

3M Industrial Camera Cable Assemblies

Expanding the possibilities in machine vision connections.

3M brings decades of expertise in signal transmission and electrical and mechanical cable design technology to the industrial electronics industry. In USB3 Vision®, the well-established Camera Link standard and the exciting possibilities of the CoaXPress® interface, we are dedicated to improving performance, robustness and reliability of machine vision systems – often at lower total system cost.

3M™ USB3 Vision Industrial Camera Cable Assemblies

With our options for USB3 Vision compatible cable assemblies, 3M brings new capability to the industry including some of the longest passive USB3 cable assemblies available, with transmission lengths of greater than 10 meters¹ and high flex options tested for over 100 million cycles.

3M™ USB3 Vision Industrial Camera Cable Assembly, 1U30A Series

- Our standard USB3 cable assembly, designed for static applications
- Reliable 5Gbps transmission up to 7m¹
- Longer lengths available up to 10m, test with specific equipment to verify results
- Meets A3 Vision standard and USB3.2 Gen 1 5Gbps
- Available with Standard A, Micro-B and Type C connectors
- Locking screws available on host and camera ends for a secure connection
- Right angle options available for Micro-B connectors – up, down, right, or left

3M™ USB3 Vision Industrial Camera Cable Assembly, 1U30E Series

- Our longest length USB3 cable assembly, designed for static applications
- Reliable 5Gbps transmission up to 11m¹
- Longer lengths available up to 14m, test with specific equipment to verify results
- Compatible with A3 Vision standard and USB3.2 Gen 1 5Gbps
- Available with Standard A and Micro-B connectors
- Locking screws available on host and camera ends for a secure connection

3M™ USB3 Vision Industrial Camera Cable Assembly, 1U30S Series

- Our standard flex USB3 cable assembly, designed for repetitive-motion applications
- Reliable 5Gbps transmission up to 5m¹
- Longer lengths available up to 6m, test with specific equipment to verify results
- Tested for >10 million cycles with no interruption in transmission
- Compatible with A3 Vision standard and USB3.2 Gen 1 5Gbps
- Available with Standard A and Micro-B connectors
- Locking screws available on host and camera ends for a secure connection

3M™ USB3 Vision Industrial Camera Cable Assembly, 1U30G Series

- Our premium high flex USB3 cable assembly, designed for high repetitive-motion applications
- Reliable 5Gbps transmission up to 7m¹
- Longer lengths available up to 8m, test with specific equipment to verify results
- Tested for >100 million cycles with no interruption in transmission
- Compatible with A3 Vision standard and USB3.2 Gen 1 5Gbps
- Available with Standard A and Micro-B connectors
- Locking screws available on host and camera ends for a secure connection



((1) Tested in 3M laboratory using USB3.2 Gen 1 cameras)

3M™ Camera Link Industrial Camera Cable Assemblies

As one of the originators of the Camera Link standard, 3M provides total interconnect solutions for Camera Link industrial camera systems. 3M offers a wide variety of MDR and SDR connectors as well as Camera Link and PoCL cables to meet nearly any Machine Vision requirement.

3M™ Camera Link Industrial Camera Cable Assembly, MDR, 14×26 Series

- Ideal for connecting machine vision cameras to frame grabber boards
- Camera side MDR connector is available in straight, upward and downward versions for space savings and design flexibility
- Frame grabber side features a Starlight MDR connector
- Available in base, medium and full configurations, PoCL/non-PoCL, and versions for non-motion and motion applications
- Thumbscrews provide rugged retention even in applications requiring repetitive motion or with high vibration

3M™ Camera Link Industrial Camera Cable Assembly, MDR, 1WL26 Series

- Excellent for use with 1M x 26-x5xx or 14 × 26 cables to extend Camera Link connections
- Features MDR 26-position receptacle connector on one end MDR 26-position plug connector on the other
- Available in base medium and full configurations, non-motion and motion applications
- Receptable connector features EMI shielded junction shell
- Thumbscrews provide rugged retention even in applications requiring repetitive motion or with high vibration

3M™ Camera Link Industrial Camera Cable Assembly, MDR/SDR, 1Mx26-x5xx Series

- Ideal for connecting machine vision cameras to frame grabber boards
- Available in base-medium and full configurations, PoCL/non-PoCL, and versions for non-motion and motion applications
- Camera side MDR plug connector is available in straight, upward and downward versions
- Camera side SDR plug connector is available in straight, upward, downward, left-hand and right-hand configurations for space savings and design flexibility

3M™ Camera Link Industrial Camera Cable Assembly, MDR/SDR, 1Mx26-xFxx Series

- Excellent for use with 1M x 26-x5xx or 14 × 26 cables to extend Camera Link system applications
- It features MDR 26-position receptacle connector with EMI shielded junction shell on one end and SDR 26-position plug connector on the other
- Available in base-medium and full configurations, non-motion and motion applications
- Thumbscrews provide rugged retention even in applications requiring repetitive motion or with high vibration

3M™ Camera Link Industrial Camera Cable Assembly, SDR, 1Sx26-x1xx Series

- Ideal for connecting machine vision cameras to frame grabber boards
- Available in base-medium and full configurations, PoCL/non-PoCL, non-motion and motion applications
- Camera side SDR connector is available in straight, upward and downward versions
- Frame grabber side features Starlight SDR connector
- Thumbscrews provide rugged retention even in applications requiring repetitive motion or with high vibration



3M™ MDR/SDR Boardmount Connectors

Our selection of 0.050", 1.27 mm pitch MDR and 0.80 mm SDR boardmount connectors is available on all 3M™ Industrial Camera Cable Assemblies. These shielded MDR and SDR connectors feature 26-position connectivity and wiper-on-wiper contact for reliable repetitive plugging.

- Includes surface mount, through-hole, vertical and right-angle versions
- Wiper-on-wiper contact allows for reliable repetitive plugging
- Die cast or molded metal cases add rugged durability
- Screw or ground locks and on-board jack sockets make for reliable PCB retention
- PCT insulator material is available for surface-mount applications
- Available interface latch design helps increase connection stability
- Includes version for ultra-low signal skew, high data rate transmission



3M™ CoaXPress Industrial Camera Cable Assemblies

3M offers two types of CoaXPress cable assemblies: a standard flex motion version and a premium high flex version. These 2.0 CoaXPress compatible cable assemblies are available in either a single cable (OS or OG Series) or jacketed bundle of four cables (QS or QG Series), with CXP-6 (6.25Gbps) or CXP-12 (12.5Gbps) options. A wide range of connector options is available for each.

3M™ CoaXPress Industrial Camera Cable Assembly, OS and QS Series

- Verified to maintain a reliable signal when undergoing repeated flex motion for 20 million cycles (single cable)
- CXP transmission distances up to 8m for CXP-12 and up to 11m for CXP-6
- Available with any combination of connector types, DIN 1.0/2.3 or DIN Screw for CXP-6, BNC, Micro-BNC or Micro-BNC Right Angle for CXP-12



3M™ CoaXPress Industrial Camera Cable Assembly, OG and QG Series

- Highly durable cable that withstands some of the most challenging repeated motion applications
- Verified to maintain a reliable signal when undergoing repeated flex motion for 50 million cycles (single cable)
- CXP transmission distances up to 10m for CXP-12 and up to 13m for CXP-6
- Available with any combination of connector types, DIN 1.0/2.3 or DIN Screw for CXP-6, BNC, Micro-BNC or Micro-BNC Right Angle for CXP-12



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