

2.5 X2X Link cable

2.5.1 Order data

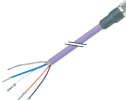
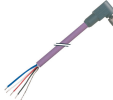
Length	Short description, model number					
	X2X Link connection cable		X2X Link attachment cable		X2X Link open cable	
0.2 m	X67CA0X01.0002	X67CA0X11.0002				
1.0 m	X67CA0X01.0010	X67CA0X11.0010				
1.5 m	X67CA0X01.0015					
2.0 m	X67CA0X01.0020	X67CA0X11.0020	X67CA0X21.0020		X67CA0X41.0020	X67CA0X51.0020
5.0 m	X67CA0X01.0050	X67CA0X11.0050	X67CA0X21.0050	X67CA0X31.0050	X67CA0X41.0050	X67CA0X51.0050
10.0 m	X67CA0X01.0100	X67CA0X11.0100				
15.0 m	X67CA0X01.0150	X67CA0X11.0150	X67CA0X21.0150	X67CA0X31.0150		
25.0 m	X67CA0X01.0250	X67CA0X11.0250		X67CA0X31.0500		
50.0 m	X67CA0X01.0500	X67CA0X11.0500	X67CA0X21.0500			
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Table 539: X67CA0Xxx X2X Link cable - Order data

Length	Short description, model number	
	X2X Link cable for custom assembly	
100.0 m	X67CA0X99.1000	
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Table 540: X67CA0X99.1000 X2X Link cable for custom assembly - Order data

2.5.2 Technical data

Product ID	X2X Link cable	
General information	Supply lines	Data cables
Cable cross section mm ² AWG	2 x 0.34 mm ² 2 x 22 AWG	2 x 0.25 mm ² 2 x 24 AWG
Durability	Good chemical and oil resistance Flame resistant according to IEC 332.1	
Lines (wires)		
Signal lines	0.34 mm ² (22 AWG), tinned Cu wire	0.25 mm ² (24 AWG), tinned Cu wire
Wire insulation	PE	Cell PE
Wire colors	Red, black	Light blue, white
Cable structure		
Signal lines Stranding Shield	Twisted pair wires Paired shield with aluminum foil	Twisted pair wires Paired shield with aluminum foil
Cable stranding	With additional wire 22 AWG/19	
Entire shielding	Tinned Cu filaments	
Outer sheathing Material Characteristics Color Labeling	PUR mixture Halogen-free Purple B&R X67CA0Xxx.xxxx	
Electrical characteristics		
Conductor resistance (loop)	<180 Ω /km at 20°C	
Degree of insulation	Category II according to IEC 60664-1	
Installed voltage	Max. 125 V AC/DC	
Rated current	Max. 4 A / contact	
Mechanical characteristics		
Protection type - plug/coupling	IP67, only when screwed in	
Temperature range With fixed installation With flexible installation	-25 to +80°C -20 to +80°C	
Outer diameter	6.9 mm $\pm$ 0.2 mm	
Flex radius With fixed installation With flexible installation	≥ 7.5 x outer diameter 7.0 mm ≥ 15 x outer diameter 7.0 mm	
Drag chain data Speed Acceleration Flex cycles	Max. 3 m/s Max. 7 m/s ² -	

Table 541: X67CA0Xxx X2X Link cable - Technical data

2.5.3 X67CA0X01.xxxx

Dimensions				
Pin assignments				
Plugs	Pin	Name	Wire colors	Socket
 B-coded	1	X2X+	Red	 B-coded
	2	X2X	White	
	3	X2X⊥	Black	
	4	X2X⊥	Blue	
	M12 ¹⁾	SHLD	Shield	

Table 542: X67CA0X01 X2X Link connection cable - Measurements and pin assignments

1) Shielding 360° around M12 knurled screw.

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X01.0002	2	25	+2
X67CA0X01.0010	10	100	+2
X67CA0X01.0015	15	150	+2
X67CA0X01.0020	20	200	+5
X67CA0X01.0050	50	500	+10
X67CA0X01.0100	100	1000	+10
X67CA0X01.0150	150	1500	+10
X67CA0X01.0250	250	2500	+10
X67CA0X01.0500	500	5000	+10

Table 543: X67CA0X01 X2X Link connection cable - Cable lengths

2.5.4 X67CA0X11.xxxx

Dimensions				
Pin assignments				
Plugs	Pin	Name	Wire colors	Socket
 B-coded	1	X2X+	Red	 B-coded
	2	X2X	White	
	3	X2X⊥	Black	
	4	X2X\	Blue	
	M12 ¹⁾	SHLD	Shield	

Table 544: X67CA0X11 X2X Link connection cable - Measurements and pin assignments

1) Shielding 360° around M12 knurled screw.

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X11.0002	2	25	+2
X67CA0X11.0010	10	100	+2
X67CA0X11.0020	20	200	+5
X67CA0X11.0050	50	500	+10
X67CA0X11.0100	100	1000	+10
X67CA0X11.0150	150	1500	+10
X67CA0X11.0250	250	2500	+10
X67CA0X11.0500	500	5000	+10

Table 545: X67CA0X11 X2X Link connection cable - Cable lengths

2.5.5 X67CA0X21.xxxx

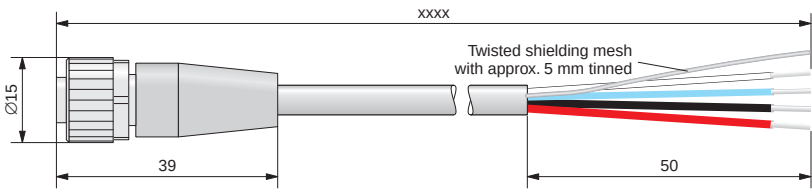
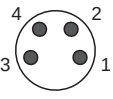
Dimensions				
				
Pin assignments				
Socket	Pin	Name	Wire colors	Open
 B-coded	1	X2X+	Red	For custom wiring
	2	X2X	White	
	3	X2X⊥	Black	
	4	X2X⊥	Blue	
	M12 ¹⁾	SHLD	Shield	

Table 546: X67CA0X21 X2X Link attachment cable - Measurements and pin assignments

1) Shielding 360° around M12 knurled screw.

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X21.0020	20	200	+10
X67CA0X21.0050	50	500	+10
X67CA0X21.0150	150	1500	+10
X67CA0X21.0500	500	5000	+10

Table 547: X67CA0X21 X2X Link connection cable - Cable lengths

Information:

See note in section 2.5.10 "X2X Link interface connection with internal voltage supply" on page 684

2.5.6 X67CA0X31.xxxx

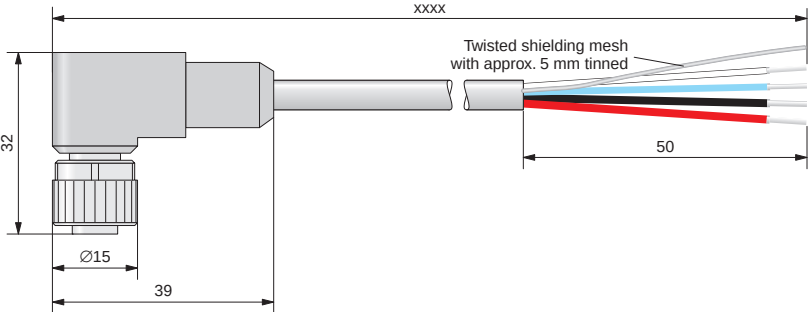
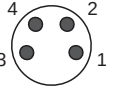
Dimensions				
				
Pin assignments				
Socket	Pin	Name	Wire colors	Open
 B-coded	1	X2X+	Red	For custom wiring
	2	X2X	White	
	3	X2X⊥	Black	
	4	X2X\	Blue	
	M12 ¹⁾	SHLD	Shield	

Table 548: X67CA0X31 X2X Link attachment cable - Measurements and pin assignments

1) Shielding 360° around M12 knurled screw.

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X31.0050	50	500	+10
X67CA0X31.0150	150	1500	+10
X67CA0X31.0500	500	5000	+10

Table 549: X67CA0X31 X2X Link connection cable - Cable lengths

Information:

See note in section 2.5.10 "X2X Link interface connection with internal voltage supply" on page 684

2.5.7 X67CA0X41.xxxx

Dimensions				
Pin assignments				
Plugs	Pin	Name	Wire colors	Open
 B-coded	1	X2X+	Red	For custom wiring
	2	X2X	White	
	3	X2X⊥	Black	
	4	X2X\	Blue	
	M12 ¹⁾	SHLD	Shield	

Table 550: X67CA0X41 X2X Link open cable - Measurements and pin assignments

1) Shielding 360° around M12 knurled screw.

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X41.0020	20	200	+10
X67CA0X41.0050	50	500	+10

Table 551: X67CA0X41 X2X Link connection cable - Cable lengths

Information:

See note in section 2.5.10 "X2X Link interface connection with internal voltage supply" on page 684

2.5.8 X67CA0X51.xxxx

Dimensions				
Pin assignments				
Plugs	Pin	Name	Wire colors	Open
 B-coded	1	X2X+	Red	For custom wiring
	2	X2X	White	
	3	X2X⊥	Black	
	4	X2X\	Blue	
	M12 ¹⁾	SHLD	Shield	

Table 552: X67CA0X51 X2X Link open cable - Measurements and pin assignments

1) Shielding 360° around M12 knurled screw.

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X51.0020	20	200	+10
X67CA0X51.0050	50	500	+10

Table 553: X67CA0X51 X2X Link connection cable - Cable lengths

Information:

See note in section 2.5.10 "X2X Link interface connection with internal voltage supply" on page 684

2.5.9 X67CA0X99.1000

Dimensions			
			
Pin assignments			
	Name	Wire colors	
For custom wiring	X2X+	Red	For custom wiring
	X2X	White	
	X2X _L	Black	
	X2X _I	Blue	
	SHLD	Shield	

Table 554: X67CA3P00 X2X Link cable for custom assembly - Measurements and pin assignments

Cable lengths			
Model number	Standard length [dm]	Actual length [cm]	Tolerance [cm]
X67CA0X99.1000	1000	10000	-

Table 555: X67CA3P00 X2X Link cable for custom assembly - Cable lengths

2.5.10 X2X Link interface connection with internal voltage supply

Information:

The supply for the X2X Link is fed via the red wire. The X2X Link is internally supplied on the IF789 or LS189. The external supply is therefore not required.

In order to prevent short circuits on the housing, shield mesh or shield line, the red wire end must be isolated e. g. using a heat shrink tubing.

Grounding the cable shield improves the EMC properties. One side should be properly grounded near the plug.

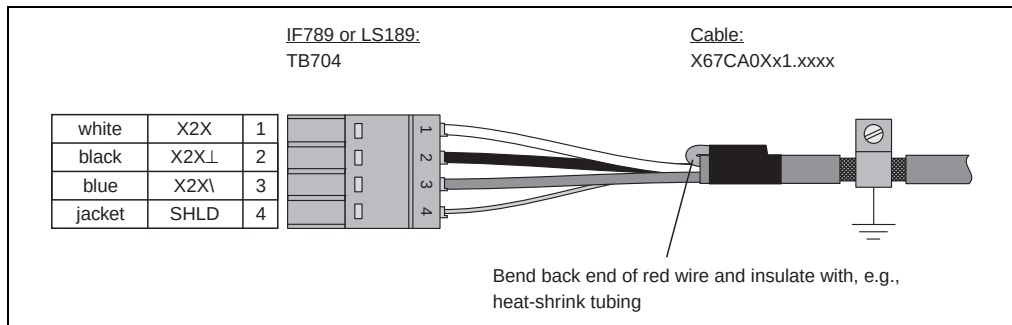


Figure 207: X2X link attachment cable installation diagram

Information:

High electromagnetic interference can cause transfer errors if the cable shield is not grounded.