

# 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-TE32XY**  
32-point vertical type spring clamp terminal block



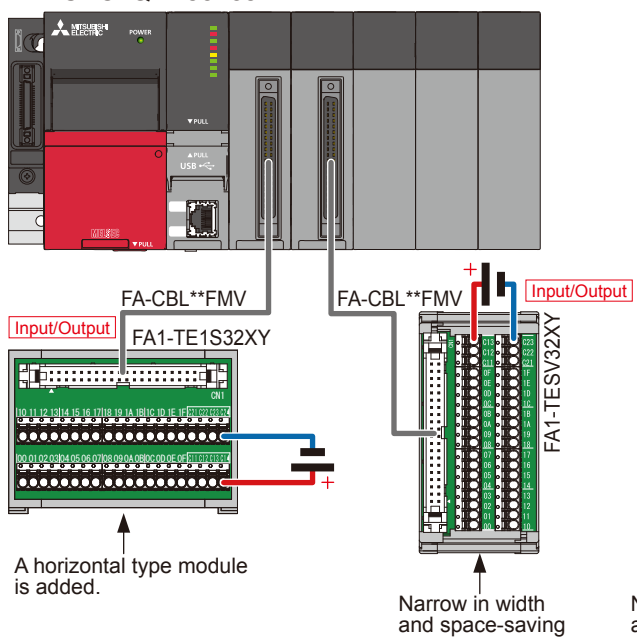
**Model FA1-TE38COM**  
38-point vertical type spring clamp common terminal block

## Features

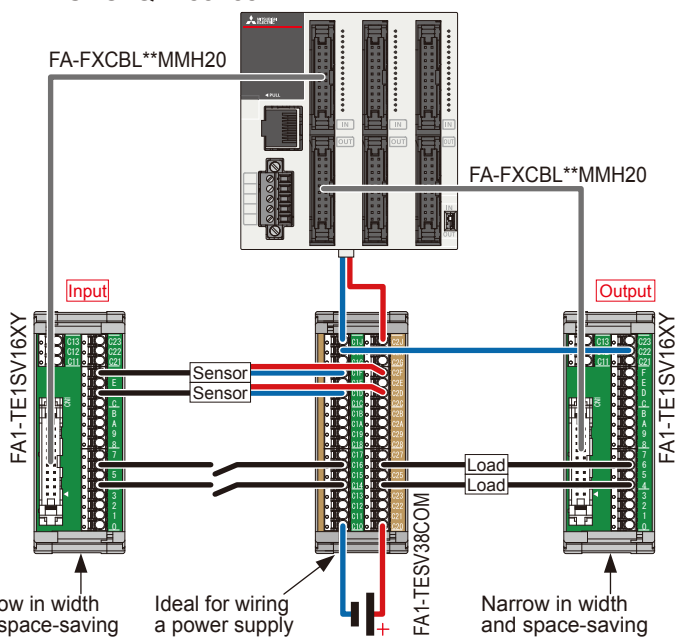
- A connector ⇔ terminal block conversion module can be connected to a programmable controller easily with a dedicated cable. (For connectable programmable controllers and cables, refer to "■ Connectable programmable controllers".)
- Push-in connections are available by using ferrule terminals.
- By 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		
			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		
			QX71, QX72	Positive common dedicated	FA-CBL**FMV		
				Negative common dedicated	FA-CBL**FMVE		
			QX81, QX81-S2			FA-CBL**DMFX	
	QX82, QX82-S1			FA-CBL**FMVE			
	Output	QY41P, QY41H, QY42P, QY71			FA-CBL**FMV		
			QY81P			FA-CBL**DMFY	
			QY82P			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		
			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					
Output side			FA-CBL**FMV				
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**YM20	FA-CBL**M20
			RY41NT2P, RY42NT2P, RY41PT1P, RY42PT1P			FA-CBL**TMV20
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	
		QX41, QX41-S1, QX41-S2, QX42, QX42-S1			FA-CBL**FM2V	FA-CBL**FM2LV
			QX70	Positive common dedicated	FA-CBL**TMV20	FA-CBL**M20
		Negative common dedicated		FA-CBL**YM20	FA-CBL**M20	
		QX71, QX72	Positive common dedicated		FA-CBL**FM2V	FA-CBL**FM2LV
	Output	QX80			FA-CBL**TMV20	FA-CBL**M20
					FA-CBL**YM20	
		QY40P			FA-CBL**TMV20	FA-CBL**M20
			QY41P, QY41H, QY41P, QY71			FA-CBL**YM20
Input/output	QH42P, QX41Y41P	Common to input side and output side		FA-CBL**FM2V	FA-CBL**FM2LV	
		LH42C4NT1P, LH42C4PT1P	Input side positive common dedicated	FA-CBL**FM2V	FA-CBL**FM2LV	
	LY40NT5P, LY40PT5P		When connected to a positive common	FA-CBL**FM2H	FA-CBL**FM2LH	
		LY41NT1P, LY42NT1P, LY41PT1P, LY42PT1P			FA-CBL**FM2V	FA-CBL**FM2LV
MELSEC-L series	Input	LX40C6			FA-CBL**FM2V	FA-CBL**FM2LV
			LX41C4, LX42C4	Positive common dedicated		FA-CBL**FM2V
	Output	LY40NT5P, LY40PT5P			FA-CBL**FM2V	FA-CBL**FM2LV
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

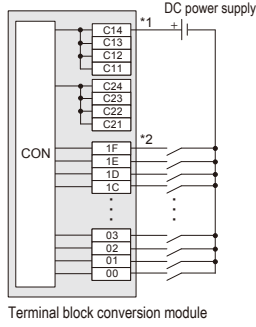
Programmable controller type	Rated voltage	Module model
All programmable controllers	24VDC, 100 to 240VAC	This product can be connected to all programmable controllers. Connect to common terminals for a power supply or I/O signal.

## Wiring examples

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

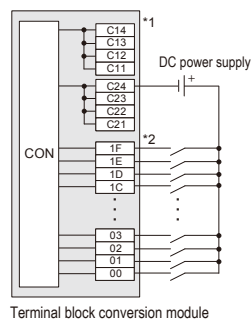
MELSEC iQ-R / MELSEC-Q / MELSEC-L series, CC-Link, CC-Link IE Field Network  
 <FA1-TE1S32XY, FA1-TE1S32XY, FA1-TE1S16XY>

1) Positive common input



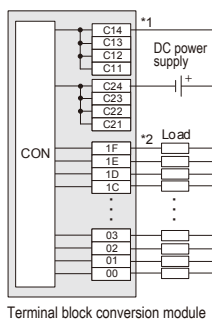
Terminal block conversion module

2) Negative common input



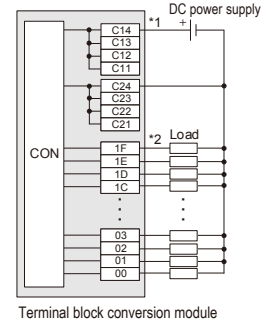
Terminal block conversion module

3) Sink output



Terminal block conversion module

4) Source output



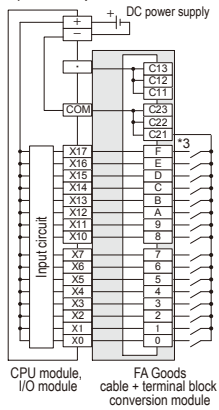
Terminal block conversion module

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

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

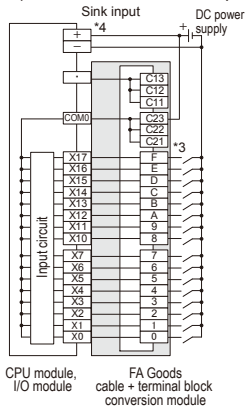
MELSEC iQ-F / MELSEC-F series  
 <FA1-TE1S16XY>

1) Sink input

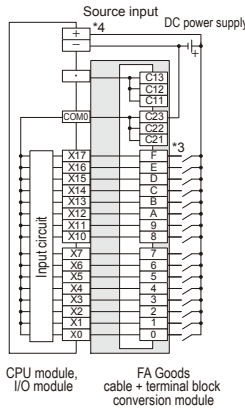


CPU module, I/O module  
 FA Goods cable + terminal block conversion module

2) Sink/source common input

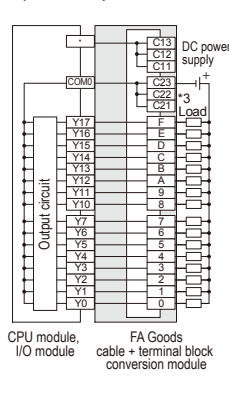


CPU module, I/O module  
 FA Goods cable + terminal block conversion module



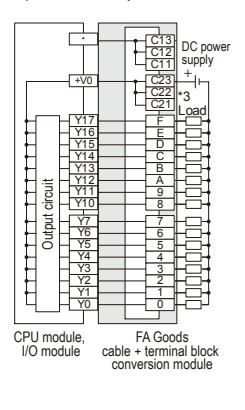
CPU module, I/O module  
 FA Goods cable + terminal block conversion module

3) Sink output



CPU module, I/O module  
 FA Goods cable + terminal block conversion module

4) Source output



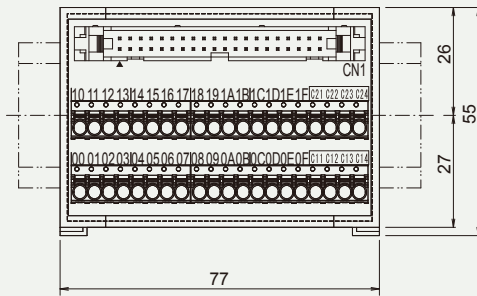
CPU module, I/O module  
 FA Goods cable + terminal block conversion module

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

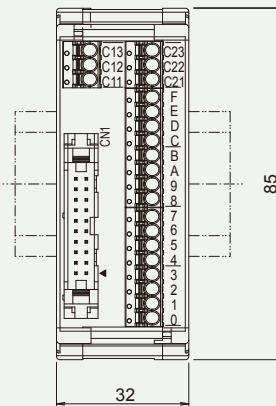
\*4: When using this product for a CPU module, connect the same power supply as the one used for the CPU module to a common terminal.

## External dimensions

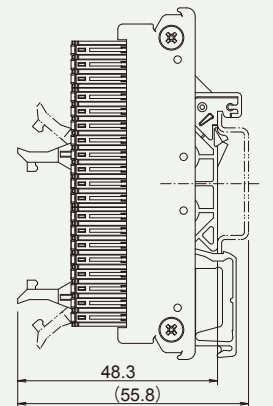
●FA1-TE1S32XY



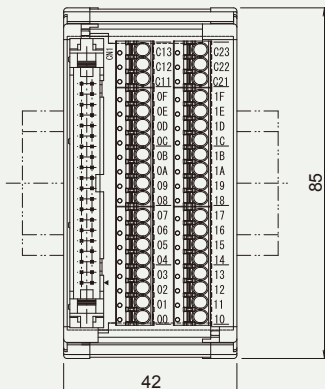
●FA1-TE1S16XY



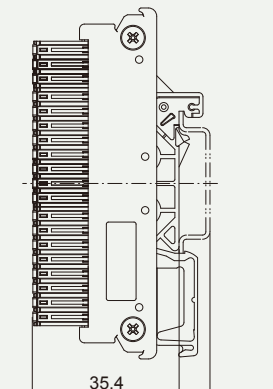
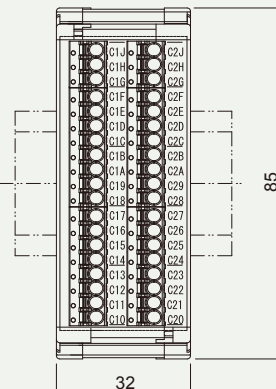
(Unit: mm)



●FA1-TE1S32XY



●FA1-TE1S38COM







## Specifications

Item		Specifications			
Model		FA1-TE1S32XY	FA1-TE1SV16XY	FA1-TESV32XY	FA1-TESV38COM
Installation type		Horizontal type		Vertical type	
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 <sup>2</sup> (24 to 16 AWG), Sheath: $\phi$ 2.8mm or less			
	Wire strip length	8 to 9mm (Maximum sheath outside diameter: $\phi$ 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 $\Omega$ or higher (measured with 500VDC insulation resistance tester)			
Weight		60g	50g	70g	60g
Precautions		Note 1 : Evaluation for UL certification is conducted using a resistive load. Note 2 : Evaluation for UL certification is conducted with copper wires. Note 3 : Select cables depending on the current value used. Note 4 : Use a Class2 power supply or a SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy Circuit) power supply. Note 5 : For a wire to be connected to a terminal block, use a copper wire whose temperature standard is 75°C or higher.			

## Applicable ferrule terminals

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

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Please read Safety Precaution in the FA Goods General Catalog carefully, and pay full attention to safety to handle the products correctly.