Programmable controller source output relay isolation socket-type N/O contact output module

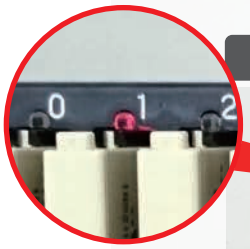
New relay terminal module is now available for the programmable controller source output modules.

New Release

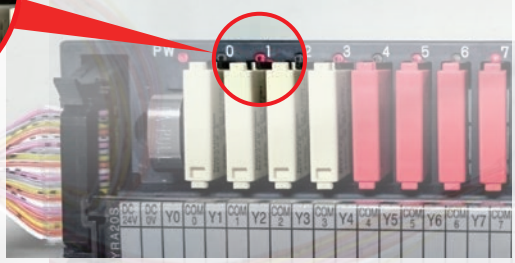
■ Features

- The new relay terminal module can be connected to the programmable controller source output modules.
- The new relay terminal module has sockets, so existing modules can be replaced on a per point basis, allowing easy maintenance.
- The new relay terminal module adopts the independent common method, so transistors and SSR output modules (sold separately) can be replaced with existing modules and used together.
- The on/off status and output status of the programmable controller can be checked with LED indication.
- The new relay terminal module resists temperatures up to -20ºC.

■ Functions

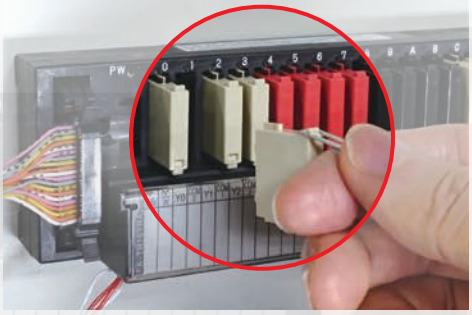


LED indication



The on/off status and output status of the programmable controller can be checked with LED indication!

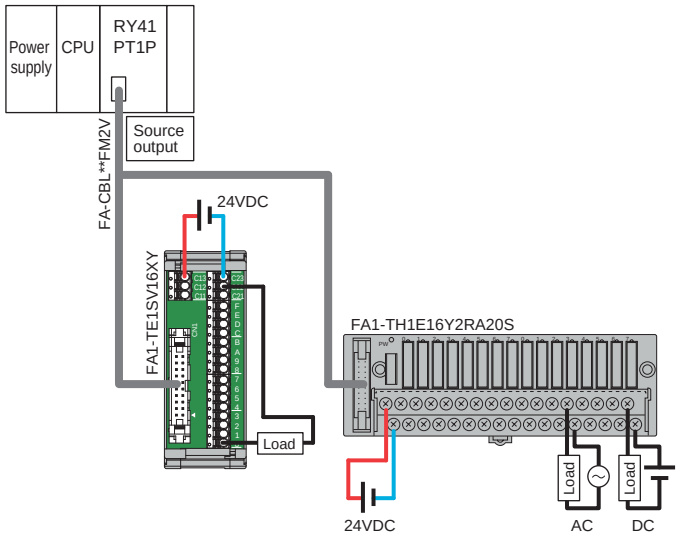
Relay module replaceable



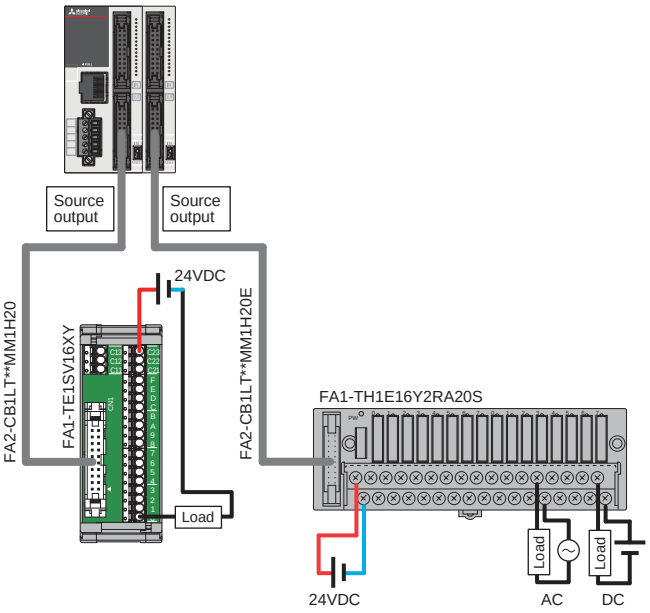
Life-expired relays can be replaced on a per point basis, allowing easy maintenance!

Example of use

(MELSEC iQ-R series)



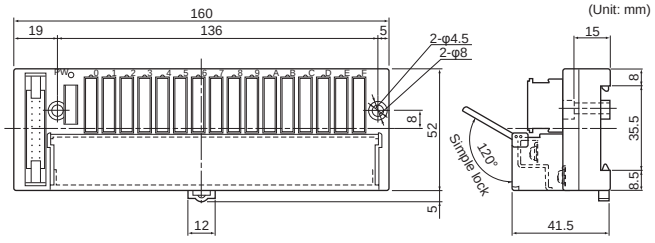
(MELSEC iQ-F series)



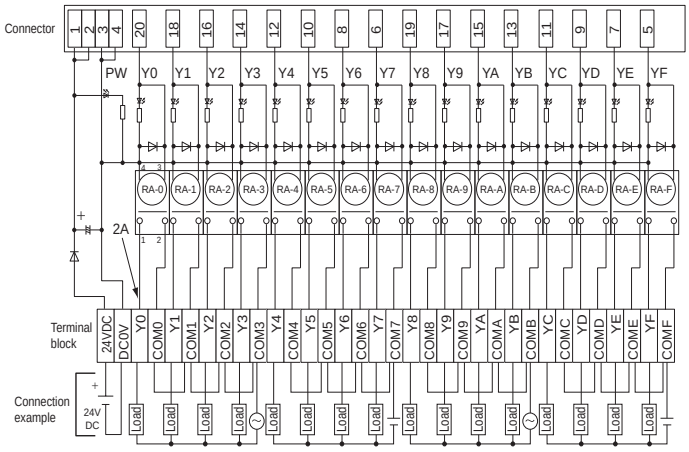
Performance specifications

Item \ Model	Specifications
	FA1-TH1E16Y2RA20S
Number of points	16 points
Rated switching voltage/current	Voltage: 24VDC, 100 to 240VAC (+10%, -15%), 50/60Hz Current: 2A/point (resistance load, COSΦ=1)
Minimum switching load	5VDC, 1mA
Terminal screw	M3 spring-up screw, 7.62 mm-pitch
Wiring method for common	Independent common
Module replacement count	50 times
Module mixing	Supported
Electrical life	100000 times or more at rated switching voltage/current
Mechanical life	20 million times or more
Maximum switching frequency	1800 times/hour (ON for 1 second or longer, OFF for 1 second or longer)
Response time: OFF → ON	10ms or less (excluding programmable controller response time)
Response time: ON → OFF	12ms or less (excluding programmable controller response time)

External dimensions

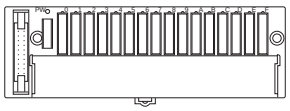


Wiring diagram

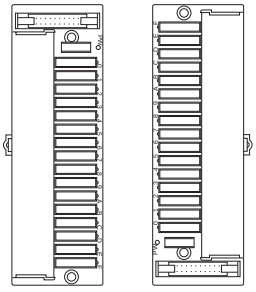


Module installation direction

Horizontal installation



Vertical installation



Note:
Do not install the module in any direction other than the above.

■Connectable programmable controllers

●FA1-TH1E16Y2RA20S

Programmable controller type	Input/Output	Programmable controller module model (Note 1)		Connection cable model
MELSEC iQ-R series	Output	RY41PT1P, RY42PT1P		FA-CBL**FM2V(Note 2), FA-CBL**FM2LV(Note 2)
		RY40PT5P, RY40PT5B		FA-CBL**M20, FA-CBL**YM20, FA-CBL**TMV20
MELSEC-Q series	Output	QY81P		FA-CBL**DM2FY(Note 2)
		QY82P		FA-CBL**FM2V(Note 2), FA-CBL**FM2LV(Note 2)
		QY80P		FA-CBL**M20, FA-CBL**YM20, FA-CBL**TMV20
MELSEC-L series	Output	LY41PT1P, LY42PT1P		FA-CBL**FM2V(Note 2), FA-CBL**FM2LV(Note 2)
	Combined	LH42C4PT1P	Output	FA-CBL**FM2V(Note 2), FA-CBL**FM2LV(Note 2)
MELSEC iQ-F series	Combined	FX5UC-32MT/DSS, FX5UC-64MT/DSS, FX5UC-96MT/DSS, FX5-C32ET/DSS	Output	FA2-CB1LT**MM1H20E
	Output	FX5-C16EYT/DSS, FX5-C32EYT/DSS		FA2-CB1LT**MM1H20E

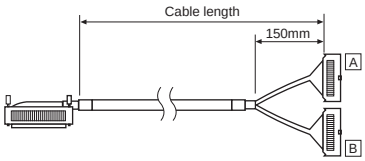
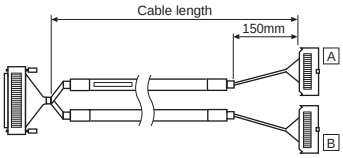
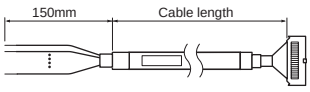
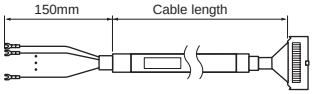
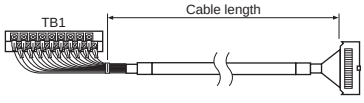
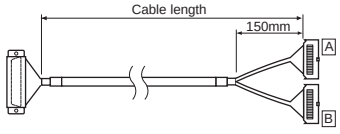
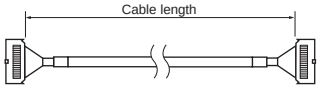
Note 1: For use with 24VDC only.
Note 2: Use the same power supply for the two terminal modules to be connected.

■Model list

●Module

Product	Shape	Model	Number of points	External connection	Remarks
Programmable controller source output relay isolation socket-type N/O contact output module	New 	FA1-TH1E16Y2RA20S	16 points	Independent common	● This relay terminal module converts output signals from the MELSEC transistor source output module into 16-point N/O contact relay output terminal block (2A/point) outputs. ● This relay terminal module has sockets, so relays can be replaced on a per point basis.

●Cable

Product	Shape	Model		Remarks
Vertical branch cable (split at the end) for MELSEC-dedicated I/O module		FA-CBL06FM2V	0.6m	
		FA-CBL10FM2V	1.0m	
		FA-CBL15FM2V	1.5m	
		FA-CBL20FM2V	2.0m	
		FA-CBL30FM2V	3.0m	
		FA-CBL50FM2V	5.0m	
		FA-CBL100FM2V	10.0m	
Vertical branch cable (split at the base) for MELSEC-dedicated I/O module		FA-CBL06FM2LV	0.6m	
		FA-CBL10FM2LV	1.0m	
		FA-CBL20FM2LV	2.0m	
		FA-CBL30FM2LV	3.0m	
		FA-CBL50FM2LV	5.0m	
		FA-CBL100FM2LV	10.0m	
Connection cable (discrete cable) for MELSEC terminal block I/O		FA-CBL06M20	0.6m	
		FA-CBL10M20	1.0m	
		FA-CBL20M20	2.0m	
Connection cable (with Y-shaped solderless terminal) for MELSEC terminal block I/O		FA-CBL10YM20	1.0m	
		FA-CBL20YM20	2.0m	
		FA-CBL30YM20	3.0m	
		FA-CBL50YM20	5.0m	
Connection cable (with MELSEC-Q terminal block) for MELSEC terminal block I/O		FA-CBL06TMV20	0.6m	
		FA-CBL10TMV20	1.0m	
		FA-CBL20TMV20	2.0m	
		FA-CBL30TMV20	3.0m	
Horizontal branch cable (D-Sub connector type) for MELSEC-dedicated source output module		FA-CBL20DM2FY	2.0m	
16-point I/O module programmable controller connection cable withstanding -20°C (crossover cable)		FA2-CB1LT10MM1H20E	1.0m	
		FA2-CB1LT20MM1H20E	2.0m	
		FA2-CB1LT30MM1H20E	3.0m	

●Product list

Product	Model	Remarks		
Replacement module (Note 1)	FA-NYP24WK4	N/O contact relay (quantity: 4, color: beige)		
	FA-NYBP24WK4	NC contact relay (quantity: 4, color: sky blue)		
	FA-SN24A01FS4	Triac (quantity: 4, color: black)		
	FA-SN24D01HZS4	Transistor (quantity: 4, color: red)		
	FA-SN00SS4	Signal pass-through module (quantity: 4, color: green)		
	FA-LYCA024VSK4	CO (change-over) contact relay (quantity: 4, color: white)		
Short-circuit bar	FA-BAR20P-20	M3 screw, 7.62-mm pitch, 20-pin short-circuit bar (quantity: 20, tin-plated brass, rated voltage and current: 300VAC/VDC and 10A)		
	FA-BAR20PG-20	M3 screw, 7.62-mm pitch, 20-pin insulated short-circuit bar (quantity: 20, tin-plated brass, rated voltage and current: 300VAC/VDC and 10A)		
	FA-BAR18PL-20	M3.5 screw, 8-mm pitch, 18-pin short-circuit bar (quantity: 20, tin-plated brass, rated voltage and current: 300VAC/VDC and 10A)		
	FA-BAR18PGL-20	M3.5 screw, 8-mm pitch, 18-pin insulated short-circuit bar (quantity: 20, tin-plated brass, rated voltage and current: 300VAC/VDC and 10A)		
Programmable controller sink output relay isolation type N/O contact output module	FA-TH16YRA11	2A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YRA21	2A/point, 8A/common	16 points/common, 2-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YRA20	2A/point	16-point independent common	M3 screw, 7.62-mm pitch
Programmable controller sink output relay isolation socket-type N/O contact output module	FA-TH16YRA11S	2A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YRA21S	2A/point, 8A/common	16 points/common, 2-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YRA20S	2A/point	16-point independent common	M3 screw, 7.62-mm pitch
	FA-TH16YRA20SL	2A/point	16-point independent common	M3.5 screw, 8-mm pitch
Programmable controller sink output relay isolation socket-type NC contact output module	FA-TH16YRAB20SL	2A/point	16-point independent common	M3.5 screw, 8-mm pitch
Programmable controller sink output relay isolation socket-type CO contact output module	FA-TH16YRAC20S	6A/point	16-point independent common	M3 screw, 7.62-mm pitch
Programmable controller sink output photocoupler isolation socket-type triac output module	FA-TH16YSR11S	1A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YSR21S	1A/point, 8A/common	16 points/common, 2-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YSR20S	1A/point	16-point independent common	M3 screw, 7.62-mm pitch
Programmable controller sink output photocoupler isolation socket-type transistor sink output module	FA-TH16YTL11S	1A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
	FA-TH16YTL21S	1A/point, 8A/common	16 points/common, 2-wire type	M3 screw, 7.62-mm pitch
Programmable controller sink output photocoupler isolation socket-type transistor source output module	FA-TH16YTH11S	1A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
Programmable controller sink output photocoupler isolation socket-type transistor sink/source common output module	FA-TH16YTR20S	1A/point	16-point independent common	M3 screw, 7.62-mm pitch
Programmable controller sink output photocoupler isolation type transistor sink/source common output module	FA-TH16Y2TR20	2A/point	16-point independent common	M3 screw, 7.62-mm pitch
Programmable controller source output photocoupler isolation socket-type transistor source output module	FA-THE16YTH11S	1A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
Programmable controller source output photocoupler isolation socket-type transistor sink/source common output module	FA-THE16YTR20S	1A/point	16-point independent common	M3 screw, 7.62-mm pitch
FX series programmable controller sink output relay isolation type N/O contact output module	FA-FXTH16YRA20	2A/point	16-point independent common	M3 screw, 7.62-mm pitch
FX series programmable controller sink output relay isolation socket-type N/O contact output module	FA-FXTH16YRA11S	2A/point, 8A/common	16 points/common, 1-wire type	M3 screw, 7.62-mm pitch
	FA-FXTH16YRA20S	2A/point	16-point independent common	M3 screw, 7.62-mm pitch

Note 1: UL certification for the replacement modules has not been acquired.

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