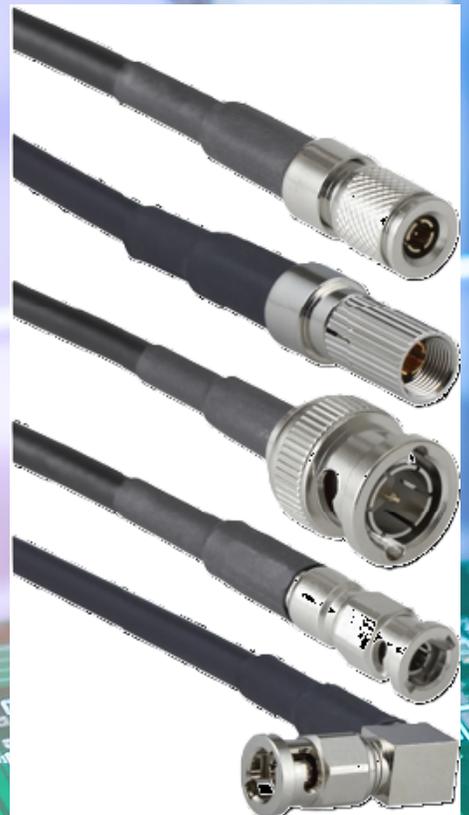# 3M™ CoaXPress Industrial Camera Cable Assembly, 1CX Series

Exploring the fast, flexible future of machine vision

The CoaXPress (CXP) interface is a widely used and versatile interface for high-speed and high-bandwidth camera systems. Allowing video, camera control and real-time triggering over a single coaxial cable, CXP can accommodate a range of requirements in machine vision – long transmission distances, high resolution, durability for repetitive-motion applications and more.

With the recent release of CoaXPress 2.0, CXP can deliver transmission speed up a maximum of 12.5 Gbps/channel. Options for CXP-6 at 6.25 Gbps/channel are also available.

Two CXP assemblies. Countless possibilities.

With the 3M™ CoaXPress Industrial Camera Cable Assembly, 1CX Series, 3M offers two types of CoaXPress-compatible cable assemblies that comply with CoaXPress 2.0. These versatile assemblies allow for performance in a wide range of fixed and motion applications in machine vision, from general motion systems to high-performance applications requiring long transmission distance and very high bending durability.

The 3M™ CoaXPress Industrial Camera Cable Assembly, 1CX Series features:

- High-speed data transfer up to 12.5 Gbps/channel (CXP-12 specification) Options for CXP-6 at 6.25 Gbps/channel are also available
- Available in a standard flex and premium high flex version
- The high flex version is verified to maintain a reliable signal for 50 million repeated flex cycles
- CXP cable assemblies are available in either a single cable (0S and 0G Series) or a jacketed bundle of four cables (QS and QG Series)
- CoaXPress 2.0 compliant
- Compliant with CE marking

Key features:

Longer transmission distance.

The 3M™ CoaXPress Industrial Camera Cable Assembly, 1CX Series delivers transmission distance up to 10m for CXP-12 and 13m for CXP-6, depending on camera equipment and configurations.

Dynamic bending durability.

The 3M™ CoaXPress Industrial Camera Cable Assembly, 1CX Series features high flex cables excellent for repetitive-motion applications. The 0G and QG series features repeated bending durability while maintaining a reliable signal of 50 million cycles.

## 3M™ CoaXPress Industrial Camera Cable Assembly, 0S 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, 0G 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

Dimensions: 3M™ CoaXPress Industrial Camera Cable Assembly, 1CX Series

(50)

(50)

Cable Length

(50)

(50)

Cable Length

(50)

(50)
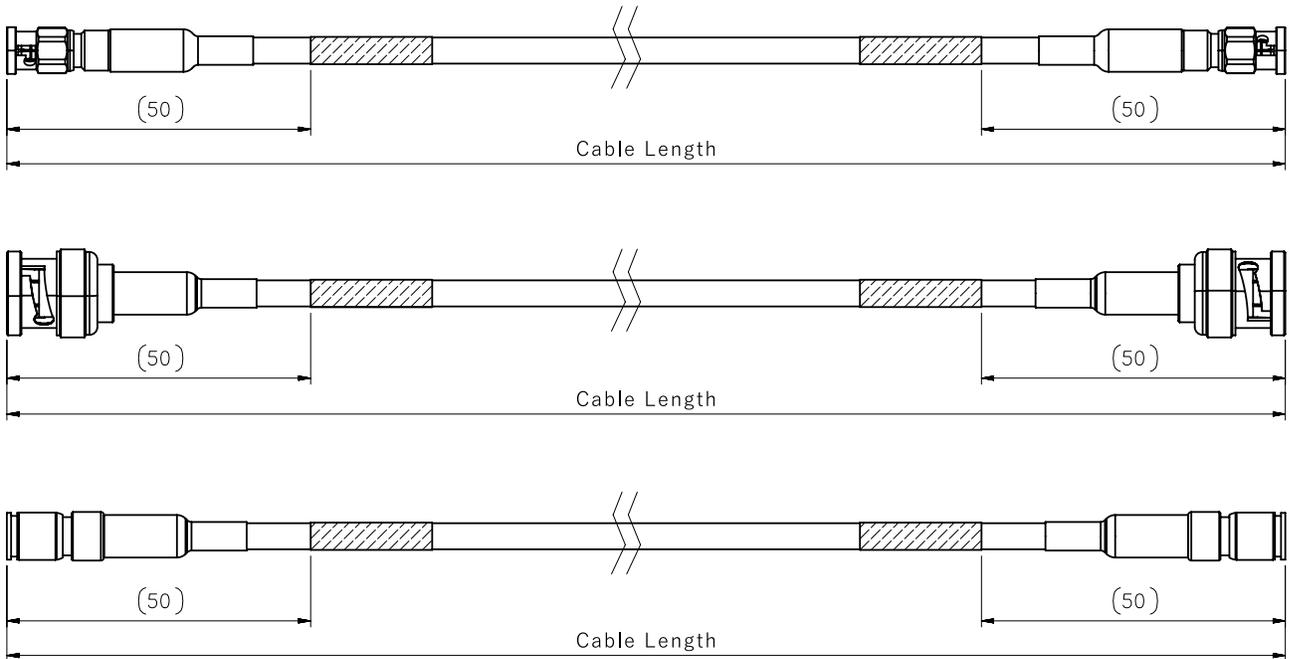
Cable Length

Ordering information

Part Number

1CXx-xx-0G-xxx.x

Cable length (m)

CXP type (bit rate)
CX6 = up to 6.25 Gbps
CX12 = up to 12.5 Gbps

Cable type
0S = Standard flex durable cable x1 single cable for motion application (Φ4.2)
0G = Premium flex durable x1 single cable for motion application (Φ4.3)
QS = Standard flex durable x4 multi channel cable for motion application (Φ12.0)
QG = Premium flex durable x4 multi channel cable for motion application (Φ12.1)

Connector type (end A)
1 = 1.0/2.3 DIN*
2 = BNC
3 = Micro BNC
4 = 1.0/2.3 DIN
5 = Micro BNC Right Angle

Connector type (end B)
1 = 1.0/2.3 DIN*
2 = BNC
3 = Micro-BNC
4 = 1.0/2.3 DIN
5 = Micro BNC Right Angle

Connectors of different types can be combined. Contact 3M for more information.
*1.0/2.3 DIN is not available for CX12

END A

END B

PRODUCT LABEL

CE MARK LABEL
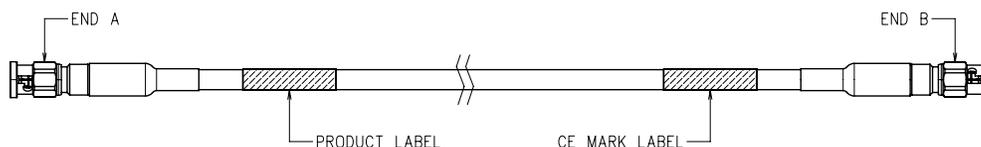
3M™ CoaXPress Industrial Camera Cable Assembly, 1CXx-xx-0S

Harness Length	Part Number				
	Micro-BNC Connector (both A and B)	BNC Connector (both A and B)	1.0/2.3 DIN Connector (both A and B)	DIN screw Connector (both A and B)	Micro-BNC (A) and Micro-BNC Right Angle (B)
3m	1CX12-33-0S-003.0	1CX12-22-0S-003.0	1CX6-11-0S-003.0	1CX6-44-0S-003.0	1CX12-35-0S-003.0
4m	1CX12-33-0S-004.0	1CX12-22-0S-004.0	1CX6-11-0S-004.0	1CX6-44-0S-004.0	1CX12-35-0S-004.0
5m	1CX12-33-0S-005.0	1CX12-22-0S-005.0	1CX6-11-0S-005.0	1CX6-44-0S-005.0	1CX12-35-0S-005.0
6m	1CX12-33-0S-006.0	1CX12-22-0S-006.0	1CX6-11-0S-006.0	1CX6-44-0S-006.0	CX12-35-0S-006.0
7m	1CX12-33-0S-007.0	1CX12-22-0S-007.0	1CX6-11-0S-007.0	1CX6-44-0S-007.0	1CX12-35-0S-007.0
8m	1CX12-33-0S-008.0	1CX12-22-0S-008.0	1CX6-11-0S-008.0	1CX6-44-0S-008.0	1CX12-35-0S-008.0
9m	1CX12-33-0S-009.0	1CX12-22-0S-009.0	1CX6-11-0S-009.0	1CX6-44-0S-009.0	1CX12-35-0S-009.0

3M™ CoaXPress Industrial Camera Cable Assembly, 1CXx-xx-0G

Harness Length	Part Number
	Micro-BNC Connector (both A and B)
3m	1CX12-33-0G-003.0
4m	1CX12-33-0G-004.0
5m	1CX12-33-0G-005.0
6m	1CX12-33-0G-006.0
7m	1CX12-33-0G-007.0
8m	1CX12-33-0G-008.0
9m	1CX12-33-0G-009.0
10m	1CX12-33-0G-010.0

3M™ CoaXPress Industrial Camera Cable Assembly, 1CXx-xx-QS

	Part Number
Harness Length	**Micro-BNC Connector (both A and B)**
3m	1CX12-33-QS-003.0
4m	1CX12-33-QS-004.0
5m	1CX12-33-QS-005.0
6m	1CX12-33-QS-006.0
7m	1CX12-33-QS-007.0
8m	1CX12-33-QS-008.0

3M™ CoaXPress Industrial Camera Cable Assembly, 1CXx-xx-QG

	Part Number
Harness Length	**Micro-BNC Connector (both A and B)**
3m	1CX12-33-QG-003.0
4m	1CX12-33-QG-004.0
5m	1CX12-33-QG-005.0
6m	1CX12-33-QG-006.0
7m	1CX12-33-QG-007.0
8m	1CX12-33-QG-008.0
9m	1CX12-33-QG-009.0
10m	1CX12-33-QG-010.0

Connector Type	Details
1.0/2.3 DIN	• Knurls for gripping • Push/pull lock and release • Only available on CXP-6
1.0/2.3 DIN (Screw Type)	• Knurls for gripping • Screw type for secure connection • Only available on CXP-6
BNC	• Knurls for gripping • Twist-to-lock for secure connection • Only available on S Series
Micro-BNC	• Hex nut connector style • Twist-to-lock for secure connection • Available on all CXP-6 and CXP-12
Micro-BNC Right Angle Type	• Hex nut connector style • Twist-to-lock for secure connection • Available on all CXP-6 and CXP-12 • Only available on QS Series on X4

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