Camera Link Cable Assemblies for Machine Vision

Camera Link is an interface standard for digital video cameras, adopted by area sensor cameras, line sensor cameras, etc. used in manufacturing processes. It was introduced in 2000 by the U.S. Automated Industries Association (AIA).

Usage

Connecting a digital video camera using the Camera Link interface to a frame grabber

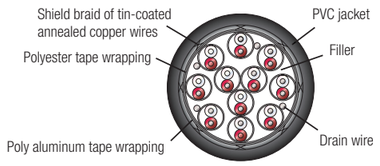
Features

- The standard cable, which complies with the Camera Link specifications, supports medium / full configurations (when using two cables).
- The flex resistant / high sliding and thin cables support base / medium configurations. *1
- The lineup allows users to choose cables suitable for usage, e.g. standard or thin cables for fixed parts and flex resistant / high sliding cable for moving parts.
- Signal lines are designed with manufacturing technology developed through the manufacturing of high-speed transmission cables for semiconductor production devices, to offer advanced accuracy in external diameter and relative permittivity.
- Thorough quality control achieves low skew performance and stable attenuation.
- The connectors are molded in either the straight or right angle type, with extension cables also available. *2
- These cables are UL compliant and have cleared the VW-1 test for flame resistance.
- These cables are RoHS Directive compliant.

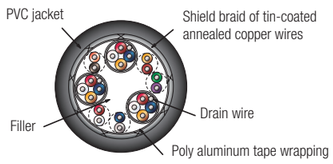
Structure and performance

Item	Standard cable	Flex resistant / high sliding cable	Thin cable
Signal conductor size (AWG)	28AWG	28AWG	28AWG
External jacket diameter (mm)	9.0	9.0	6.9
Voltage / temperature rating	30V／80℃		
Characteristic impedance（Ω）	100±10		
Within-pair skew (ps/m)	No more than 50		
Pair-to-pair skew (ps/m)	No more than 50		
Transmission distance (m) *3	No more than 10		
Flame resistance	VW-1		

*1 Different from the structure defined in the Camera Link specifications
*2 The Camera Link specifications stipulate the cable length to be the maximum of 10 meters. Transmission distance when an extension cable is used varies according to the performance of the camera and frame grabber involved. Please check their performance in advance when using an extension cable.
*3 The transmission distance shown is a nominal value at a clock frequency of 85MHz. It is not a guaranteed value as it may be affected by camera and frame grabber performance.



The structure of the standard and flex resistant / high sliding cables

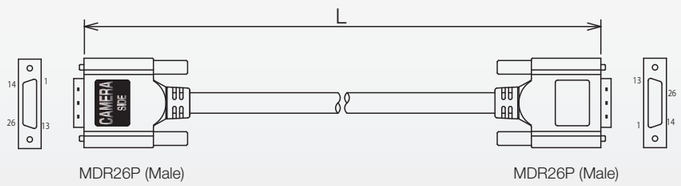


The structure of the thin cable

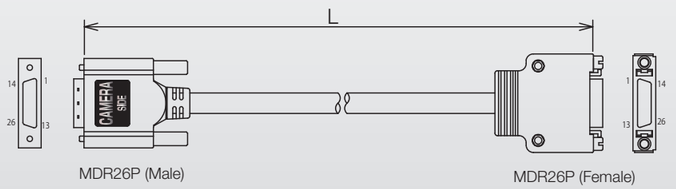
*Please contact us about structure of 6Quad flat cable because of customization.

External appearance | Examples of products in the Camera Link Cable Assembly lineup

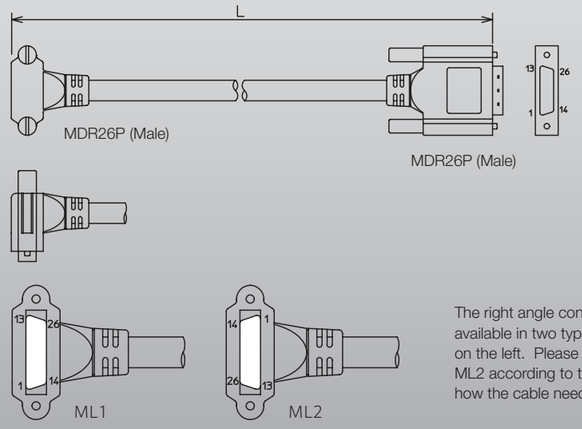
■ MDR26P Male (Straight) – MDR26P Male (Straight)



■ Extension cable: MDR26P Male (Straight) – MDR26P Female (Straight die casting)



■ MDR26P Male (Right angle) – MDR26P Male (Straight)



The right angle connector is available in two types as shown on the left. Please select ML1 or ML2 according to the direction of how the cable needs to come out.

Hirakawa Hewtech is a member of JIIA,AIA,EMVA and CMVU, which set machine vision standards.

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