

## Controller Options for RVF and RHF Series

Name	Type	CR750		CR751		CR760		Functional Specification
		Q Type	D Type	Q Type	D Type	Q Type	D Type	
Basic Teach Pendant	R32TB	X	X	-	-	X	X	Controller CR-750 part number as shown is 7m. Add -15 for 15m length option
Enhanced Function Teach Pendant	R56TB	X	X	-	-	X	X	
Basic Teach Pendant	R33TB	-	-	X	X	-	-	Controller CR-751 Part number as shown is 7m. Add -15 for 15m length option
Enhanced Function Teach Pendant	R57TB	-	-	X	X	-	-	
Remote Parallel I/O Interface	2A-RZ361 (Sink)	-	X	-	X	-	X	32 input/output points (12/24VDC: 0.1A/1 point)
	2A-RZ371 (Source)	-	X	-	X	-	X	32 input/output points (12VDC: 3mA, 24VDC: 7mA)
Remote Parallel I/O Cable	2A-CBL_ _	-	X	-	X	-	X	Device side connection cable for 2A-RZ361/371. (Flying leads on device side) 5m and 15m lengths. _ _ indicates cable length (05, 15)
Remote Parallel I/O NET Cable	NET-CAB-1- _ _	-	X	-	X	-	X	Communication cable to connect from robot controller to 2A-RZ361/371. Available in 05m, 15m lengths
Remote Parallel I/O DC Cable	F070- _ _ M	-	X	-	X	-	X	DC power cable to connect from robot controller to 2A-RZ361/371.5m, 15m lengths. _ _ indicates cable length (05, 15)
On-Board Parallel I/O Interface (Installed Internally)	2D-TZ368 (Sink)	-	X	-	X	-	X	32 input/output points (12/24VDC: 0.1A/1 point)
	2D-TZ378 (Source)	-	X	-	X	-	X	32 input/output points (12VDC: 3mA, 24VDC: 7mA)
On-Board Parallel I/O Cable	2D-CBL_ _	-	X	-	X	-	X	Device side connection cable for 2D-TZ368/378. (Flying leads on device side) 5m and 15m lengths. _ _ indicates cable length (05, 15)
Additional Memory PCB 2MB	2D-TZ454	-	-	-	-	-	X	Memory expansion for D Series controllers
CC-Link Interface	2D-TZ576	-	X	-	X	-	X	CC-Link interface card for D Series controllers Version 2.0, 1 to 4 stations
DeviceNet Interface	2D-TZ571	-	X	-	X	-	X	DeviceNet interface card for D Series controllers
EtherNet/IP Card	2D-TZ600EIP	-	X	-	X	-	X	Ethernet interface card for D Series controllers
PROFINET Interface Card	2D-TZ600PN	-	X	-	X	-	X	PROFINET interface card for D Series controllers
PROFIBUS Interface	2D-TZ577	-	X	-	X	-	X	Profibus interface card for D Series controllers
Force Sensor Set	4F-FS001-W200	X	X	X	X	-	-	Force sensor, interface module, power supply and connection cables
Terminal Block Kit for CNUSR Connection	2F-CNUSR01M	X	X	X	X	-	-	MELFA terminal block and connection cable for the CNUSR connections on CR750/751 controllers
Connection Cable for CNUSR	2F-CNUSR-TB- _ M	X	X	X	X	-	-	Connection cable for the CNUSR port on CR750/751 controllers with an end prepared for connection to terminal block MR-TB50MIN. Available in 1m, 3m, 5m lengths _ _ indicates cable length (01, 03, 05)
	2F-CNUSR-FL- _ M	X	X	X	X	-	-	Connection cable for the CNUSR port on CR750/751 controllers with flying leads on device side. Available in 1m, 3m, 5m lengths _ _ indicates cable length (01, 03, 05)
Terminal Block for 2F-CNUSR-TB Cables	MR-TB50MIN	X	X	X	X	-	-	50 point, 3 level, din rail mountable terminal block
AC Power Supply Connection Cable	CR751-PWR-CBL-10M	-	-	X	X	-	-	Replacement AC power cable for CR751 controllers. 10m length Connector prepared on controller side with flying leads on the other end.
Encoder Multiplexer Unit	2F-YZ581	X	X	X	X	X	X	Allows the input of a single encoder to be sent to a maximum of 4 devices
Teach Pendant Conversion Cable	2F-32CON03M	-	-	X	X	-	-	Conversion adapter to connect the CR-751 controller to R32TB/R56TB (3M cable length)
Teach Pendant Conversion Adapter	2F-32CON0R1M	-	-	X	X	-	-	Conversion adapter to connect the CR-751 controller to R32TB/R56TB
MELFA Safe Plus	4F-SF001-01	X	X	X	X	-	-	Safety monitoring system for CR-750/CR-751 controllers. Supports STO, SS1, SLS, SLP, STR modes. Connections available for safety rated inputs and outputs (Requires RT-Toolbox 2 for programming and setup. Customer supplied external safety devices may be required for some modes.)
Teach Pendant Safety Signal Interface	2F-TBSTS-01	X	X	-	-	X	X	Safety IO signal box for R32TB/R56TB. Allows access to teach pendant safety signals.
Robot CPU Unit Connection Cable Set	2Q-RC-CBL_ _ M	X	-	X	-	X	-	iQ CPU to amplifier connection cable set. (Replacement/Custom length) Includes: TU, DISP, EMI, and SSCNET; _ _ = 02, 05, 20, 30 meter cable length
Robot Dedicated TU Cable (M)	2Q-TUCBL_ _ M	X	-	X	-	X	-	Robot CPU-TU communication cable for iQ _ _ = 05, 20, 30 meter length (Replacement/Custom length)
Robot Dedicated DISP Cable	2Q-DISPCBL_ _ M	X	-	X	-	X	-	Robot CPU-DISP communication cable for iQ _ _ = 05, 20, 30 meter length (Replacement/Custom length)
Robot-Only EMI Cable	2Q-EMICBL_ _ M	X	-	X	-	X	-	CPU to Amp emergency stop input cable for iQ _ _ = 05, 20, 30 meter cable length (Replacement/Custom length)
SSCNET Cable	MR-J3BUS_M-A	X	-	X	-	X	-	SSCNET to Amp cable for iQ; _ = 05, 20 meter cable length. (Replacement/Custom length)
	MR-J3BUS30M-B	X	-	X	-	X	-	SSCNET to Amp cable for iQ 30m (Replacement)

Note 1: SolidWorks® is a registered trademark of SolidWorks Corporation (USA)

## Controller Options for RVF and RHF Series (continued)

Name	Type	CR750		CR751		CR760		Functional Specification
		Q Type	D Type	Q Type	D Type	Q Type	D Type	
Controller Protection Box	CR750-MB-US	X	X	-	-	-	-	Protective housing that provides IP54 protection for the CR-750 controller
	CR751-MB-US	-	-	X	X	-	-	Protective housing that provides IP54 protection for the CR-751 controller
iQube	RBT-CONT-ENC	-	-	X	-	-	-	Control solution for CR-751-Q robot controllers. Includes iQ backplane, power supply, PLC, discrete input/output cards, Gig-E Ethernet switch, 24V power, and power distribution components. (Supports up to 3 CR-751 controllers. Accepts optional VFDs, servo amplifiers, force sensor interface and safety monitoring systems)
iQube Wheels	RBT-CONT-ENC-WH	-	-	X	-	-	-	Locking caster wheels for iQube
PC Programming and Simulation Software	RT-TOOLBOX3-C1	X	X	X	X	X	X	Software that facilitates the programming and 3D simulation of Mitsubishi robots. Legacy support for all versions of MELFA Basic and Movemaster languages.
3D Simulation Software for Solidworks (MELFA-Works)	RT-TOOLBOX3PRO-C1	X	X	X	X	X	X	Add-in software for Solidworks® (*1) that enables the programming and simulation of Mitsubishi robots within Solidworks®. (Includes full version of RT-Toolbox3)
Canon 3D Vision System	RV_00-3DVS	X	X	X	X	X	X	3D vision system to locate trained parts in 3D space and guide a robot to pick them. Provides bin collision avoidance and part interference checking. (Requires 3D CAD model of part and robot tooling.) _ corresponds to field of view: 3=340x340x100 / 5=540x540x200 / 10=1160x1160x600. Calibration jigs and PC not included
Canon 3D Vision Software Option	RV-OPU0_	X	X	X	X	X	X	Software option to provide additional functionality to Canon 3DVS 1 = Enables system to accommodate slide mounting 2 = Dictionary creation and transfer via 2nd PC 3 = Batch recognition and multi-pallet handling 4 = Consecutive recognition checking 5 = Partial work piece recognition _ corresponds to option selected

## Multifunctional Electric Hand Option

## Cam Type

Model Number		4F-MEGR-02	4F-MEGR-03	4F-MEGR-01
Gripping Force	Max. Continuous Rating (N)	6	22	5
	Minimum Setting [%] (N)	30 (1.8)	30 (6.6)	1.5
	Resolution [%] (N)	1 (0.06)	1 (0.22)	1 (0.05)
Open/Close Stroke (mm)		7.6	14.3	3.2
Speed	Max (Rating) [mm/sec]	100	100	100
	Min. Setting [%] (mm/sec)	20 (20)	20 (20)	20 (20)
	Resolution [%] (mm/sec)	1 (1)	1 (1)	1 (1)
	Constant-Speed Move and Grip (max) [%]	50	50	50
Position	Repeatability (mm)	±0.02	±0.02	±0.02
	Max. Mass (1 Pair) [g]	15	30	10
Finger	Allowable Load (N)	450	350	12
	Allowable Pitching Moment (N•m)	0.7	0.5	0.04
	Allowable Yawing Moment (N•m)	0.8	0.6	0.04
	Allowable Rolling Moment (N•m)	2.3	2.8	0.08
	Max. Gripping Point (mm)	20	20	20
	Max. Overhang (mm)	20	25	20
Guide Structure		Linear guide		
Max. Overhang (kg)		0.06	0.22	0.05
Operating Temperature Range (°C)		0 to 40		
Operating Humidity Range (%)		RH35 to 90		
Operating Storage Temperature (°C)		-10 to +60		
Weight (g)		160	300	90

## Multifunctional Electric Hand Option (continued)

### Screw Type

Model Number		4F-MEHGR-02
Gripping Force	Max. Continuous Rating [N]	150
	Minimum Setting [%] (N)	30 (45)
	Resolution [%] (N)	1 (1.5)
Open/Close Stroke [mm]		38
Speed	Max (Rating) [mm/sec]	50
	Min. Setting [%] (mm/sec)	20 (10)
	Resolution [%] (mm/sec)	1 (0.5)
	Constant-Speed Move and Grip (max) [%]	50
Position	Repeatability [mm]	±0.01
Finger	Max. Mass (1 pair) [g]	80
	Allowable Load [N]	1300
	Allowable Pitching Moment [N•m]	5
	Allowable Yawing Moment [N•m]	6
	Allowable Rolling Moment [N•m]	12.7
	Max. Gripping Point [mm]	30
	Max. Overhang [mm]	20
Guide Structure		Linear guide
Max. Overhang (kg)		1.5
Operating Temperature Range (°C)		0 to 40
Operating Humidity Range (%)		RH35 to 90
Operating Storage Temperature (°C)		-10 to +60
Weight (g)		890

### 3-Finger Single Cam Type

Model Number		4F-MEHGR-05
Gripping Force	Max. Continuous Rating (N)	2
	Minimum Setting [%] (N)	30 (0.6)
	Resolution [%] (N)	1 (0.02)
Open/Close Stroke [mm]		13
Speed	Max (Rating) (mm/sec)	100
	Min. Setting [%] (mm/sec)	20 (20)
	Resolution [%] (mm/sec)	1 (1)
	Constant-Speed Move and Grip (max) (%)	50
Position	Repeatability (mm)	±0.03
Finger	Max. Mass (1 pair) (g)	20
	Allowable Load (N)	20
	Allowable Moment (N•m)	0.1
	Max. Gripping Point (mm)	20
Guide Structure		Linear guide
Max. Gripping Mass (kg)		0.02
Operating Temperature Range [°C]		0 to 40
Operating Humidity Range [%]		RH35 to 90
Operating Storage Temperature [°C]		-10 to +60
Weight (g)		190

No.	Hand Cable	Model Name in TAIYO	Model Name as our Products
1	Hand cable (RV-4F/7F/13F/20F Series)	ESA-C03-12XW113	4F-MEHCBL-01
2	Hand cable (RH-3FH35/45/5515 & clean specification Z=120, RH-6FH(M)(C)35/45/5520)	ESA-C13-12XW112	4F-MEHCBL-02
3	Hand cable (RH-6FH(M)(C)35/45/5534)	ESA-C16-12XW112	4F-MEHCBL-03
4	Hand cable (RH-12FH(M)(C)55/70/8535, RH-20FH(M)(C)8535)	ESA-C18-12XW112	4F-MEHCBL-04
5	Hand cable (RH-12FH(M)(C)55/70/8545, RH-20FH(M)(C)10035/45)	ESA-C21-12XW112	4F-MEHCBL-05