MITSUBISHI ELECTRIC ENGINEERING

Junction Terminal Block Spring Clamp Terminal Type

16/20/32/40 points, common terminal block

New Product Release | No. 23-01E

Improved building work of control panel

Time and wire saving

Less cost and time
for wiring by using
a dedicated cable

Various products available

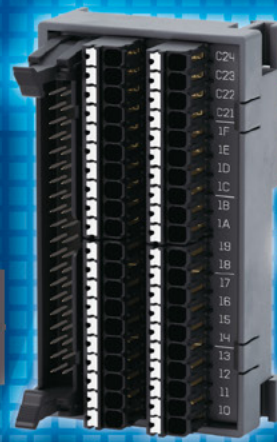Wide variety
of connection devices

Space saving

Effective use
of space
in the control panel

A junction terminal block
can be installed vertically and
horizontally on the DIN rail

MELSEC iQ-R series
Input module
40-pin connector

RX41C4

FAgoods
dedicated cable

FA-CBL**FMV

FAgoods junction terminal block
Input/output 32 points, 24VDC

FA1-TE2SD32XY

FAgoods Products **e-F@ctory**

IT system

Edge computing

Production site

wire-saving and
process time reduction
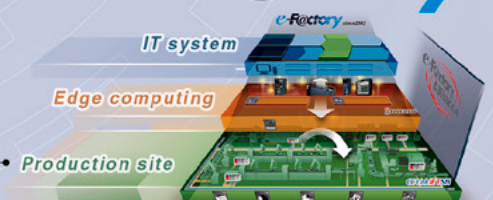
Source: Mitsubishi Electric Corporation

MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED

Features of spring clamp terminal specification

Easy wiring | Stable connection | Less maintenance

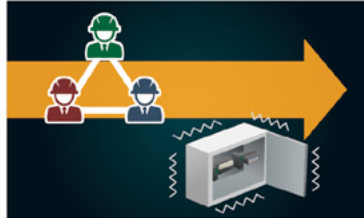| Screw tightening	Round crimp terminal	
Spring clamp type	Ferrule	Reduced by 22%
	Stranded /solid wire	Reduced by 52%
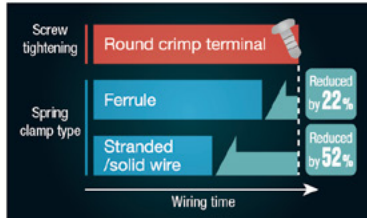
Wiring time →

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)

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

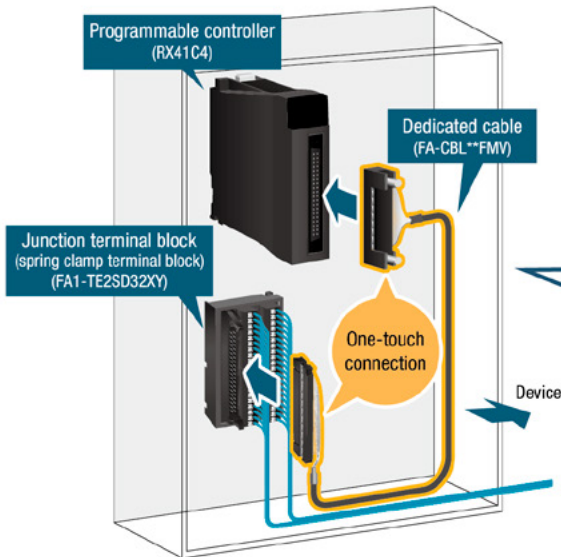**Screw tightening during maintenance is not required, reducing work load of workers. Rewiring work is also facilitated by push-in connection.**

Less cost and time for wiring by using a dedicated cable

Dedicated cables with connectors supporting each connected device are available.
Using a dedicated cable reduces wiring time required for each point.

Programmable controller (RX41C4)

Dedicated cable (FA-CBL**FMV)

Junction terminal block (spring clamp terminal block) (FA1-TE2SD32XY)

One-touch connection

Device

### Wiring image (when a 32-point module is used)

▶ Connecting to the programmable controller side (FCN connector)

1) Insert the connector.   2) Fix two locations.   → Connected
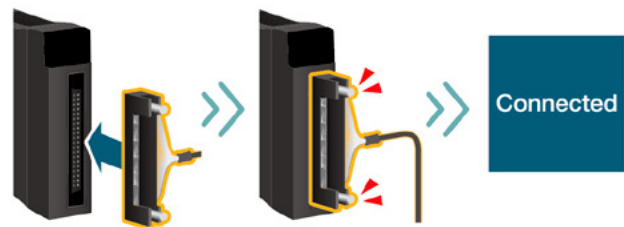
▶ Connecting to the terminal block side (MIL connector)

1) Insert the connector.

Push the connector as far as it will go.   → Connected

Using a dedicated cable easily reduces wiring time.

	Number of points	Wiring time	Wiring time
Spring clamps on both sides	32	About 16 minutes* (about 30s/point)	Approx. 12s* — Reduced by approx. 99%
Screws on both sides	32	About 19 minutes* (about 35s/point)	

*Result of in-house testing

No need for wiring check
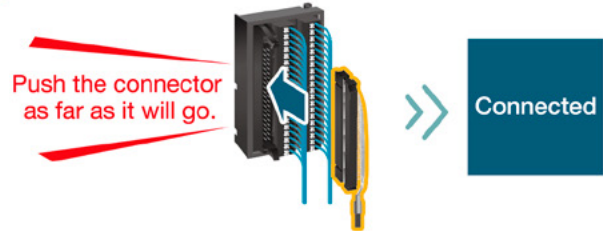
No need for wiring check

Wiring check per point, which is required for constructed cables, is not required.

Cable length customization

The cable length can be customized.
(For applicable cables and the maximum cable length, please consult your local Mitsubishi representative.)

MELSEC series programmable controllers, CNCs, non-Mitsubishi PLCs are supported

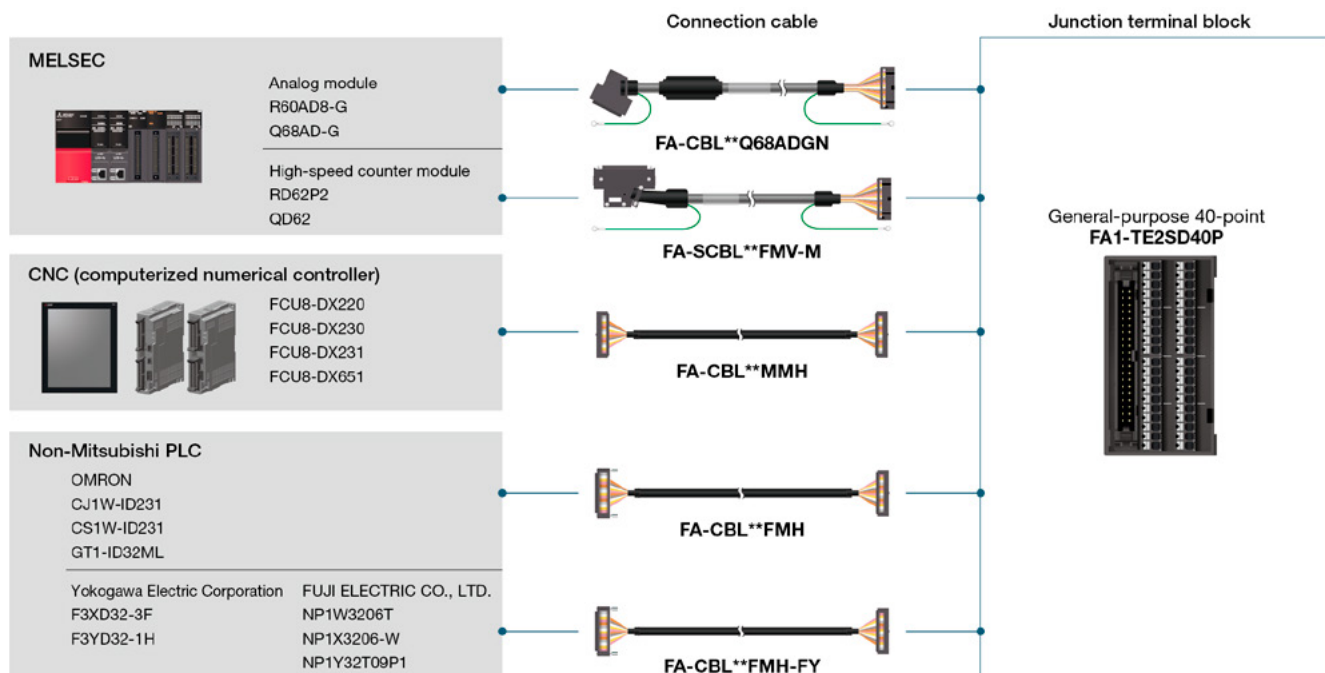Various programmable controller modules and CNCs are available.

Lineup

Junction terminal block				Common terminal block
32 points	16 points	40 points	20 points	20 points + 20 points

FA1-TE2SD32XY
Installation direction: Vertical horizontal

FA1-TE2SV16XY
Installation direction: Vertical

FA1-TE2SD40P
Installation direction: Vertical horizontal

FA1-TE2SV20P
Installation direction: Vertical

FA1-TE2SV40EX
Installation direction: Vertical

Mitsubishi Electric

MELSEC iQ-R series	
MELSEC iQ-F series	
MELSEC-Q series	Input/output/I/O combined
MELSEC-L series	
MELSEC-F series	
CC-Link family	

Mitsubishi Electric

MELSEC iQ-R series	
MELSEC iQ-F series	Input/output/
MELSEC-Q series	I/O combined/analog/
MELSEC-L series	high-speed counter
MELSEC-F series	
CC-Link family	Input/output/I/O combined
CNC (computerized numerical controller)*	Remote I/O

OMRON Corporation*

CJ1/CS1/DRT2/GT1/SRT2	Input/output

Yokogawa Electric Corporation*

FA-M3	Input/output

FUJI ELECTRIC CO., LTD.*

MICREX-SX	Input/output

*: FA1-TE2SD40P only

Installing the common terminal block next to the junction terminal block allows wiring common terminals easily.

More connection destinations available by using suitable cables

Various connection cables connecting MELSEC series modules, CNCs (computerized numerical controllers), and non-Mitsubishi PLCs are available.
Using a cable that supports a connected device achieves the following: "Expanding usage" and "Reducing wiring time with one-touch connection"

[Connection example using 40-point junction terminal block]
The following connected devices are used as an example. For details, refer to the selection charts on pages 6 to 9.

Connection cable	Junction terminal block

MELSEC

Analog module
R60AD8-G
Q68AD-G
→ FA-CBL**Q68ADGN

High-speed counter module
RD62P2
QD62
→ FA-SCBL**FMV-M

CNC (computerized numerical controller)
FCU8-DX220
FCU8-DX230
FCU8-DX231
FCU8-DX651
→ FA-CBL**MMH

Non-Mitsubishi PLC
OMRON
CJ1W-ID231
CS1W-ID231
GT1-ID32ML
→ FA-CBL**FMH

Yokogawa Electric Corporation
F3XD32-3F
F3YD32-1H

FUJI ELECTRIC CO., LTD.
NP1W3206T
NP1X3206-W
NP1Y32T09P1
→ FA-CBL**FMH-FY

General-purpose 40-point
FA1-TE2SD40P

Effective use of space in the control panel

To use dead space in the control panel, the junction terminal block can be installed in both vertical and horizontal positions.
Space above and below the DIN rail, which can often be dead space, is effectively used by installing the junction terminal block in the vertical position.

One junction terminal block offers vertical and horizontal installation positions
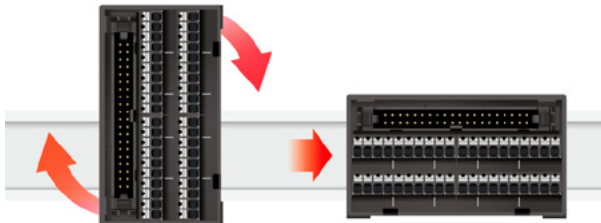
It needed to select a junction terminal block in accordance with the installation position, but now one junction terminal block supports the both installation positions (vertical and horizontal positions).
Model: **FA1-TE2SD40P**, **FA1-TE2SD32XY**

Effective use of dead space in the control panel
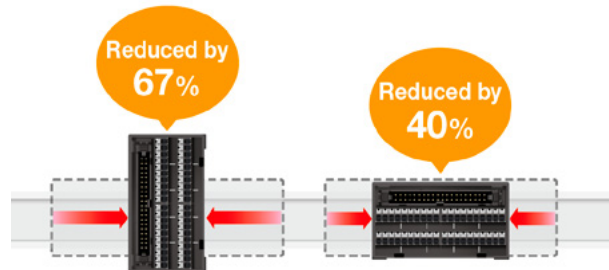
The installation width is reduced by approx. 67% (vertical type) and approx. 40% (horizontal type) comparing to our screw terminal block (7mm pitch).
Model: **FA1-TE2SD40P**, **FA1-TE2SD32XY**

Installation according to space in the control panel

When the horizontal space is tight
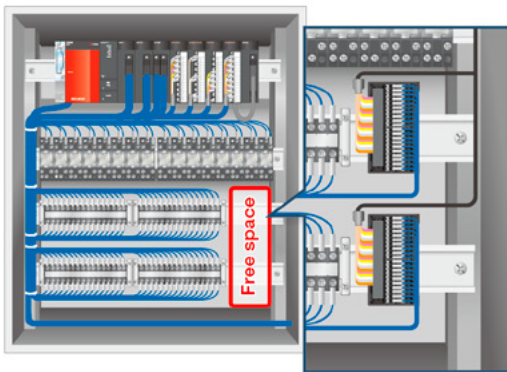
When the vertical space is tight
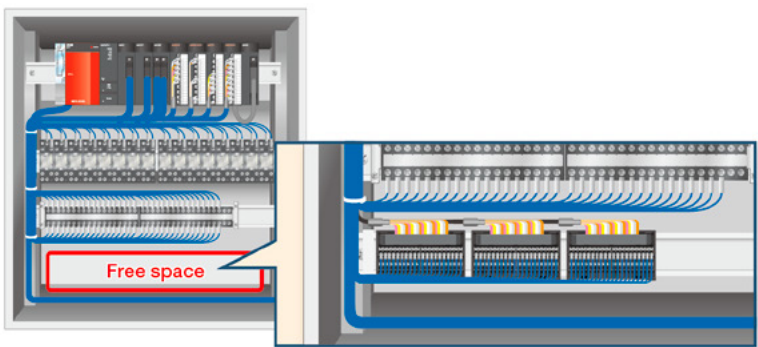
Have you had trouble with installing or relocating the modules in the control panel, and have you placed the modules in the side space of the control panel or on the doors?
A terminal block that offers a choice of installation positions allows you to use dead space.
Also, you just need to order one model so that it will enhance the maintainability.

Organizing the inside of the control panel neatly using the spring clamp terminal type
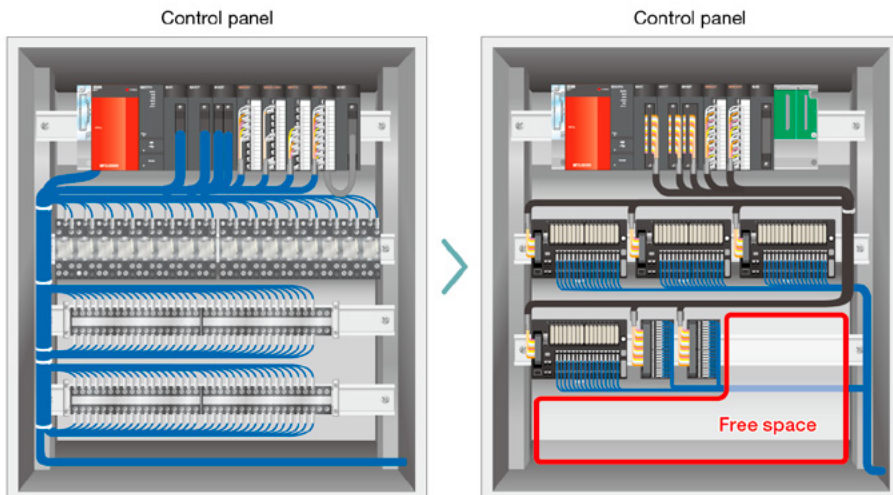
Replacing junction terminal blocks (screw terminal type on the both sides) and single relay modules with spring clamp terminal type junction terminal blocks makes free space. Thus, the modules do not need to be installed in the side space of the control panel or on the inside of the doors when relocating the modules in the control panel.

All devices in the control panel support the spring clamp terminal type products manufactured by Mitsubishi Electric group

To build a control panel, all devices can be selected from Mitsubishi Electric group ones, for example, control devices and end devices such as terminal blocks and sensors.

Mitsubishi Electric group offers a wide selection of products, supports building a control panel, and leads to smart factory.

▼ Products manufactured by Mitsubishi Electric

Programmable controller MELSEC series

Network communication device CC-Link family

Inverter FREQROL series

Magnetic starter MSO-T series

Magnetic contactor/ Magnetic relay S-T series

Low-voltage circuit breaker WS-V series

Circuit protector CP30-BA

▼ Products manufactured by Mitsubishi Electric Engineering

Junction terminal block

The junction terminal block helps signal transmissions between a programmable controller and devices such as sensors in connection methods suitable for applications.

The most suitable model can be selected from approx. 250 models according to system configuration.

Digital signal converter (terminal module)

Digital signals from a programmable controller can be converted to signals suitable for the connected devices such as a magnetic starter (example: from 24VDC signal to 200VAC signal).

One terminal module supports connections with multiple devices with different voltage loads.

Analog signal converter

Analog signals from the connected devices such as sensors can be converted to signals suitable for a programmable controller (example: from a temperature signal to a voltage signal).

Data from sensors can be visualized easily, and small-scale IoT can be introduced.

Selection charts
I/O module

Series	Programmable controller module model		Module model	Connection cable
MELSEC iQ-R series	RX40C7	Positive common	FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**TMV20
				FA-CBL**YM20
		Negative common	FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**YM20
	RX40C7-TS	Positive common	FA1-TE2SV16XY	FA1-CB1L**EM1F18
		Negative common	FA1-TE2SV16XY	FA1-CB1L**EM1F18
	RX40NC6B	Negative common	FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**TMV20
				FA-CBL**YM20
	RX41C4-TS	Positive common	FA1-TE2SV16XY	FA1-CB1L**EM2F34
		Negative common	FA1-TE2SV16XY	FA1-CB1L**EM2F34
	RX70C4	Positive common	FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**TMV20
				FA-CBL**YM20
		Negative common	FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**YM20
	RY40NT5P		FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**TMV20
				FA-CBL**YM20
	RY40NT5P-TS		FA1-TE2SV16XY	FA1-CB1L**EM1F18
	RY40PT5P-TS		FA1-TE2SV16XY	FA1-CB1L**EM1F18
	RY41NT2P-TS		FA1-TE2SV16XY	FA1-CB1L**EM2F34
	RY41PT1P-TS		FA1-TE2SV16XY	FA1-CB1L**EM2F34
	RH42C4NT2P		For the input side, refer to the specifications of the RX41C4. For the output side, refer to the specifications of the RY41NT2P.	
	RX41C4 RX41C6HS RX42C4	Positive common	FA1-TE2SV16XY	FA-CBL**FM2LV
				FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
		Negative common	FA1-TE2SD32XY	FA-CBL**FMVE
		Positive common/negative common shared	FA1-TE2SD40P	FA-CBL**FMV-M
	RX71C4 RX72C4 RX61C6HS	Positive common	FA1-TE2SV16XY	FA-CBL**FM2LV
				FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
		Negative common	FA1-TE2SD32XY	FA-CBL**FMVE
		Positive common/negative common shared	FA1-TE2SD40P	FA-CBL**FMV-M
	RY40PT5P RY40PT5B		FA1-TE2SV16XY	FA-CBL**M20
				FA-CBL**TMV20
				FA-CBL**YM20
	RY41NT2P RY42NT2P RY41NT2H		FA1-TE2SV16XY	FA-CBL**FM2LV
				FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
	RY41PT1P RY42PT1P RY41PT2H		FA1-TE2SV16XY	FA-CBL**FM2LV
				FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
MELSEC iQ-F series	FX5-C16EX/D	Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C16EX/DS	Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
		Source input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C16EYT/D	Sink output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C16EYT/DSS	Source output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C32ET/DSS-TS	Sink input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source output	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
	FX5-C32ET/DS-TS	Sink output	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Sink input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
	FX5-C32EX/D	Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C32EX/DS	Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
		Source input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C32EX/DS-TS	Sink input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
	FX5-C32EYT/D	Sink output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C32EYT/DSS	Source output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20
				FA-FXCBL**MMH20
	FX5-C32EYT/DSS-TS	Source output	FA1-TE2SV16XY	FA2-CB1L**EM1F18
	FX5-C32EYT/D-TS	Sink output	FA1-TE2SV16XY	FA2-CB1L**EM1F18
	FX5UC-32MT/DSS-TS	Sink input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source output	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
	FX5UC-32MT/DS-TS	Sink output	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Sink input	FA1-TE2SV16XY	FA2-CB1L**EM1F18
		Source input	FA1-TE2SV16XY	FA2-CB1L**EM1F18

Programmable controller module model			Module model	Connection cable
MELSEC iQ-F series	FX5UC-32MT/D FX5-C32ET/D	Sink output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
		Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
	FX5UC-64MT/D FX5UC-96MT/D	Sink output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
		Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
	FX5UC-32MT/DSS FX5-C32ET/DSS	Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
		Source output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
		Source input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
	FX5UC-64MT/DSS FX5UC-96MT/DSS	Sink input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
		Source output	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
		Source input	FA1-TE2SV16XY	FA2-CB1LT**MM1H20 FA-FXCBL**MMH20
MELSEC-Q series	QX70	Positive common	FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**TMV20 FA-CBL**YM20
		Negative common	FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**YM20
	QX80	Negative common	FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**TMV20 FA-CBL**YM20
	QY70		FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**YM20
	QY71		FA1-TE2SV16XY	FA-CBL**FM2LV FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
	QY80		FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**TMV20 FA-CBL**YM20
	QY81P		FA1-TE2SV16XY	FA-CBL**DM2FY
			FA1-TE2SD32XY	FA-CBL**DMFY
	QY82P		FA1-TE2SV16XY	FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
	QX40 QX40-S1	Positive common	FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**TMV20 FA-CBL**YM20
	QX41 QX42 QX41-S1 QX41-S2 QX42-S1	Positive common	FA1-TE2SV16XY	FA-CBL**FM2LV FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
		Positive common/negative common shared	FA1-TE2SD40P	FA-CBL**FMV-M
	QX71 QX72	Positive common	FA1-TE2SV16XY	FA-CBL**FM2LV FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
		Negative common	FA1-TE2SD32XY	FA-CBL**FMVE
		Positive common/negative common shared	FA1-TE2SD40P	FA-CBL**FMV-M
	QX81 QX81-S2	Negative common	FA1-TE2SD32XY	FA-CBL**DMFX
	QX82 QX82-S1	Negative common	FA1-TE2SV16XY	FA-CBL**FM2LV FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMVE
			FA1-TE2SD40P	FA-CBL**FMV-M
	QY40P QY50		FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**TMV20 FA-CBL**YM20
	QY41P QY41H QY42P		FA1-TE2SV16XY	FA-CBL**FM2LV FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
	QH42P QX41Y41P		For the input side, refer to the specifications of the QX41. For the output side, refer to the specifications of the QY41P.	
MELSEC-L series	LH42C4NT1P		For the input side, refer to the specifications of the LX41C4. For the output side, refer to the specifications of the LY41NT1P.	
	LH42C4PT1P		For the input side, refer to the specifications of the LX41C4. For the output side, refer to the specifications of the LY41PT1P.	
	LX40C6	Positive common	FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**YM20
		Negative common	FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**YM20
	LY40NT5P		FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**YM20
	LY40PT5P		FA1-TE2SV16XY	FA-CBL**M20 FA-CBL**YM20
	LX41C4 LX42C4	Positive common	FA1-TE2SV16XY	FA-CBL**FM2LV FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
		Negative common	FA1-TE2SD32XY	FA-CBL**FMVE
		Positive common/negative common shared	FA1-TE2SD40P	FA-CBL**FMV-M

Connector terminal block conversion modules (table continued)

Series	Programmable controller module model		Module model	Connection cable
MELSEC-L series	LY41NT1P / LY42NT1P		FA1-TE2SV16XY	FA-CBL**FM2LV
				FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
	LY41PT1P / LY42PT1P		FA1-TE2SV16XY	FA-CBL**FM2LV
				FA-CBL**FM2V
			FA1-TE2SD32XY	FA-CBL**FMV
			FA1-TE2SD40P	FA-CBL**FMV-M
	L02SCPU / L02SCPU-P / L02CPU / L02CPU-P / L06CPU / L06CPU-P / L26CPU / L26CPU-P / L26CPU-BT / L26CPU-PBT		FA1-TE2SV20P	FA-SCBL**FM2LV-LB
			FA1-TE2SD40P	FA-SCBL**FMV-M
MELSEC-F series	FX2NC-16EX	Sink input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-16EYT	Sink output	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-16EYT-DSS	Source output	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-32EX	Sink input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-32EYT	Sink output	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-32EYT-DSS	Source output	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX3GC-32MT/D / FX3UC-16MT/D / FX3UC-32MT/D / FX3UC-32MT-LT / FX3UC-32MT-LT2 / FX3UC-64MT/D / FX3UC-96MT/D	Sink output	FA1-TE2SV16XY	FA-FXCBL**MMH20
		Sink input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX3GC-32MT/DSS	Sink input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX3UC-16MT/DSS	Source output	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX3UC-32MT/DSS	Source input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX3UC-64MT/DSS / FX3UC-96MT/DSS	Sink input	FA1-TE2SV16XY	FA-FXCBL**MMH20
		Source output	FA1-TE2SV16XY	FA-FXCBL**MMH20
		Source input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-16EX-DS	Sink input	FA1-TE2SV16XY	FA-FXCBL**MMH20
	FX2NC-32EX-DS	Source input	FA1-TE2SV16XY	FA-FXCBL**MMH20

CC-Link module

Category	Programmable controller module model		Module model	Connection cable
CC-Link IE TSN	NZ2GN2S1-16D	Positive common	FA1-TE2SV16XY	FA3-CB1L**EM1F18X
	NZ2GN2S1-16T		FA1-TE2SV16XY	FA3-CB1L**EM1F18Y
	NZ2GN2S1-16TE		FA1-TE2SV16XY	FA3-CB1L**EM1F18Y
	NZ2GN2S1-32D	Positive common	FA1-TE2SV16XY	FA3-CB1L**EM2F34X
	NZ2GN2S1-32DT	Output side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
		Input side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2GN2S1-32DTE	Output side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
		Input side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2GN2S1-32T		FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2GN2S1-32TE		FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2GNCF1-32D	Positive common	FA1-TE2SV16XY	FA-CBL**FM2H
				FA-CBL**FM2LH
			FA1-TE2SD32XY	FA-CBL**FMH
				FA-FCBL**FMH
		Common	FA1-TE2SD40P	FA-CBL**FMH-M
	NZ2GNCF1-32T	Sink output	FA1-TE2SV16XY	FA-CBL**FM2H
				FA-CBL**FM2LH
			FA1-TE2SD32XY	FA-CBL**FMH
				FA-FCBL**FMH
			FA1-TE2SD40P	FA-CBL**FMH-M
CC-Link IE Field Basic	NZ2MF2S1-32D	Positive common	FA1-TE2SV16XY	FA3-CB1L**EM2F34X
	NZ2MF2S1-32DT	Output side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
		Input side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2MF2S1-32DTE1	Output side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
		Input side	FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2MF2S1-32T		FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
	NZ2MF2S1-32TE1		FA1-TE2SV16XY	FA3-CB1L**EM2F34Y
CC-Link IE Field	NZ2GFCF1-32D	Positive common	FA1-TE2SV16XY	FA-CBL**FM2H
				FA-CBL**FM2LH
			FA1-TE2SD32XY	FA-CBL**FMH
				FA-FCBL**FMH
		Common	FA1-TE2SD40P	FA-CBL**FMH-M
	NZ2GFCF1-32DT	I/O combined	FA1-TE2SD40P	FA-CBL**FMH-M
	NZ2GFCF1-32T	Sink output	FA1-TE2SV16XY	FA-CBL**FM2H
				FA-CBL**FM2LH
			FA1-TE2SD32XY	FA-CBL**FMH
				FA-FCBL**FMH
			FA1-TE2SD40P	FA-CBL**FMH-M

Programmable controller module model			Module model	Connection cable
CC-Link	AJ65SBTCF1-32D	Positive common	FA1-TE2SV16XY	FA-CBL**FM2H
				FA-CBL**FM2LH
			FA1-TE2SD32XY	FA-CBL**FMH
				FA-FCBL**FMH
		Common	FA1-TE2SD40P	FA-CBL**FMH-M
	AJ65SBTCF1-32DT	I/O combined	FA1-TE2SD40P	FA-CBL**FMH-M
	AJ65SBTCF1-32T AJ65BTC1-32T	Sink output	FA1-TE2SV16XY	FA-CBL**FM2H
				FA-CBL**FM2LH
			FA1-TE2SD32XY	FA-CBL**FMH
				FA-FCBL**FMH
			FA1-TE2SD40P	FA-CBL**FMH-M
	AJ65VBTCF1-32DT1	I/O combined	FA1-TE2SD40P	FA-CBL**FMH-M

Analog module

Programmable controller module model		Module model	Connection cable
MELSEC iQ-R series	R60AD6-DG	FA1-TE2SD40P	FA-CBL**Q66ADDG
	R60AD8-G R60AD16-G	FA1-TE2SD40P	FA-CBL**Q68ADGN
	R60ADI8	FA1-TE2SV20P	FA-CBL**Q68ADT / FA-Q6TCA + FA-CBL**Q68ADA
	R60ADV8	FA1-TE2SV20P	FA-CBL**Q68ADT / FA-Q6TCA + FA-CBL**Q68ADA
	R60DA4	FA1-TE2SV20P	FA-CBL**Q64DAT
	R60DA8-G R60DA16-G	FA1-TE2SD40P	FA1-CBL**R60DA8G
	R60DAH4	FA1-TE2SV20P	FA-CBL**Q64DAT
	R60DAI8	FA1-TE2SV20P	FA-CBL**Q68DAT / FA-Q6TCA + FA-CBL**Q68DAA
	R60DAV8	FA1-TE2SV20P	FA-CBL**Q68DAT / FA-Q6TCA + FA-CBL**Q68DAA
MELSEC-Q series	Q62AD-DGH	FA1-TE2SV20P	FA-CBL**Q64DAT
	Q64DAN Q64DAH Q62DAN	FA1-TE2SV20P	FA-CBL**Q64DAT
	Q66AD-DG	FA1-TE2SD40P	FA-CBL**Q66ADDG
	Q66DA-G	FA1-TE2SD40P	FA-CBL**Q66DAG
	Q68AD-G	FA1-TE2SD40P	FA-CBL**Q68ADGN
	Q68ADI	FA1-TE2SV20P	FA-CBL**Q68ADT / FA-Q6TCA + FA-CBL**Q68ADA
	Q68ADV	FA1-TE2SV20P	FA-CBL**Q68ADT / FA-Q6TCA + FA-CBL**Q68ADA
	Q68DAIN	FA1-TE2SV20P	FA-CBL**Q68DAT / FA-Q6TCA + FA-CBL**Q68DAA
	Q68DAVN	FA1-TE2SV20P	FA-CBL**Q68DAT / FA-Q6TCA + FA-CBL**Q68DAA

High-speed counter module

Programmable controller module model		Module model	Connection cable
MELSEC iQ-R series	RD62P2 RD62D2 RD62P2E	FA1-TE2SD40P	FA-SCBL**FMV-M
MELSEC-L series	LD62 LD62D	FA1-TE2SD40P	FA-SCBL**FMV-M
MELSEC-Q series	QD62 QD62E QD62D	FA1-TE2SD40P	FA-SCBL**FMV-M

CNC (computerized numerical controller)

Remote I/O module model		Module model	Connection cable
M800W M80W	FCU8-DX220 FCU8-DX230 FCU8-DX231 FCU8-DX651	FA1-TE2SD40P	FA-CBL**MMH

Non-Mitsubishi PLC

Programmable controller module model		Module model	Connection cable
OMRON Corporation	CJ1W-ID231 CJ1W-ID261	FA1-TE2SD40P	FA-CBL**FMH
	CJ1W-ID232 CJ1W-ID262 CJ1W-ID233	FA1-TE2SD40P	FA-CBL**MMH-R
	CJ1W-MD261	FA1-TE2SD40P	FA-CBL**FMH
	CJ1W-MD263 CJ1W-MD563	FA1-TE2SD40P	FA-CBL**MMH-R
	CJ1W-OD231 CJ1W-OD261	FA1-TE2SD40P	FA-CBL**FMH
	CJ1W-OD232 CJ1W-OD233 CJ1W-OD262 CJ1W-OD263 CJ1W-OD234	FA1-TE2SD40P	FA-CBL**MMH-R
	CS1W-ID231 CS1W-ID261	FA1-TE2SD40P	FA-CBL**FMH
	CS1W-MD261 CS1W-MD262 CS1W-MD561	FA1-TE2SD40P	FA-CBL**FMH
	CS1W-OD231 CS1W-OD232 CS1W-OD261 CS1W-OD262	FA1-TE2SD40P	FA-CBL**FMH
	DRT2-ID32ML DRT2-ID32ML-1	FA1-TE2SD40P	FA-CBL**MMH-R
	DRT2-MD32ML DRT2-MD32ML-1	FA1-TE2SD40P	FA-CBL**MMH-R
	DRT2-OD32ML DRT2-OD32ML-1	FA1-TE2SD40P	FA-CBL**MMH-R
	GT1-ID32ML GT1-ID32ML-1	FA1-TE2SD40P	FA-CBL**FMH
	GT1-OD32ML GT1-OD32ML-1	FA1-TE2SD40P	FA-CBL**FMH
	SRT2-ID32ML SRT2-ID32ML-1	FA1-TE2SD40P	FA-CBL**MMH-R
	SRT2-MD32ML SRT2-MD32ML-1	FA1-TE2SD40P	FA-CBL**MMH-R
	SRT2-OD32ML SRT2-OD32ML-1	FA1-TE2SD40P	FA-CBL**MMH-R
Yokogawa Electric Corporation	F3WD64-3P F3WD64-4P	FA1-TE2SD40P	FA-CBL**FMH-FY
	F3XD32-3F F3XD32-4F F3XD32-5F F3XD64-3F F3XD64-4F F3XD64-6M	FA1-TE2SD40P	FA-CBL**FMH-FY
	F3YD32-1H F3YD32-1P F3YD32-1R F3YD32-1T F3YD64-1M F3YD64-1P F3YD64-1R	FA1-TE2SD40P	FA-CBL**FMH-FY
FUJI ELECTRIC CO., LTD.	NP1W3206T NP1W3206U NP1W6406T NP1W6406U	FA1-TE2SD40P	FA-CBL**FMH-FY
	NP1X3206-W NP1X3202-W NP1X6406-W	FA1-TE2SD40P	FA-CBL**FMH-FY
	NP1Y32T09P1 NP1Y32U09P1 NP1Y64T09P1 NP1Y64U09P1	FA1-TE2SD40P	FA-CBL**FMH-FY

■ Product specifications

| Item			FA1-TE2SD40P	FA1-TE2SV20P	FA1-TE2SD32XY	FA1-TE2SV16XY	FA1-TE2SV40EX
No. of points			40 points	20 points	32 points / 4 (24V) common points + 4 (0V) common points	16 points / 2 (24V) common points + 2 (0V) common points	20 common points + 20 common points
Rated voltage			24VDC (SELV and LIM or Class 2)				24VDC/100 to 240VAC (+10%, -15%)
Maximum operating voltage			30VDC (SELV and LIM or Class 2)				30VDC, 264VAC
Maximum operating current			Signal: 1A		Signal: 1A Common: 2A		Common: 6A
Terminal block (Spring clamp terminal block)	Number of terminals		40P	20P	40P	20P	40P
	Applicable wire	Without ferrule (stranded/solid wire)	0.2 to 1.5mm² (24 to 16AWG), copper wire with a temperature rating of 75°C or more				
		With ferrule (stranded/solid wire)	0.08 to 0.75mm² (28 to 18AWG), copper wire with a temperature rating of 75°C or more				
	Wire strip length		8mm				
Module installation	DIN rail		Applicable DIN rail: TH35-7.5Fe, TH35-7.5Al (IEC 60715 compliant)				
Withstand voltage			1250VAC for 1 minute (between all terminals and case)				3000VAC for 1 minute (between commons, between all terminals and case)
Insulation resistance			10MΩ or more (measured with 500VDC insulation resistance tester)				
Weight			Approx. 60g	Approx. 40g	Approx. 60g	Approx. 40g	Approx. 45g

■ External dimensions (unit: mm)

● FA1-TE2SD32XY/FA1-TE2SD40P
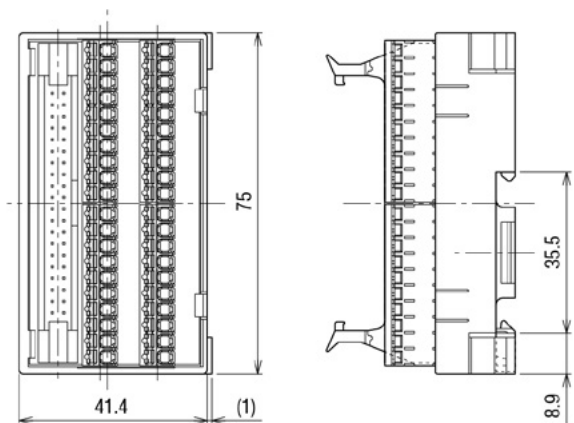
● FA1-TE2SV16XY/FA1-TE2SV20P
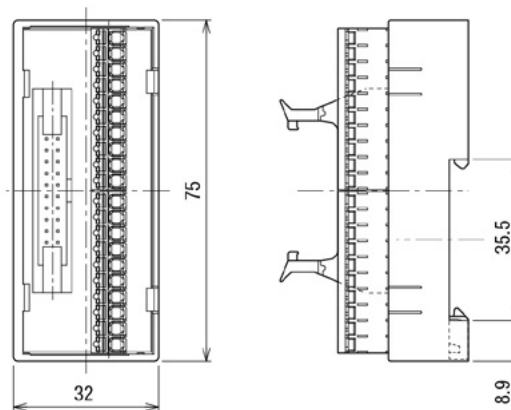
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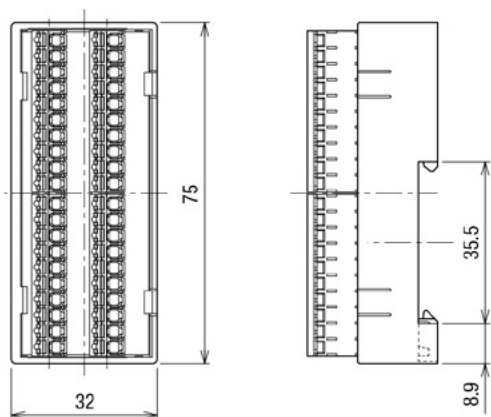
■ Product list

Junction terminal blocks — Spring clamp terminal type

Connected device	Shape	Specifications	Model
MELSEC iQ-R/MELSEC iQ-F/MELSEC-Q/MELSEC-L/ MELSEC-F series, CC-Link family		Input/output 32 points, 24VDC	FA1-TE2SD32XY
		Input/output 16 points, 24VDC	FA1-TE2SV16XY
MELSEC iQ-R/MELSEC iQ-F/MELSEC-Q/MELSEC-L/ MELSEC-F series, CC-Link family, CNCs (computerized numerical controllers), non-Mitsubishi PLCs (OMRON, Yokogawa Electric, FUJI ELECTRIC)		Input/output 40 points, 24VDC	FA1-TE2SD40P
		Input/output 20 points, 24VDC	FA1-TE2SV20P
-	* The image is FA1-TE2SD32XY.	Common terminal block 40 points, 24VDC/100 to 240VAC	FA1-TE2SV40EX

Connection cables

| Connected device	Connection type		Cable length	Model
	Programmable controller side	Junction terminal block side		
MELSEC iQ-R series (I/O module)	Spring clamp terminal block	MIL20P	1/2/3m	FA1-CB1L**EM1F18
		MIL20P × 2	1/2/3m	FA1-CB1L**EM2F34
MELSEC iQ-F/MELSEC-F series (I/O module)	Spring clamp terminal block	MIL20P	1/2/3m	FA2-CB1L**EM1F18
	MIL20P	MIL20P	1/2/3m	FA2-CB1LT**MM1H20
				FA2-CB1LT**MM1H20E
MELSEC iQ-R/MELSEC-Q/MELSEC-L series (I/O module)	FCN40P	MIL40P	0.5/1/2/3/5/8/10/15/20m	FA-CBL**FMV
			0.5/1/2/3m	FA-CBL**FMVE
	D-Sub37P	MIL40P	0.5/1/2/3/5/10m	FA-CBL**DMFX
				FA-CBL**DMFY
	FCN40P	MIL20P × 2	0.6/1/1.5/2/3/5/10m	FA-CBL**FM2V
			0.6/1/2/3/5/10m	FA-CBL**FM2LV
	D-Sub37P	MIL20P × 2	2m	FA-CBL**DM2FY
	FCN40P	MIL40P	0.5/1/2/3/5m	FA-CBL**FMV-M
	Discrete cable	MIL20P	0.6/1/2m	FA-CBL**M20
	Y terminal	MIL20P	1/2/3/5m	FA-CBL**YM20
MELSEC iQ-R/MELSEC-Q/MELSEC-L series (High-speed counter module)	FCN40P	MIL40P	0.5/1/1.5/2m	FA-SCBL**FMV-M
MELSEC iQ-R/MELSEC-Q series (Analog module)	Screw terminal block	MIL20P	0.6/1/2/3m	FA-CBL**TMV20
	FCN40P	MIL20P	0.5/1/2/3m	FA1-CBL**R60DA8G
				FA-CBL**Q68ADGN
				FA-CBL**Q66ADDG
				FA-CBL**Q66DAG
	Screw terminal block	MIL20P	2/3m	FA-CBL**Q64ADT
				FA-CBL**Q64DAT
			0.5/2/3m	FA-CBL**Q68ADT
				FA-CBL**Q68DAT
	20P connector	MIL20P	2m	FA-CBL**Q68ADA
			0.5/2m	FA-CBL**Q68DAA
MELSEC-L series (Built-in I/O of CPU module)	FCN40P	MIL20P × 2	1m	FA-SCBL**FM2LV-LB
CNC (computerized numerical controller) (Remote I/O module)	MIL40P	MIL40P	0.5/1/2/3/5/8/10m	FA-CBL**MMH
CC-Link IE TSN	Spring clamp terminal block	MIL20P	1/2/3m	FA3-CB1L**EM1F18X
				FA3-CB1L**EM1F18Y
CC-Link IE TSN CC-Link IE Field Basic	Spring clamp terminal block	MIL20P × 2	1/2/3m	FA3-CB1L**EM2F34X
				FA3-CB1L**EM2F34Y
CC-Link IE TSN CC-Link Modules manufactured by OMRON	FCN40P	MIL40P	0.5/1/2/3/5m	FA-CBL**FMH
CC-Link IE TSN CC-Link IE Field CC-Link	FCN40P	MIL40P	0.5/1/2/3m	FA-FCBL**FMH
	FCN40P	MIL20P × 2	0.3/1/2/3m 1/2/3/5m	FA-CBL**FM2H
				FA-CBL**FM2LH
	FCN40P	MIL40P	0.5m	FA-CBL**FMH-M
Modules manufactured by OMRON	MIL40P	MIL40P	0.5/2m	FA-CBL**MMH-R
Modules manufactured by Fuji Electric FA Components & Systems and Yokogawa Electric	FCN40P	MIL40P	0.5/1/2/3/5m	FA-CBL**FMH-FY

Conversion adapter

Connected device	Specifications	Model
MELSEC iQ-R/MELSEC-Q series analog module	18 points, conversion of screw terminal block to connector	FA-Q6TCA

■ Related catalogs

Digest edition

Time and Wire Saving Devices
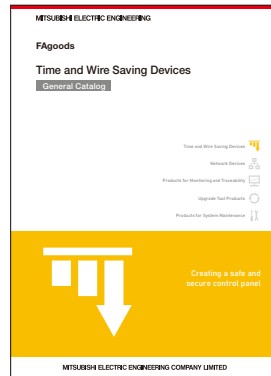
■ Related leaflets

Digital Signal Converters (Terminal Modules)
(MEIC224E·226)

Analog Signal Converters
(MEIC220E·21Y)

Cable with Spring Clamp Terminal Block
(MEIC218E·218)

Spring Clamp Terminal Block Conversion Adapter
(MEIC196E·209)

MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED

NAGOYA ENGINEERING OFFICE | 1-9, Daiko-Minami, 1-Chome, Higashi-ku, Nagoya, Aichi 461-0047 Japan

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