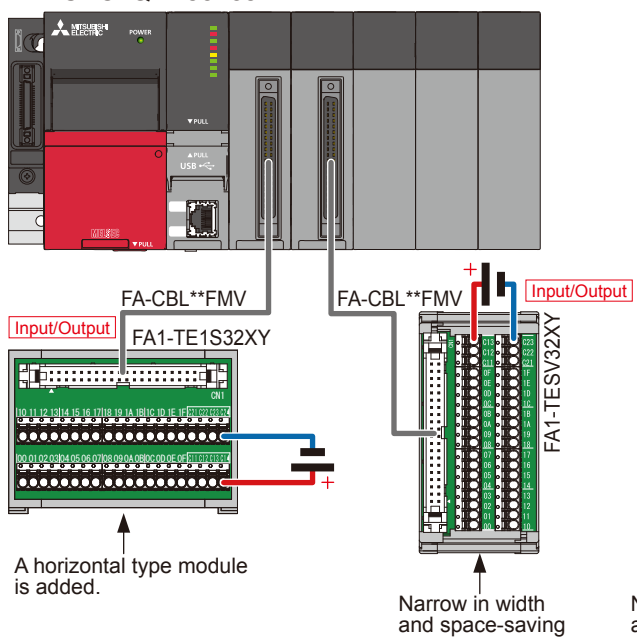
Model FA1-TE1SV38COM
38-point vertical type spring clamp common terminal block

Features

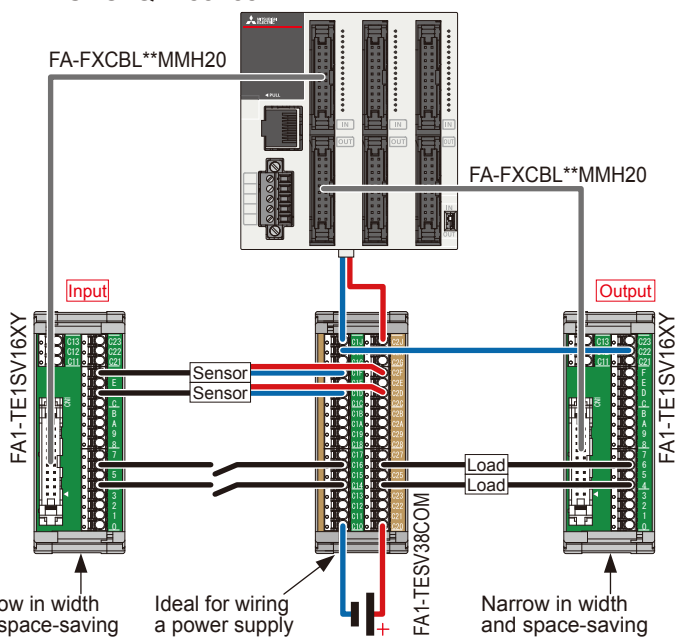
- A connector ⇔ terminal block conversion module can be connected to a programmable controller easily with a dedicated cable. (For connectable programmable controllers and cables, refer to "■ Connectable programmable controllers".)
- Push-in connections are available by using ferrule terminals.
- By placing a common terminal block next to a connector ⇔ spring clamp terminal block conversion module, a device such as 3-wire sensors can be easily connected.

Example of use

MELSEC iQ-R series



MELSEC iQ-F series



Connectable programmable controllers

●FA1-TE1S32XY, FA1-TESV32XY

Programmable controller type	Input/output	Module model		Connection cable			
MELSEC iQ-R series	Input	RX41C4, RX42C4	Positive common dedicated	FA-CBL**FMV			
			Negative common dedicated	FA-CBL**FMVE			
	Output	RY41NT2P, RY42NT2P, RY41PT1P, RY42PT1P	FA-CBL**FMV		FA-CBL**FMV		
			Input/output	RH42C4NT2P	When connected to an input side positive common	FA-CBL**FMV	
When connected to an input side negative common	FA-CBL**FMVE						
MELSEC-Q series	Input	QX41, QX41-S1, QX41-S2, QX42, QX42-S1	FA-CBL**FMV		FA-CBL**FMV		
			QX71, QX72	Positive common dedicated	FA-CBL**FMV		
				Negative common dedicated	FA-CBL**FMVE		
			QX81, QX81-S2	FA-CBL**DMFX		FA-CBL**DMFX	
	Output	QY41P, QY41H, QY42P, QY71	FA-CBL**FMV		FA-CBL**FMV		
			QY81P	FA-CBL**DMFY		FA-CBL**DMFY	
			QY82P	FA-CBL**FMV		FA-CBL**FMV	
			Input/output	QH42P, QX41Y41P	Common to input side and output side		FA-CBL**FMV
	MELSEC-L series	Input	LX41C4, LX42C4	Positive common dedicated	FA-CBL**FMV		
				Negative common dedicated	FA-CBL**FMVE		
Output		LY41NT1P, LY42NT1P, LY41PT1P, LY42PT1P	FA-CBL**FMV		FA-CBL**FMV		
			Input/output	LH42C4NT1P, LH42C4PT1P	When connected to an input side positive common	FA-CBL**FMV	
When connected to an input side negative common	FA-CBL**FMVE						
CC-Link remote I/O module	Input	AJ65SBTCF1-32D, AJ65BTC1-32D	Positive common dedicated	FA-CBL**FMH	FA-FCBL**FMH		
	Output	AJ65SBTCF1-32T, AJ65BTC1-32T		FA-CBL**FMH	FA-FCBL**FMH		
CC-Link IE Field Network remote I/O module	Input	NZ2GFCF1-32D	Positive common dedicated	FA-CBL**FMH	FA-FCBL**FMH		
	Output	NZ2GFCF1-32T		FA-CBL**FMH	FA-FCBL**FMH		

●FA1-TE1SV16XY

Programmable controller type	Input/output	Module model		Connection cable		
MELSEC iQ-R series	Input	RX40C7	Positive common dedicated	FA-CBL**TMV20	FA-CBL**M20	
			Negative common dedicated	FA-CBL**YM20	FA-CBL**M20	
			RX40NC6B	FA-CBL**TMV20	FA-CBL**M20	
	Output	RY40NT5P, RY40PT5P, RY40PT5B	FA-CBL**FM2V		FA-CBL**FM2LV	
			RY41NT2P, RY42NT2P, RY41PT1P, RY42PT1P	FA-CBL**TMV20	FA-CBL**M20	
Input/output	RH42C4NT2P	Input side positive common dedicated	FA-CBL**FM2V	FA-CBL**FM2LV		
MELSEC iQ-F series MELSEC-F series	Input	FX5-C16EX/D, FX5-C16EX/DS, FX5-C32EX/D, FX5-C32EX/DS, FX2NC-16EX, FX2NC-32EX		FA-FXCBL**MMH20		
	Output	FX5-C16EYT/D, FX5-C16EYT/DSS, FX5-C32EYT/D, FX5-C32EYT/DSS FX2NC-16EYT, FX2NC-32EYT		FA-FXCBL**MMH20		
	Input/output	FX5UC-32MT/D, FX5UC-32MT/DSS, FX5UC-64MT/D, FX5UC-64MT/DSS, FX5UC-96MT/D FX5UC-96MT/DSS, FX5-C32ET/D, FX5-C32ET/DSS, FX3UC-16MT/D, FX3UC-32MT/D FX3UC-32MT-LT(-LT2), FX3UC-64MT/D, FX3UC-96MT/D, FX3GC-32MT/D		FA-FXCBL**MMH20		
MELSEC-Q series	Input	QX40, QX40-S1	FA-CBL**TMV20		FA-CBL**M20	
			FA-CBL**YM20		FA-CBL**M20	
			QX41, QX41-S1, QX41-S2, QX42, QX42-S1	FA-CBL**FM2V		FA-CBL**FM2LV
				QX70	Positive common dedicated	FA-CBL**TMV20
			Negative common dedicated		FA-CBL**YM20	FA-CBL**M20
			QX71, QX72	Positive common dedicated		FA-CBL**FM2V
	Output	QY40P	FA-CBL**TMV20		FA-CBL**M20	
			FA-CBL**YM20		FA-CBL**M20	
			QY41P, QY41H, QY41P, QY71	FA-CBL**FM2V		FA-CBL**FM2LV
			QY50, QY70, QY80	FA-CBL**TMV20		FA-CBL**M20
Input/output	QH42P, QX41Y41P	Common to input side and output side		FA-CBL**DM2FY		
		FA-CBL**YM20		FA-CBL**M20		
		FA-CBL**FM2V		FA-CBL**FM2LV		
		FA-CBL**FM2V		FA-CBL**FM2LV		
MELSEC-L series	Input	LX40C6	FA-CBL**YM20		FA-CBL**M20	
			LX41C4, LX42C4	Positive common dedicated	FA-CBL**FM2V	FA-CBL**FM2LV
	Output	LY40NT5P, LY40PT5P	FA-CBL**YM20		FA-CBL**M20	
LY41NT1P, LY42NT1P, LY41PT1P, LY42PT1P			FA-CBL**FM2V		FA-CBL**FM2LV	
CC-Link remote I/O module	Input	AJ65SBTCF1-32D, AJ65BTC1-32D	When connected to a positive common	FA-CBL**FM2H	FA-CBL**FM2LH	
	Output	AJ65SBTCF1-32T, AJ65BTC1-32T		FA-CBL**FM2H	FA-CBL**FM2LH	
CC-Link IE Field Network remote I/O module	Input	NZ2GFCF1-32D	Positive common dedicated	FA-CBL**FM2H	FA-CBL**FM2LH	
	Output	NZ2GFCF1-32T		FA-CBL**FM2H	FA-CBL**FM2LH	

●FA1-TESV38COM

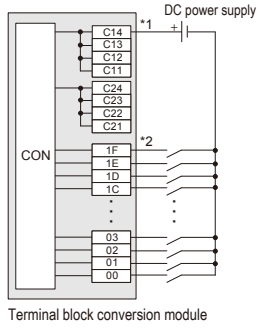
Programmable controller type	Rated voltage	Module model
All programmable controllers	24VDC, 100 to 240VAC	This product can be connected to all programmable controllers. Connect to common terminals for a power supply or I/O signal.

Wiring examples

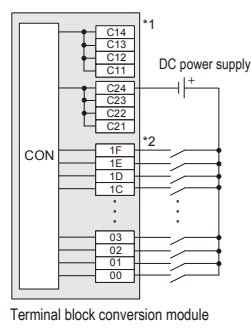
When wiring the products, refer to the manual (published by Mitsubishi Electric) for the programmable controller module to be connected.

MELSEC iQ-R / MELSEC-Q / MELSEC-L series, CC-Link, CC-Link IE Field Network
 <FA1-TE1S32XY, FA1-TE1S32XY, FA1-TE1S16XY>

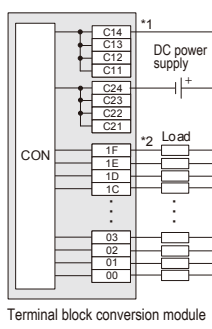
1) Positive common input



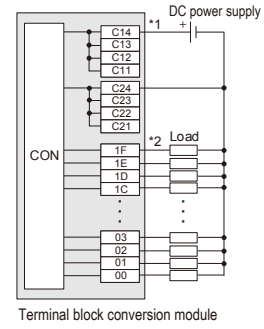
2) Negative common input



3) Sink output



4) Source output



Terminal block conversion module

Terminal block conversion module

Terminal block conversion module

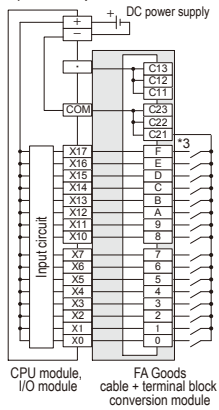
Terminal block conversion module

*1: The C14 and C24 terminals are for the FA1-TE1S32XY only.

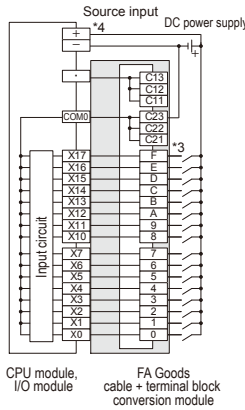
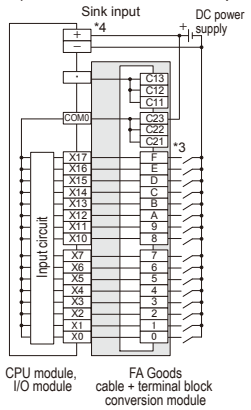
*2: The FA1-TE1S16XY supports the 16-point (signal 0 to F).

MELSEC iQ-F / MELSEC-F series
 <FA1-TE1S16XY>

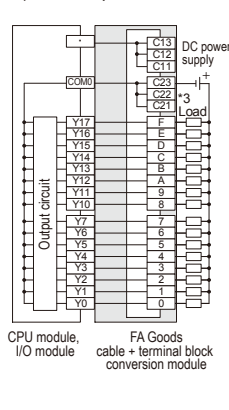
1) Sink input



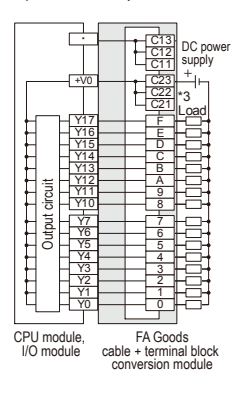
2) Sink/source common input



3) Sink output



4) Source output



CPU module, I/O module

CPU module, I/O module

CPU module, I/O module

CPU module, I/O module

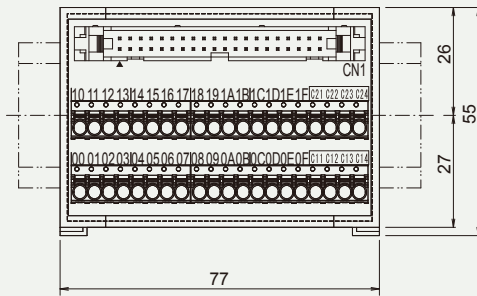
CPU module, I/O module

*3: Read the signal name indications 8 to F as 0 to 7 (higher numbers).

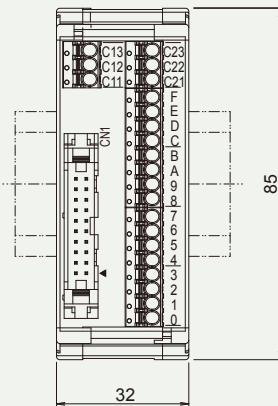
*4: When using this product for a CPU module, connect the same power supply as the one used for the CPU module to a common terminal.

External dimensions

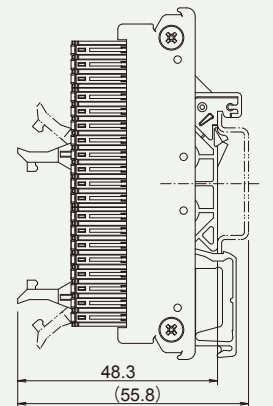
●FA1-TE1S32XY



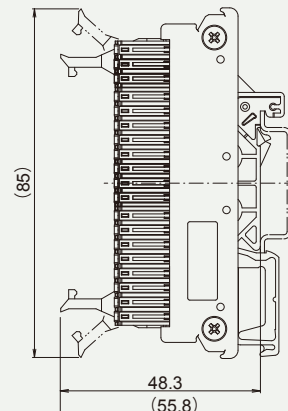
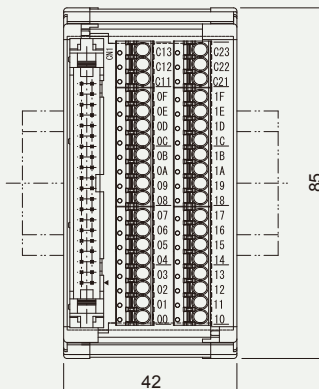
●FA1-TE1S16XY



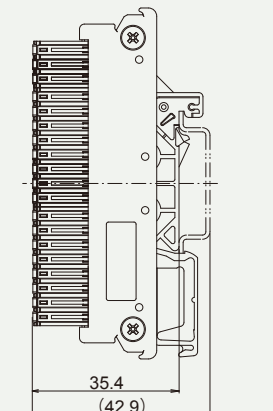
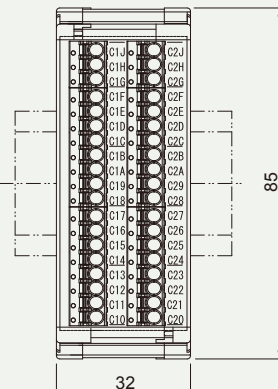
(Unit: mm)



●FA1-TE1S32XY



●FA1-TE1S38COM







Specifications

Item		Specifications			
Model		FA1-TE1S32XY	FA1-TE1SV16XY	FA1-TESV32XY	FA1-TESV38COM
Installation type		Horizontal type	Vertical type	Vertical type	Vertical type
Number of points		32	16	32	38
Rated voltage		24VDC (Class2 or SELV+LIM) (Note 4)		24VDC (Class2)	24VDC (Class2 or SELV+LIM) (Note 4) / 100 to 240VAC (+10%, -15%), 50/60Hz
Maximum operating voltage		30VDC (Class2 or SELV+LIM) (Note 4)		30VDC (Class2)	30VDC (Class2 or SELV+LIM) (Note 4) / 264VAC
Maximum operating current (Note 1)		Signal: 1A, Common: 2A			Common: 6A
Wiring method for common		32 points / 4 (24V) common points + 4 (0V) common points	16 points / 3 common points + 3 common points	32 points / 3 (24V) common points + 3 (0V) common points	19 common points + 19 common points
Terminal block part	Number of terminals	40	22	38	38
	Applicable wire size (Note 2 and Note 3)	0.2 to 1.5mm ² (24 to 16 AWG), Sheath: ϕ 2.8mm or less			
	Wire strip length	8 to 9mm (Maximum sheath outside diameter: ϕ 2.8mm or less)			
Module installation	Applicable DIN rails: TH35-7.5Fe, TH35-7.5Al (compliant with IEC 60715)				
Withstand voltage	500VAC for 1 minute				
Insulation resistance (Initial)	10M Ω or higher (measured with 500VDC insulation resistance tester)				
Weight		60g	50g	70g	60g
Precautions	<p>Note 1 : Evaluation for UL certification is conducted using a resistive load.</p> <p>Note 2 : Evaluation for UL certification is conducted with copper wires.</p> <p>Note 3 : Select cables depending on the current value used.</p> <p>Note 4 : Use a Class2 power supply or a SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy Circuit) power supply.</p> <p>Note 5 : For a wire to be connected to a terminal block, use a copper wire whose temperature standard is 75°C or higher.</p>				

Applicable ferrule terminals

Manufacturer	Type	Applicable ferrule terminal	Crimping tool
	Applicable wire size		
WAGO Company of Japan, Ltd	0.08 to 0.34mm ² (28 to 22 AWG)	216-302	206-220
	0.34mm ² (24 and 22 AWG)	216-302	206-204
	0.5mm ² (22 and 20 AWG)	216-201	
	0.75mm ² (20 and 18 AWG)	216-202	

Model list

Product	Shape	Model	Remarks
DC-dedicated 32-point small type connector \leftrightarrow spring clamp terminal block conversion module	 New	FA1-TE1S32XY	● Connect the positive side of a power supply (24V, 12V, and 5V) to the C11 to C14 terminals. Connect the power supply 0V to the C21 to C24 terminals.
DC-dedicated 16-point small type connector \leftrightarrow spring clamp terminal block conversion module	 New	FA1-TE1SV16XY	● Refer to "■ Wiring examples" and the programmable controller manual (published by Mitsubishi Electric) when wiring the products.
DC-dedicated 32-point small type connector \leftrightarrow spring clamp terminal block conversion module		FA1-TESV32XY	● Connect the positive side of a power supply (24V, 12V, and 5V) to the C11 to C13 terminals. Connect the power supply 0V to the C21 to C23 terminals.
General-purpose 38-point small type Spring clamp common terminal block module		FA1-TESV38COM	● The C10 to C1J terminals and C20 to C2J terminals can be used as common terminals for the two lines (negative and positive).

MELSEC, MELSEC-iQ-R, CC-Link, and CC-Link IE are the registered trademark of Mitsubishi Electric Corporation in Japan.
All other company and product names in this document are the trademarks or registered trademarks of their respective owners.

MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED

[NAGOYA ENGINEERING OFFICE] 139, Shimoyashikicho, Shimoyashiki, Kasugai, Aichi, 486-0906, Japan

Precautions for Choosing the Products

This publication explains the typical features and functions of the products herein and does not provide restrictions or other information related to usage and module combinations. Before using the products, always read the product user manuals.

Mitsubishi Electric Engineering will not be held liable for damage caused by factors found not to be the cause of Mitsubishi Electric Engineering; machine damage or lost profits caused by faults in the Mitsubishi Electric Engineering products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi Electric Engineering; damages to products other than Mitsubishi Electric Engineering products; and to other duties.

The information is intended for the Japanese market.



Before using the products, ensure the safety in case of failure. We shall not bear any responsibility for consequential damages caused by failure of the product. Please read Safety Precaution in the FA Goods General Catalog carefully, and pay full attention to safety to handle the products correctly.



For safe use

- To use the products given in this publication properly, always read the relevant manuals before beginning operation.
- The products have been manufactured as general-purpose parts for general industries, and are not designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the products for special purposes such as nuclear power, electric power, aerospace, medicine or passenger-carrying vehicles, consult with Mitsubishi Electric Engineering.
- The products have been manufactured under strict quality control. However, when installing the products where major accidents or losses could occur if the products fail, install appropriate backup or fail-safe functions in the system.