

# Spring Clamp Terminal Block Conversion Adapter

Model: FA1-TE40PA

Quick and easy wiring, offering innovative solution

Easy wiring

Stable connection

Less maintenance

Spring clamp terminal block  
can be used to reduce wiring time

Easy push-in  
connection

Front connection  
enabled for  
connector type  
modules to reduce  
installation space

Applicable series

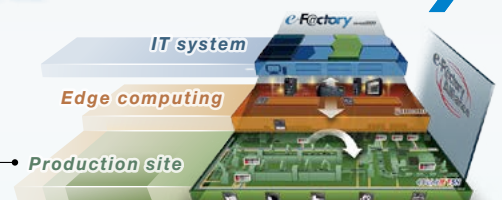
**MELSEC iQ-R** series

**MELSEC Q** series

**MELSEC L** series

FA products **e-Factory**

wire-saving and  
process time reduction

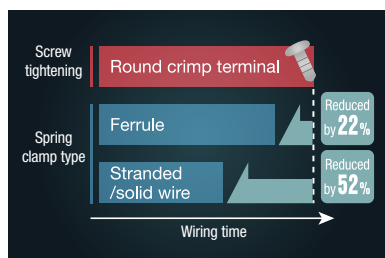


Source: Mitsubishi Electric Corporation

# Front connection type now available in addition to the existing relay terminal block, which is used together with a digital signal converter

## Features of spring clamp terminal specification

### Easy wiring



Wiring time can be significantly reduced by push-in connection.

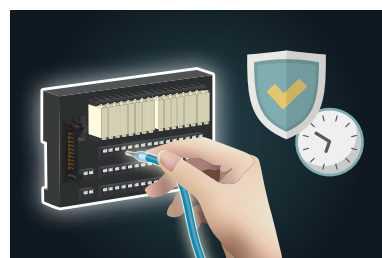
\* Calculated by comparing the time taken by non-experts with two years of experience (Data sourced from Japan Switchboard & control system Industries Association)

### Stable connection



Screws are vibration resistant. Uniform quality is guaranteed for wiring since no special skills are required.

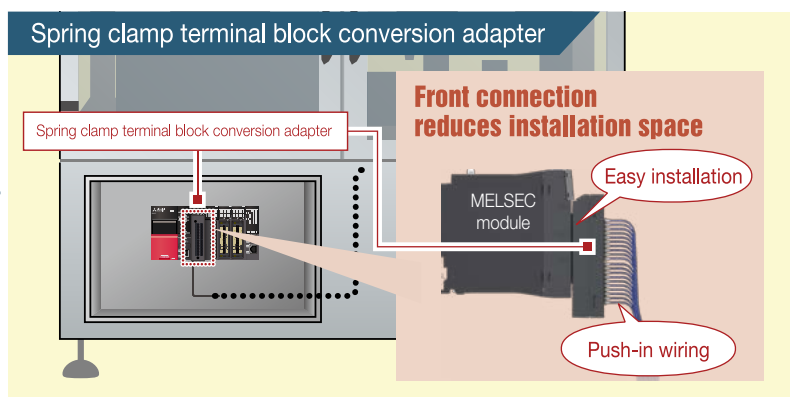
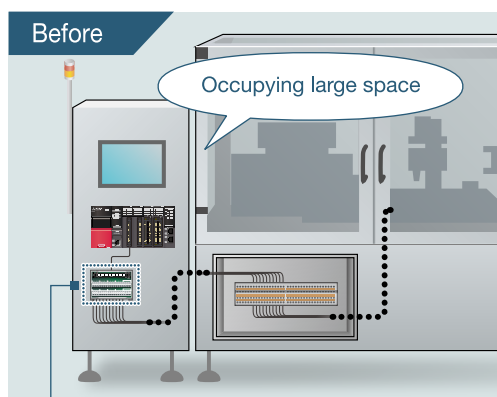
### Less maintenance



Screw tightening during maintenance is not required, reducing work load of workers. Rewiring work is also facilitated by push-in connection.

## Easy push-in connection available in limited space

Front connection does not require any separate terminal block, enabling installation in a small cabinet or inside a system.



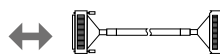
### Alternative for users who have no space problem

Use our spring clamp type relay terminal block for programmable controllers.

(For details, refer to the product list on the back cover page.)



MELSEC module (connector type)



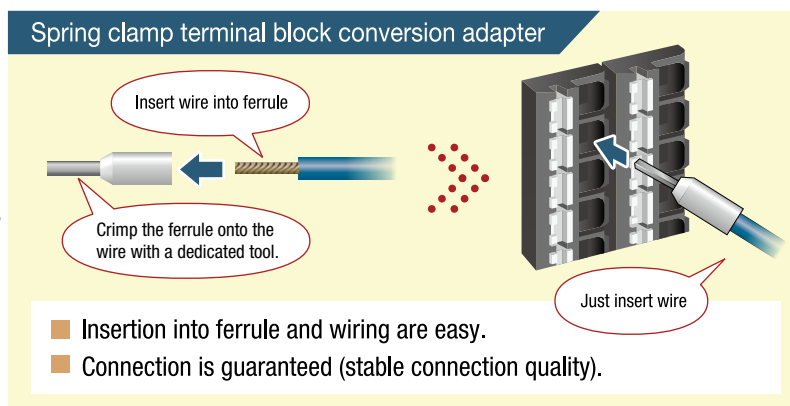
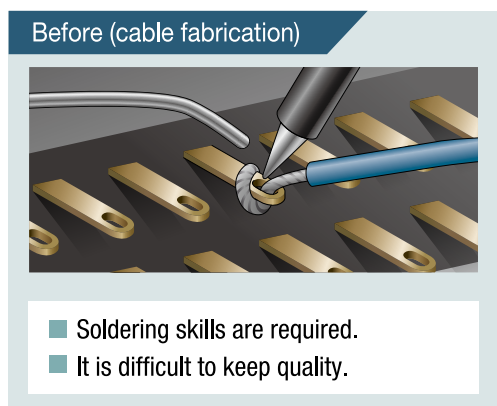
Connection cable



Spring clamp type relay terminal block for programmable controllers

## Quick and easy wiring and reliable quality

Uniform connection quality is guaranteed since no soldering skills are required.



# Easy to add signals with various wire sizes supported

Signal wires can be rewired easily for extension or repair of systems. The spring clamp type supports large wire sizes.

Before (40-pin connector)

Addition or rewiring



1 Remove the connector.

2 Disassemble the connector.

3 Rewiring (soldering)

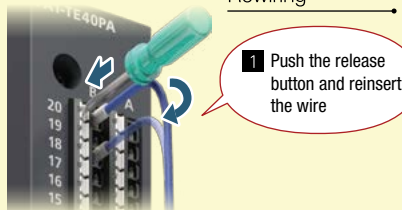
Spring clamp terminal block conversion adapter

Addition



1 Just insert wire

Rewiring

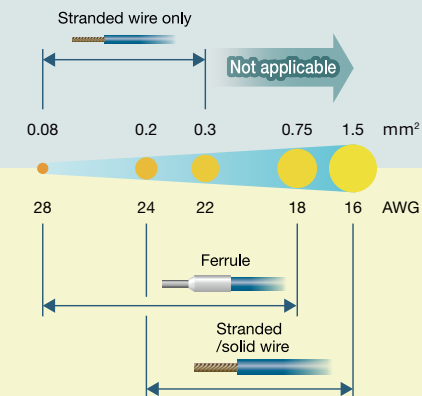


1 Push the release button and reinsert the wire

Just a single step

## Applicable wire sizes

Before (40-pin connector)



Spring clamp terminal block

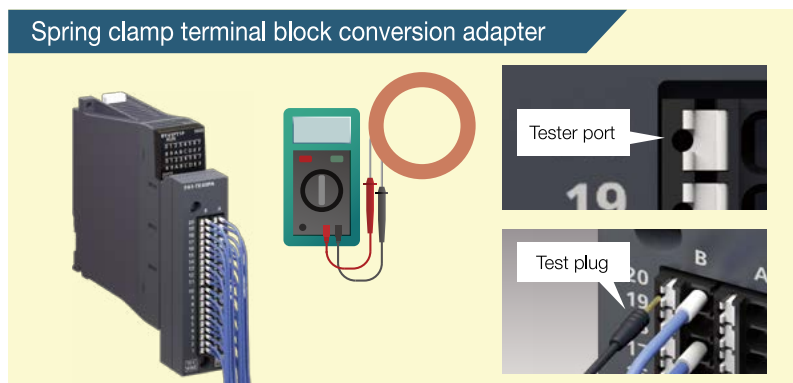
# Streamline startup and maintenance

A tester port is provided for continuity check, enabling reduction in time required for startup and maintenance. (The test plug is the reference product.)

Before (40-pin connector)



Spring clamp terminal block conversion adapter

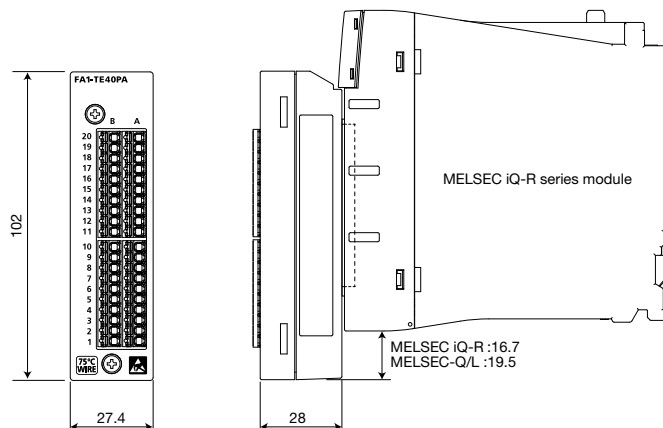


## Connection diagram

Spring clamp terminal block	40-pin connector	Spring clamp terminal block	40-pin connector
B20	B20	A20	A20
B19	B19	A19	A19
B18	B18	A18	A18
B17	B17	A17	A17
B16	B16	A16	A16
B15	B15	A15	A15
B14	B14	A14	A14
B13	B13	A13	A13
B12	B12	A12	A12
B11	B11	A11	A11
B10	B10	A10	A10
B9	B9	A9	A9
B8	B8	A8	A8
B7	B7	A7	A7
B6	B6	A6	A6
B5	B5	A5	A5
B4	B4	A4	A4
B3	B3	A3	A3
B2	B2	A2	A2
B1	B1	A1	A1

## Dimensions

Schematic diagram of connection to MELSEC iQ-R series module (Unit: mm)



■ Applicable modules of Mitsubishi Electric MELSEC series programmable controllers

MELSEC series	Input module		Output module		High-speed counter module	Positioning module	
MELSEC iQ-R series	RX41C4	RX61C6HS	RY41NT2P	RY41NT2H	RD62P2	RD75P2	
	RX41C6HS	RX71C4	RY41PT1P	RY41PT2H	RD62P2E RD62D2		
MELSEC-Q series	QX41	QX71	QY41P	QY71	QD62	QD63P6	QD75P1/QD75P1N
	QX41-S1		QY41H		QD62E	QD64D2	QD75D2/QD75D2N
	QX41-S2				QD62D		QD70P4
MELSEC-L series	LX41C4		LY41NT1P		LD62		LD75P1
			LY41PT1P		LD62D		LD75D1 LD75P2

■ Specifications

Item		Specification				
Operating ambient temperature		0 to 55°C (when the extended temperature range base unit is not used) 0 to 60°C (when the extended temperature range base unit is used)				
Operating ambient humidity		5 to 95%RH, non-condensing				
Applicable wire	Without ferrule (stranded/solid wire)	0.2 to 1.5 mm <sup>2</sup> (24 to 16 AWG)				
	With ferrule (stranded wire)	Applicable wire size (mm <sup>2</sup> /AWG)	Applicable ferrule	Crimping tool	Manufacturer	
		0.25 / 24	Al 0,25-8 YE	CRIMPFOX 6	PHOENIX CONTACT GmbH & Co. KG	
		0.3, 0.34 / 22	Al 0,34-8 TQ			
		0.5 / 20	Al 0,5-8 WH			
		0.75 / 18	Al 0,75-8 GY			
		0.08 to 0.34 / 28 to 22	216-302	206-220	WAGO Kontakttechnik GmbH & Co. KG	
		0.34 / 24, 22	216-302	206-1204		
		0.5 / 22, 20	216-201			
	0.75 / 20, 18	216-202				
External dimensions		27.4 (W) × 102 (H) × 28 (D) mm				
Weight		Approx. 100 g				

■ Product line


Name	Model	Remarks
Spring clamp terminal block conversion adapter	FA1-TE40PA	Adapter, mounting bracket, mounting screws

■ Product list

Name	Model	Remarks
Spring clamp terminal block conversion adapter	FA1-TE2SV16XY	16 points , installation direction : verrical
	FA1-TE2SD32XY	32 points , installation direction : verrical / horizontal
	FA1-TE2SV20P	General-purpose , 20 points , installation direction : verrical
	FA1-TE2SV40P	General-purpose , 40 points , installation direction : verrical / horizontal
Common terminal block	FA1-TE2SV40EX	40 points , installation direction : verrical
Connection cable*	FA-CBL05FMV	For sink/source interface
	FA-CBL05FMVE	For negative common input

\* These are a few examples of connection cables. Various cables such as ones with different lengths, sink/source type cables, and branch cables are also available. Cable models depend on the applicable programmable controllers or cable lengths. For details, check our website or selection tool.

■ Reference product

Item	Specification
Name	Test plug
Model	MPS-MT 1-S
Manufacturer	PHOENIX CONTACT GmbH & Co. KG
Shape	
Test pin	Dia. 1.0 mm
Socket*	Dia. 2.0 mm
Cable length	150 mm

\* Socket to insert the test lead of the tester

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