

Camera Cables (CA-CH** Series)

Reference

For information about cameras that can be connected, see "List of maximum cable lengths by camera" (page 4-5).

Standard type (CA-CH**)

Model	Cable length	Weight
CA-CH3	3 m	290 g
CA-CH5	5 m	440 g
CA-CH10	10 m	880 g

High flex robotic type (CA-CH**R)

Model	Cable length	Weight
CA-CH3R	3 m	250 g
CA-CH5R	5 m	410 g
CA-CH10R	10 m	740 g
CA-CH17R*	17 m	1300 g

* CA-CH17R can only be connected to CA-035C/035M.

L-shaped connector type (CA-CH**L)

Model	Cable length	Weight
CA-CH3L	3 m	270 g
CA-CH5L	5 m	450 g
CA-CH10L	10 m	810 g

High flex robotic extension type (CA-CH3BE)

NOTICE

- CA-CH3BE cannot be used on its own because it is an extension cable. This is used by connecting CA-CH3/CH3R/CH3L/CH3X to the connector on the controller side.
- CA-CH3BE is comparable to a 7m cable, not a 3m cable due to the electric characteristics. Use this within the range of the maximum extension of the camera that is used by converting it by calculation to a 7m cable.

Model	Cable length	Weight
CA-CH3BE	3 m	280 g

Environment resistant type (CA-CH**P)

Model	Cable length	Weight
CA-CH3P	3 m	250 g
CA-CH10P	10 m	750 g

List of maximum cable lengths by camera

Up to 2 repeaters can be connected in series.

- The following table shows the maximum levels of extension and maximum cable length for each camera.
- Do not exceed the maximum camera cable length and maximum number of extensions allowed.

Camera model	Supported cable model		Supported repeater model* ³		Max. length		
					No. of repeaters		
	CA-CH**	CA-CN**	CA-CHX10U	CA-CNX10U	None	One	Two
CA-035C/035M	○		○		17m	27m	37m
CA-200C/200M	○		○		10m	20m	30m
CA-H035C/H035M	○		○		10m	20m	30m
CA-H048CX/H048MX	○		○		10m	20m	30m
CA-H200C/H200M	○		○		10m	20m	30m
CA-H200CX/H200MX	○		○		10m	20m	Unable to connect
CA-H500C/H500M	○		○		10m	20m	30m
CA-H500CX/H500MX	○		○		10m	20m	Unable to connect
CA-H2100C/H2100M	○		○		10m	20m	30m
CA-HS035C/HS035M	○		○		10m	20m	30m
CA-HS200C/HS200M	○		○		10m	20m	30m
CA-HX048C/HX048M	○		○		10m	20m	30m
CA-HX200C/HX200M	○		○		10m	20m	Unable to connect
CA-HX500C/HX500M	○		○		10m	20m	Unable to connect
CV-035C/035M		○		○	17m	34m	51m* ²
CV-200C/200M		○		○	10m	20m	30m
CV-H035C/H035M	○		○		10m	20m	30m
CV-H100C/H100M	○		○		10m	20m	30m
CV-H200C/H200M	○		○		10m	20m	Unable to connect
CV-H500C/H500M	○		○		10m	20m	Unable to connect
CV-H2100C/H2100M	○		○		10m	20m	30m
CV-S035C/S035M		○		○	10m	20m	Unable to connect
CV-S200C/S200M		○		○	10m	20m	30m* ¹

*1 Connection is not possible when doing a partial capture of less than 1,000 lines.

*2 Connection is not possible when doing a partial capture of less than 350 lines.

*3 A camera cable that is 10m or longer cannot be connected to the end of a repeater for applications where the camera will be used attached to a robot.

Therefore, the combinations CA-CH10X/CA-CN10X/CA-CH3X+CA-CH3BE/CA-CN3X+CA-CN3BE cannot be used.

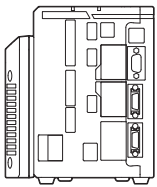
Examples of Cable Connection Between the Controller and a Camera

This section shows typical examples of cable connections from the controller to the camera. Check cable models that are compatible with the camera to be used in "List of maximum cable lengths by camera" (page 4-5) and use it as a reference for the system configuration to be used.

Connection Examples (When the CA-CH** Cable is Used)

Connecting with one camera cable

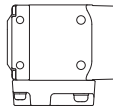
Controller
Example: CV-X472



Camera cable
Example: CA-CH3, CA-CH10R etc.

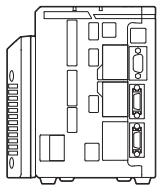


Camera
Example: CA-035C,
CA-H048MX etc.



Connecting by using one repeater to extend the camera cable

Controller
Example: CV-X472



Camera cable
Example: CA-CH3, CA-CH10R etc.



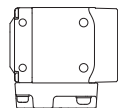
Repeater
CA-CHX10U



Repeater camera cable
Example:
CA-CH10X, CA-CH3BEX etc.

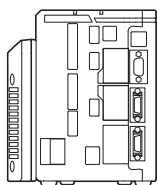


Camera
Example:
CA-035C,
CA-H048MX
etc.

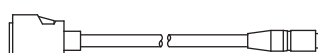


Connecting by using two repeaters to extend the camera cable

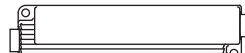
Controller
Example: CV-X472



Camera cable
Example: CA-CH3, CA-CH10R etc.



Repeater
CA-CHX10U



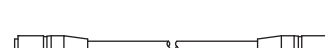
Repeater camera cable
Example:
CA-CH10X, CA-CH3BEX etc.



Repeater
CA-CHX10U



Repeater camera cable
Example:
CA-CH10X, CA-CH3BEX etc.



Camera
Example:
CA-035C,
CA-H048MX
etc.

