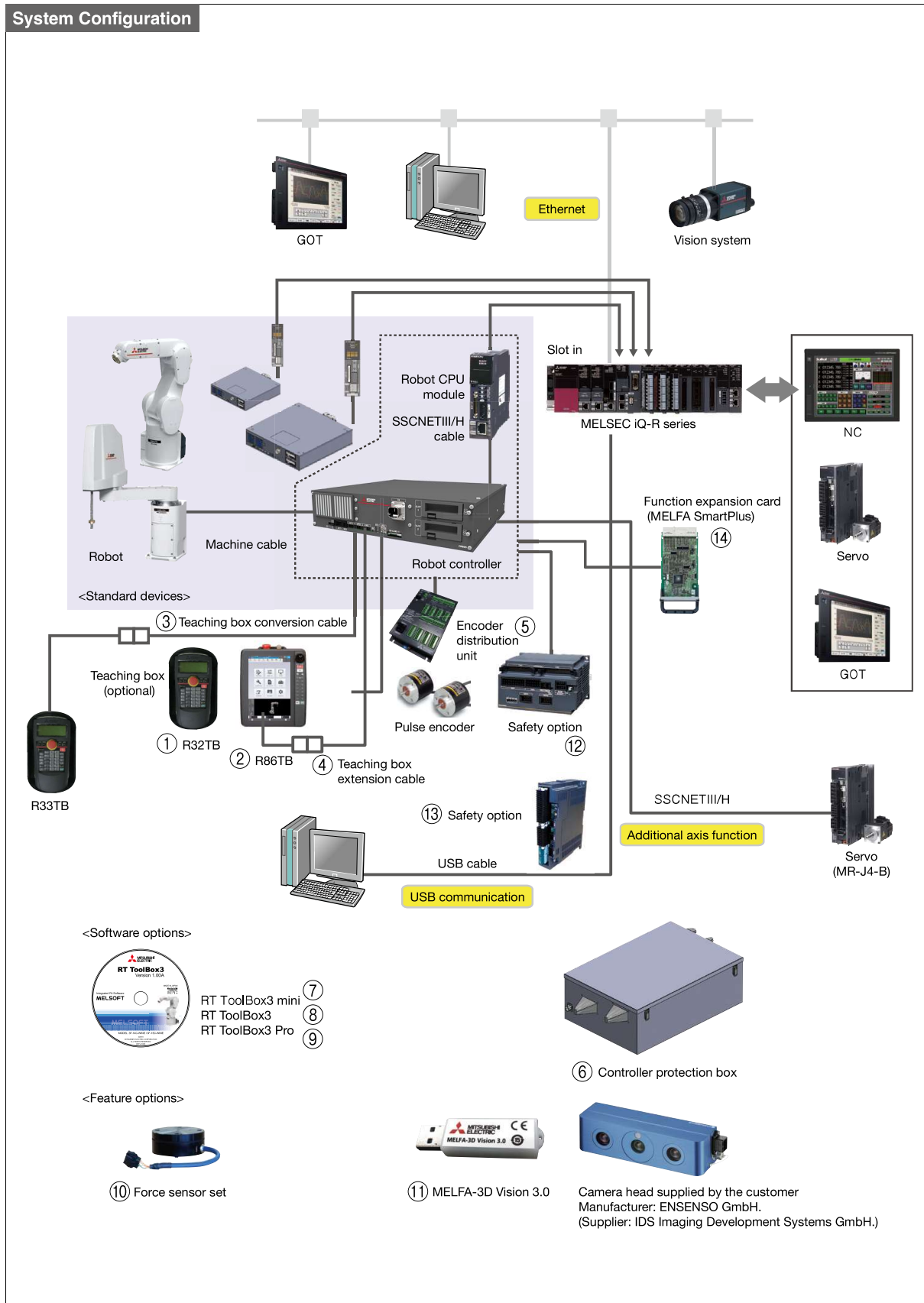


SYSTEM

CR800-R Controller

System Configuration



OPTION (CR800-R Controller)

Optional Configuration (Controllers)

No.	Name	Model	Specifications
①	Simple teaching box (7, 15 m)	R32TB (-**)	7 m: Standard; 15 m: Special (model name includes "-15")
②	High-performance teaching box(7m)	R86TB	7 m: Standard If 7 m is not enough, use a teaching box extension cable.
③	Teaching box conversion cable (33→32)	2F-33CON03M	Conversion cable for connecting the CR800 controller to the R33TB/R57TB. Cable length:3m
④	Teaching box extension cable	2F-32EXTBST- ** M	**is the cable length. (01,05,10,15m)
⑤	Encoder distribution unit	2F-YZ581	Unit used for connecting multiple controllers to one rotary encoder when using the tracking function
⑥	Controller protection box	CR800-MB	Houses a controller and provides protection against dust and water. (IP54)
⑦	Computer support software mini version	3F-15C-WINE	Simplified version (DVD-ROM), (RT ToolBox3 mini)
⑧	Computer support software	3F-14C-WINE	With simulation function (DVD-ROM), (RT ToolBox3)
⑨	Computer support software Pro version	3F-16D-WINE	Professional version (DVD-ROM), (RT ToolBox3 Pro)

Optional Configurations (Functions)

No.	Name	Model	Specifications
⑩	Force sensor set	4F-FS002H-W200 4F-FS002H-W1000	Set of devices required for force control functionality, including force sensors, the interface unit, and support software.
⑪	MELFA-3D Vision 3.0	3F-53U-WINM	MELFA-3D Vision software
⑫	Safety option	4F-SF002-01	Devices required by the safety functions
⑬	Safety option	4F-SF003-05	Devices required by the safety functions

Option Configurations (Software Expansion Functions)

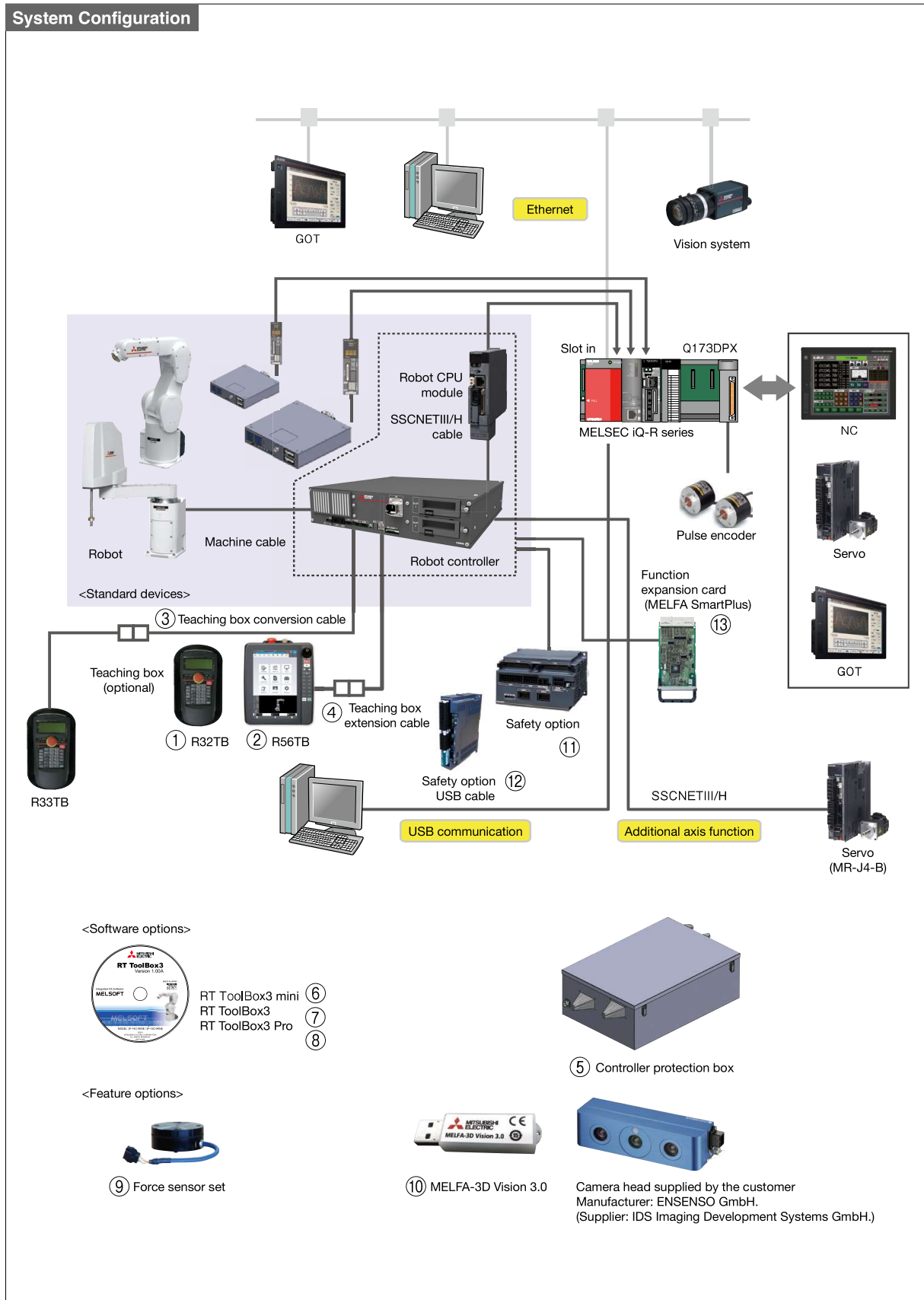
No.	Name	Model	Specifications
⑭	MELFA Smart Plus Card Pack	2F-DQ510	Enables all A-type functions
		2F-DQ520	Enables all A and B-type functions
	MELFA Smart Plus Card	2F-DQ511	Selects and enables one function from the A-type functions
		2F-DQ521	Selects and enables one function from the A and B-type functions

Classifi- cation	Name	Type	Function outline
Intelligent function	Calibration assistance function	A	Assists positional calibration with peripheral devices using 2D vision sensors.
	Automatic calibration		Improves positioning accuracy by automatically correcting the vision sensor coordinates.
	Work coordinate calibration		Improves positioning accuracy by correcting the robot coordinates and work coordinates from the vision sensor.
	Inter-robot relational calibration		Uses vision sensors to adjust the relative locations of multiple robots. Improves positioning accuracy during coordinated operation.
	2D vision sensor enhancement function	A	Various vision applications are used to facilitate vision alignment.
	Robot mechanism thermal compensation function	A	Improves positioning accuracy by compensating for thermal expansion in the robot arm.
	Coordinated control for additional axis	A	Function for highly accurate coordination (interpolation) with additional axis (straight coaxial)
	Preventive maintenance function (Maintenance simulation, Wear calculation function)	A	Function for managing the robot status by tracking operation status. * Compatible with robot controller Version A3 or later.
AI function	MELFA 3D Vision enhancement function	B	Automates 3D vision sensor parameter adjustment work, and improves measurement and recognition performance using AI technology. * Compatible with robot controller Version A3 or later.
	Predictive maintenance function (Fault detection function)	B	Quickly detects abnormalities in drive system components before they to affect robot behavior. * Compatible with robot controller Version A4 or later. * By enabling this function, it is also possible to use the preventive maintenance function (maintenance simulation and wear calculation function).
	Enhancement function for force sense control	B	Utilizes AI technology to perform repeated learning in a short time period to calculate the optimal insertion pattern. * Compatible with robot controller Version A4 or later.

SYSTEM

CR800-Q Controller

System Configuration



OPTION (CR800-Q Controller)

Optional Configuration (Controllers)

No.	Name	Model	Specifications
①	Simple teaching box (7, 15 m)	R32TB (-**)	7 m: Standard; 15 m: Special (model name includes "-15")
②	High-performance teaching box (7m)	R86TB	7 m: Standard if 7 m is not enough, use a teaching box extension cable.
③	Teaching box conversion cable (33→32)	2F-33CON03M	Conversion cable for connecting the CR800 controller to the R33TB/R57TB. Cable length:3m
④	Teaching box extension cable	2F-32EXTBST-**M	** is the cable length.(01,05,10,15m)
⑤	Controller protection box	CR800-MB	Houses a controller and provides protection against dust and water. (IP54)
⑥	Computer support software mini version	3F-15C-WINE	Simplified version (DVD-ROM), (RT ToolBox3 mini)
⑦	Computer support software	3F-14C-WINE	With simulation function (DVD-ROM), (RT ToolBox3)
⑧	Computer support software Pro version	3F-16D-WINE	Professional version (DVD-ROM), (RT ToolBox3 Pro)

Optional Configurations (Functions)

No.	Name	Model	Specifications
⑨	Force sensor set	4F-FS002H-W200	Set of devices required for force control functionality, including force sensors, the interface unit, and support software.
		4F-FS002H-W1000	
⑩	MELFA-3D Vision 3.0	3F-53U-WINM	MELFA-3D Vision software
⑪	Safety option	4F-SF003-05	Devices required by the safety functions
⑫	Safety option	4F-SF002-05	Devices required by the safety functions

Option Configurations (Software Expansion Functions)

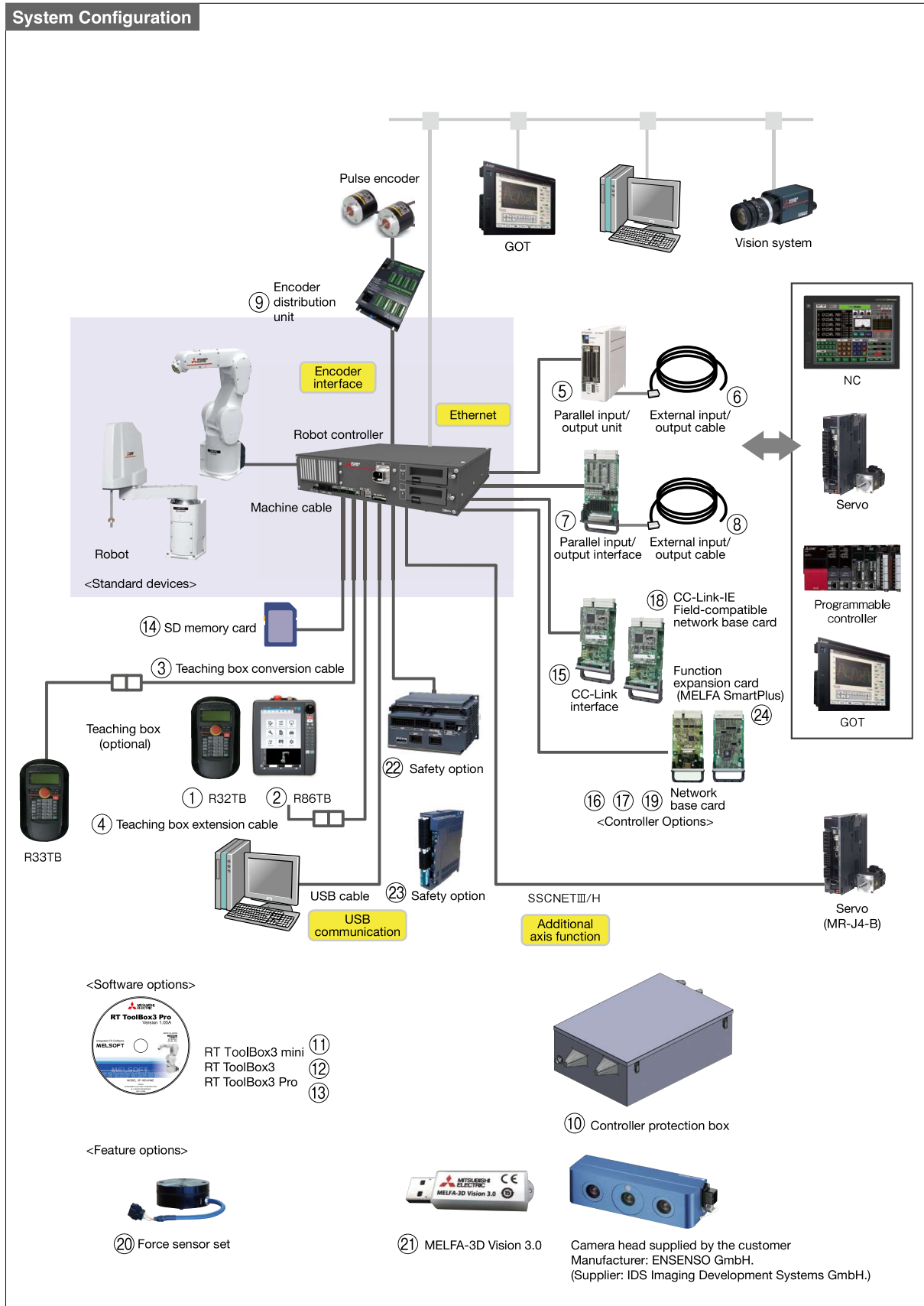
No.	Name	Model	Specifications
⑬	MELFA Smart Plus Card Pack	2F-DQ510	Enables all A-type functions
		2F-DQ520	Enables all A and B-type functions
	MELFA Smart Plus Card	2F-DQ511	Selects and enables one function from the A-type functions
		2F-DQ521	Selects and enables one function from the A and B-type functions

Classification	Name	Type	Function outline
Intelligent function	Calibration assistance function	A	Assists positional calibration with peripheral devices using 2D vision sensors.
	Automatic calibration		Improves positioning accuracy by automatically correcting the vision sensor coordinates.
	Work coordinate calibration		Improves positioning accuracy by correcting the robot coordinates and work coordinates from the vision sensor.
	Inter-robot relational calibration		Uses vision sensors to adjust the relative locations of multiple robots. Improves positioning accuracy during coordinated operation.
	2D vision sensor enhancement function	A	Various vision applications are used to facilitate vision alignment.
	Robot mechanism thermal compensation function	A	Improves positioning accuracy by compensating for thermal expansion in the robot arm.
	Coordinated control for additional axis	A	Function for highly accurate coordination (interpolation) with additional axis (straight coaxial)
	Preventive maintenance function (Maintenance simulation, Wear calculation function)	A	Function for managing the robot status by tracking operation status. * Compatible with robot controller Version A3 or later.
AI function	MELFA 3D Vision enhancement function	B	Automates 3D vision sensor parameter adjustment work, and improves measurement and recognition performance using AI technology. * Compatible with robot controller Version A3 or later.
	Predictive maintenance function (Fault detection function)	B	Quickly detects abnormalities in drive system components before they to affect robot behavior. * Compatible with robot controller Version A4 or later. * By enabling this function, it is also possible to use the preventive maintenance function (maintenance simulation and wear calculation function).
	Enhancement function for force sense control	B	Utilizes AI technology to perform repeated learning in a short time period to calculate the optimal insertion pattern. * Compatible with robot controller Version A4 or later.

SYSTEM

CR800-D Controller

System Configuration



OPTION (CR800-D Controller)

Optional Configuration (Controllers)

No.	Name	Model	Specifications
①	Simple teaching box (7, 15 m)	R32TB (-***)	7 m: Standard; 15 m: Special (model name includes "-15")
②	High-performance teaching box (7m)	R86TB	7 m: Standard If 7m is not enough, use a teaching box extension cable
③	Teaching box conversion cable (33→32)	2F-33CON03M	Conversion cable for connecting the CR800 controller to the R33TB/R57TB. Cable length: 3m
④	Teaching box extension cable	2F-32EXTBST-***M	*** is the cable length. (01, 05, 10, 15 m)
⑤	Parallel input/output unit	(Sink type) 2A-RZ361	32 outputs/32 inputs * Cannot be used with safety options.
		(Source type) 2A-RZ371	
⑥	External input/output cable (5, 15 m)	2A-CBL***v	CBL05: 5 m; CBL15: 15 m, one end unterminated For 2A-RZ361/371
⑦	Parallel input/output interface (built-in)	(Sink type) 2D-TZ368	32 outputs/32 inputs
		(Source type) 2D-TZ378	
⑧	External input/output cable (5, 15 m)	2D-CBL**	CBL05: 5 m; CBL15: 15 m, one end unterminated For 2D-TZ368/378
⑨	Encoder distribution unit	2F-YZ581	Unit used for connecting multiple controllers to one rotary encoder when using the tracking function
⑩	Controller protection box	CR800-MB	Houses a controller and provides protection against dust and water. (IP54)
⑪	Computer support software mini version	3F-15C-WINE	Simplified version (DVD-ROM), (RT ToolBox3 mini)
⑫	Computer support software	3F-14C-WINE	With simulation function (DVD-ROM), (RT ToolBox3)
⑬	Computer support software Pro version	3F-16D-WINE	Professional version (DVD-ROM), (RT ToolBox3 Pro)
⑭	SD memory card	2F-2GBSD	2 GB, logging
⑮	CC-Link interface card	2D-TZ576	CC-Link intelligent device station Ver. 2.0, for 1–4 stations
⑯	Ethernet/IP interface card	2D-TZ600EIP	Ethernet IP interface card for D Series controllers
⑰	PROFINET interface card	2D-TZ600PN	PROFINET interface card for D Series controllers
⑱	CC-Link-IE Field interface card	2F-DQ600CIEF	CC-Link IE Field interface card for D Series controllers
⑲	EtherCAT interface card	2D-TZ600ECT	Ethercat interface card for D Series

Optional Configurations (Functions)

No.	Name	Model	Specifications
⑳	Force sensor set	4F-FS002H-W200	Set of devices required for force control functionality, including force sensors, the interface unit, and support software.
		4F-FS002H-W1000	
㉑	MELFA-3D Vision 3.0	3F-53U-WINM	MELFA-3D Vision software
㉒	Safety option	4F-SF002-01	Devices required by the safety functions
㉓	Safety option	4F-SF003-05	Devices required by the safety functions

Option Configurations (Software Expansion Functions)

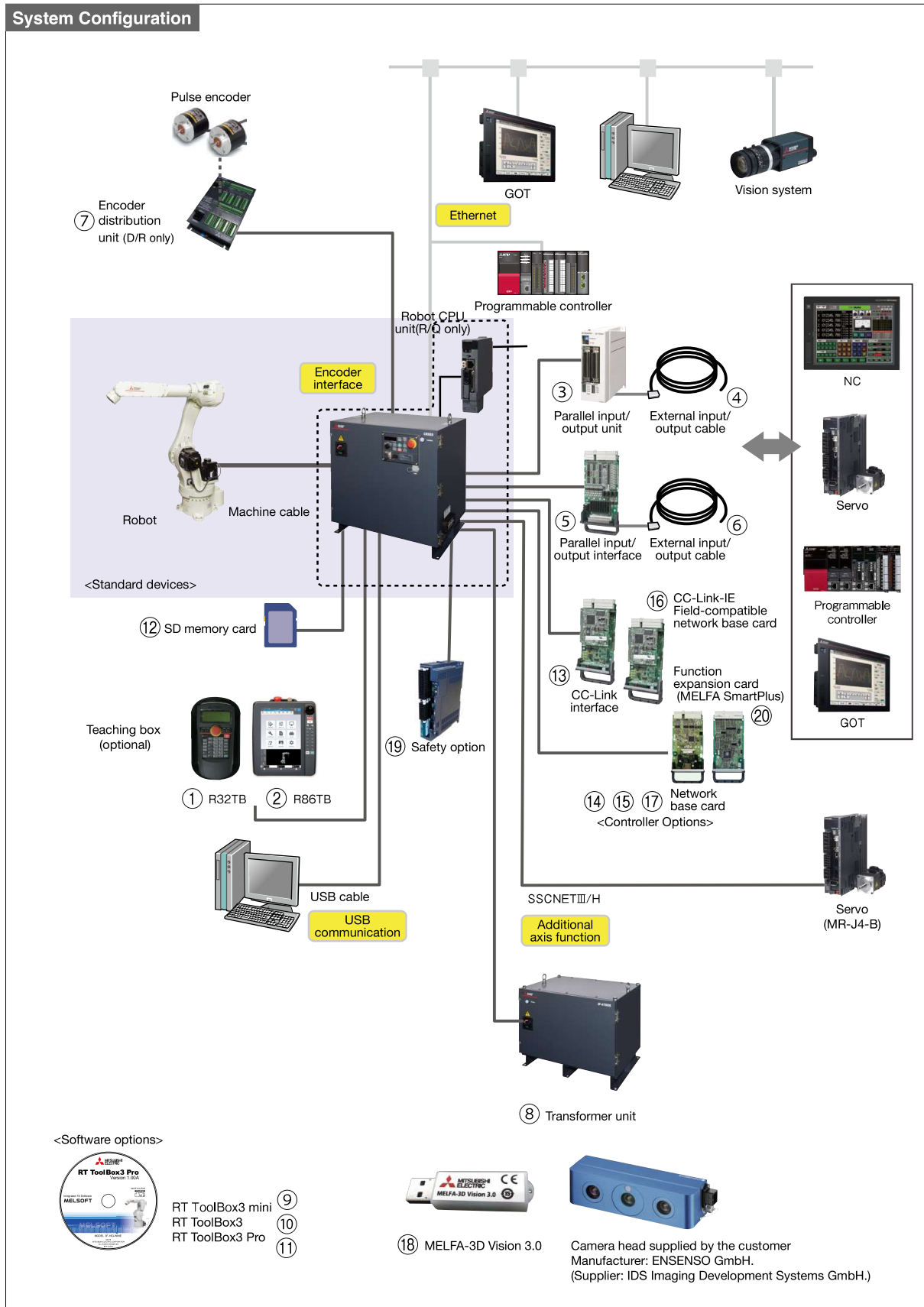
No.	Name	Model	Specifications
㉔	MELFA Smart Plus Card Pack	2F-DQ510	Enables all A-type functions
		2F-DQ520	Enables all A and B-type functions
	MELFA Smart Plus Card	2F-DQ511	Selects and enables one function from the A-type functions
		2F-DQ521	Selects and enables one function from the A and B-type functions

Classification	Name	Type	Function outline
Intelligent function	Calibration assistance function	A	Assists positional calibration with peripheral devices using 2D vision sensors.
	Automatic calibration		Improves positioning accuracy by automatically correcting the vision sensor coordinates.
	Work coordinate calibration		Improves positioning accuracy by correcting the robot coordinates and work coordinates from the vision sensor.
	Inter-robot relational calibration		Uses vision sensors to adjust the relative locations of multiple robots. Improves positioning accuracy during coordinated operation.
	2D vision sensor enhancement function	A	Various vision applications are used to facilitate vision alignment.
	Robot mechanism thermal compensation function	A	Improves positioning accuracy by compensating for thermal expansion in the robot arm.
AI function	Coordinated control for additional axis	A	Function for highly accurate coordination (interpolation) with additional axis (straight coaxial)
	Preventive maintenance function (Maintenance simulation, Wear calculation function)	A	Function for managing the robot status by tracking operation status. * Compatible with robot controller Version A3 or later.
	MELFA 3D Vision enhancement function	B	Automates 3D vision sensor parameter adjustment work, and improves measurement and recognition performance using AI technology. * Compatible with robot controller Version A3 or later.
	Predictive maintenance function (Fault detection function)	B	Quickly detects abnormalities in drive system components before they to affect robot behavior. * Compatible with robot controller Version A4 or later. * By enabling this function, it is also possible to use the preventive maintenance function (maintenance simulation and wear calculation function).
	Enhancement function for force sense control	B	Utilizes AI technology to perform repeated learning in a short time period to calculate the optimal insertion pattern. * Compatible with robot controller Version A4 or later.

SYSTEM

CR860 Controller

System Configuration



OPTIONS (CR860 Controller)

Optional Configuration (Controllers)

No.	Name	Model	Specifications
①	Simple teaching box (7, 15 m)	R32TB (-**)	7 m: Standard; 15 m: Special (model name includes "-15")
②	High-performance teaching box (7m)	R86TB	7 m: Standard
③	Parallel input/output unit	(Sink type)	2A-RZ361
		(Source type)	2A-RZ371
④	External input/output cable (5, 15 m)	2A-CBL**v	CBL05: 5 m; CBL15: 15 m, one end unterminated For 2A-RZ361/371
⑤	Parallel input/output interface (built-in)	(Sink type)	2D-TZ368
		(Source type)	2D-TZ378
⑥	External input/output cable (5, 15 m)	2D-CBL**	CBL05: 5 m; CBL15: 15 m, one end unterminated For 2D-TZ368/378
⑦	Encoder distribution unit	2F-YZ581	Unit used for connecting multiple controllers to one rotary encoder when using the tracking function (D/R only)
⑧	Transformer unit	2F-ATBOX	The robot can be used with a 400V power supply.
⑨	Computer support software mini version	3F-15C-WINE	Simplified version (DVD-ROM), (RT ToolBox3 mini)
⑩	Computer support software	3F-14C-WINE	With simulation function (DVD-ROM), (RT ToolBox3)
⑪	Computer support software Pro version	3F-16D-WINE	Professional version (DVD-ROM), (RT ToolBox3 Pro)
⑫	SD memory card	2F-2GBSD	2 GB, logging
⑬	CC-Link interface	2D-TZ576	CC-Link intelligent device station Ver. 2.0, for 1-4 stations
⑭	Network base card (Ethernet/IP interface)	2D-TZ535	Communications interface for installation in an HMS Anybus-CompactCom module. HMS Ethernet/IP module (AB6314-B-218) to be provided by the customer.
⑮	Network base card (PROFINET interface)	2D-TZ535-PN	Communications interface for installation in an HMS Anybus-CompactCom module. HMS PROFINET IO module (AB6489-B) to be provided by the customer.
⑯	Network base card (CC-Link-IE Field interface)	2F-DQ535	Communications interface for installation in an HMS Anybus-CompactCom module. HMS CC-Link-IE Field module (AB6709-B-116) to be provided by the customer.
⑰	Network base card (EtherCAT interface)	2F-DQ535-EC	Communications interface for installation in an HMS Anybus-CompactCom module. HMS EtherCAT module (AB6607-D-224) to be provided by the customer.

Optional Configurations (Functions)

No.	Name	Model	Specifications
⑱	MELFA-3D Vision 3.0	3F-53U-WINM	MELFA-3D Vision software
⑲	Safety option	4F-SF003-05	Devices required by the safety functions

Option Configurations (Software Expansion Functions)

No.	Name	Model	Specifications
⑳	MELFA Smart Plus Card Pack	2F-DQ510	Enables all A-type functions
		2F-DQ520	Enables all A and B-type functions
	MELFA Smart Plus Card	2F-DQ511	Selects and enables one function from the A-type functions
		2F-DQ521	Selects and enables one function from the A and B-type functions

Classification	Name	Type	Function outline
Intelligent function	Calibration assistance function	A	Assists positional calibration with peripheral devices using 2D vision sensors.
	Automatic calibration		Improves positioning accuracy by automatically correcting the vision sensor coordinates.
	Work coordinate calibration		Improves positioning accuracy by correcting the robot coordinates and work coordinates from the vision sensor.
	Inter-robot relational calibration		Uses vision sensors to adjust the relative locations of multiple robots. Improves positioning accuracy during coordinated operation.
Intelligent function	2D vision sensor enhancement function	A	Various vision applications are used to facilitate vision alignment.
	Robot mechanism thermal compensation function	A	Improves positioning accuracy by compensating for thermal expansion in the robot arm.
	Coordinated control for additional axis	A	Function for highly accurate coordination (interpolation) with additional axis (straight coaxial)
AI function	MELFA 3D Vision enhancement function	B	Automates 3D vision sensor parameter adjustment work, and improves measurement and recognition performance using AI technology. * Compatible with robot controller Version A3 or later.
	Enhancement function for force sense control	B	Utilizes AI technology to perform repeated learning in a short time period to calculate the optimal insertion pattern. * Compatible with robot controller Version A4 or later.

OPTIONS

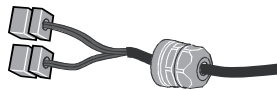
Solenoid valve set



RH-3FRH and 6FRH
RH-12FRH and 20FRH

When grippers or various other tools are mounted on the end of the arm, this solenoid valve option is used to control those tools. Fitted with features such as manifolds, couplings and connectors to facilitate mounting on the robot body. The solenoid valve attachment shapes differ depending on the robot. Note the attachment shape before using.

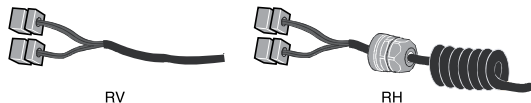
Hand output cable



Cable size x No. of cores	AWG#24 (0.2 mm ²) x 12 cores
Total length:	300 mm (RV), 1050 mm (RH)

Useful for using solenoid valves other than the optional solenoid valve set. One end can be connected to the gripper signal output connector in the robot. The other end is unterminated (bare cable).

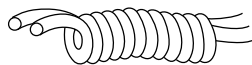
Hand input cable



Cable size x No. of cores	AWG#24 (0.2 mm ²) x 12 cores
Total length:	1000 mm (RV), 1650/1800 mm (RH: Includes a 350 mm curled section)

Used when the air gripper is designed by the customer. Used to convey gripper open/close confirmation signals and grip confirmation signals to the controller. One end can be connected to the gripper signal input connector on the top of the robot body. The other end is connected to a sensor in the gripper designed by the customer.

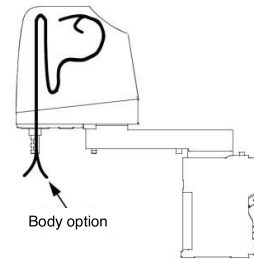
Hand curl tube



Material	Urethane
Size (mm)	Φ4 (external), Φ2.5 (internal); length: 180 mm curled section, 250 + 200 mm straight section

Curl tube for air gripper.

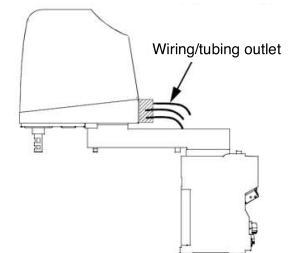
Internal wiring and tubing set for grippers



An air tube and cable set used to run input signal cables from inside the second arm to the shaft tip. An air tube and gripper input signal cable set. Includes grease (for applying to the upper part of the shaft), silicon rubber and cable ties.

External user wiring and tubing box

This is a useful option for taking air tubes and signal wires out from the back end of the second arm or running gripper wiring and/or tubing outside the robot. Features a coupling for exiting air tubes and a hole with cable clamps to secure exiting signal wires. Optional gripper output cables and gripper input cables can be secured.



J1 axis movement range modification

	RV (*1)	RH
+J1	(Standard +240°) +210°, +150°, +90°	(Standard +170°) +150°, +130°
-J1	(Standard -240°) -210°, -150°, -90°	(Standard -170°) -150°, -130°

*1: For RV-2FR or RV-2FRL.
Refer to the specifications for information on other models.



The J1 axis range of movement is limited by mechanical stoppers on the robot body and by the controller parameters. Use this feature when the range of movement needs to be limited due to problems such as interference with nearby devices.

Machine cable (replacement)



Fixed cable	2m, 10m, 15m or 20m
Flexible cable	10, 15 or 20 m; min. bend radius: 100 R or more

Used for replacement of the standard machine cable (5 m) included to extend the distance between robot controller and the robot main unit and connect it. There are 2 types of cables: fixed and flexible. Both type consists of motor signal cable and motor power cable.

OPTIONS

Simple teaching box

R32TB

External dimensions	195 (W) × 292 (H) × 106 (D) mm
Weight	Approx. 0.9 kg (body only, excluding cables)
Display	LCD type: 24 characters × 8 rows, backlit
Display languages	Japanese, English



Used for creating, editing and managing programs, to teach operating positions and for jogging. Fitted with a 3-position enabling switch to ensure safe use. When multiple robots are used, the connections can be switched to a single teaching box.

High-performance teaching box

R86TB

External dimensions	215 (W) × 284 (H) × 76 (D) mm
Weight	Approx. 1,200 g (cable not included)
Interface	USB host(Type-A) (32G bytes or less)
Display	10.1" TFT(800×1280)color touch panel with a back light
Display languages	Japanese/English/Simplified Chinese /Traditional Chinese



Easy to use, intuitive user interface, and key features of engineering software. We also provide data analysis methods for troubleshooting problems.

Parallel input/output unit

<Input>

Model	DC input	
No. of input	32	
Isolation method	Photocoupler isolation	
Rated input voltage	12 V DC	24 V DC
Rated input current	Approx. 3 mA	Approx. 7 mA

<Output>

Model	Transistor output	
No. of outputs	32	
Isolation method	Photocoupler isolation	
Rated load voltage	12/24 V DC	
Maximum load current	0.1 A/output	



Used when external input/outputs are added. Connector cables for external devices are not included. External input/output cables (for parallel input/output units) are available as options. Both sink and source types are available. ※Cannot be used with safety option.

Parallel input/output interface

<Input>

Model	DC input	
No. of input	32	
Isolation method	Photocoupler isolation	
Rated input voltage	12 V DC	24 V DC
Rated input current	Approx. 3 mA	Approx. 9 mA

<Output>

Model	Transistor output	
No. of outputs	32	
Isolation method	Photocoupler isolation	
Rated load voltage	12/24 V DC	
Maximum load current	0.1 A/output	



Installing this option on the controller allows external input/output to be used. Connector cables for external devices are not included. External input/output cables (for parallel input/output interfaces) are available as options. The input/output specifications are the same as for PLC interfaces. Both sink and source types are available.

External input/output cables (for parallel input/output units)

Cable size × No. of cores	AWG#28 × 25P (50 cores)
Total length:	5 or 15 m



This is a dedicated cable for connecting external peripheral devices to parallel input/output unit connectors. One end is matched to the parallel input/output unit and the other end is unterminated. Input/output signals from peripheral devices should be connected via the unterminated end of the cable. One cable supports 16 inputs and 16 outputs. If a parallel input/output unit is installed, 32 inputs and 32 outputs are connected per unit, so two cables must be added.

External input/output cables (for parallel input/output interfaces)

Cable size × No. of cores	AWG#28 × 20P (40 cores)
Total length:	5 or 15 m



This is a dedicated cable for connecting external peripheral devices to parallel input/output interface connectors. One end is matched to the parallel input/output interface and the other end is unterminated. Input/output signals from peripheral devices should be connected via the unterminated end of the cable. One cable supports 16 inputs and 16 outputs. If a parallel input/output interface is installed, 32 inputs and 32 outputs are connected per unit, so two cables must be added.

OPTIONS

CC Link Interface

Communication functions	Bit/word data transfer
Station type	Intelligent device station
Support station	Local station (no master station function)
CC-Link-compatible version	Ver.2, allows extended cyclic configuration
No. of isolated stations	Isolation of 1, 2, 3 or 4 stations can be configured



The CC-Link interface option augments CC-Link functionality by allowing cyclic transmission of word data as well as bit data to the robot controller.

CC-LinkIE Field-compatible network base card

Installation module	AB6709-B-116
Transmission specifications	1Gbps (1000BASE-T)
No. of inputs	Max. 2,048
No. of outputs	Max. 2,048



CC-Link IE Field communication can be achieved by having the customer install an HMS Anybus-CompactCom module (order code: AB6709-B-116) in the network base card (2F-DQ535).

EtherNet/IP-compatible network base card

Installation module	AB6314-B-218
Transmission specifications	10BASE-T/100BASE-TX
No. of inputs	Max. 2,048
No. of outputs	Max. 2,048



EtherNet/IP communication can be achieved by having the customer install an HMS Anybus-CompactCom module (order code: AB6314-B-218) in the network base card (2D-TZ535).

PROFINET-compatible network base card

Installation module	AB6489-B
Transmission specifications	100BASE-TX
No. of inputs	Max. 2040
No. of outputs	Max. 2040



PROFINET IO communication can be achieved by having the customer install an HMS Anybus-CompactCom module (order code: AB6489-B) in the network base card (2D-TZ535-PN).

EtherCAT-compatible network base card

Installation module	AB6707-D-224
Transmission specification	100Mbps (100BASE-TX)
No. of inputs	Bit device : Max. 256 points Word device: Max. 128 points
No. of outputs	Bit device : Max. 256 points Word device: Max. 128 points



EtherCAT communication can be achieved by having the customer install an Anybus-CompactCom module (order code: AB6707-D-224) in the network base card (2F-DQ535-EC).

Safety option(4F-SF002-01)

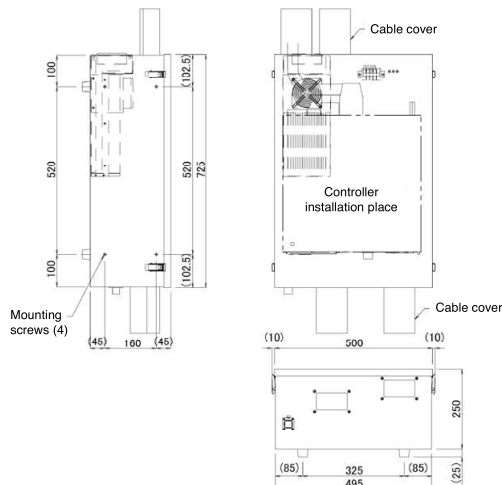


Allows people to approach and enter the work area without stopping the robot.

Safety expansion unit	Input signal	8 systems (duplicated)
	Output signal	4 systems (duplicated)
	RIO cable	1m
	External dimensions	115 × 168 × 100mm
	Applicable robot controller	CR800-R/Q/D

Controller protection box

Houses a controller and provides protection against dust and water. (IP54)



Safety option(4F-SF003-05)



Allows people to approach and enter the work area without stopping the robot.

Safety expansion unit	Input signal	8 systems (duplicated)
	Output signal	4 systems (duplicated)
	RIO cable	5m
	External dimensions	40×174.5×115mm
	Applicable robot controller	CR800-R/Q/D(CR800-05VD excludes) CR860-R/Q/D