



## FX3-MOC Y-CABLE

**SICK**  
Sensor Intelligence.



## Ordering information

Type	Part no.
FX3-MOC Y-CABLE	2121172

Other models and accessories → [www.sick.com/](http://www.sick.com/)

## Detailed technical data

### Classifications

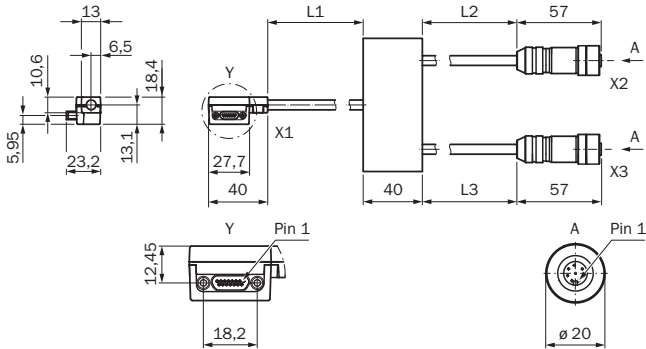
<b>eCl@ss 5.0</b>	19030312
<b>eCl@ss 5.1.4</b>	19030312
<b>eCl@ss 6.0</b>	27060304
<b>eCl@ss 6.2</b>	27060304
<b>eCl@ss 7.0</b>	27060304
<b>eCl@ss 8.0</b>	27060304
<b>eCl@ss 8.1</b>	27060304
<b>eCl@ss 9.0</b>	27060304
<b>eCl@ss 10.0</b>	27060304
<b>eCl@ss 11.0</b>	27060304
<b>eCl@ss 12.0</b>	27060304
<b>ETIM 5.0</b>	EC000830
<b>ETIM 6.0</b>	EC000830
<b>ETIM 7.0</b>	EC003249
<b>ETIM 8.0</b>	EC003249
<b>UNSPSC 16.0901</b>	26121604

### Technical specifications

<b>Accessory family</b>	Other adapters
<b>Connection type head A</b>	Male connector, Micro D-Sub, 15-pin, angled
<b>Connection type head B</b>	2 x female connector, M12, 8-pin, straight
<b>Locking plug connector</b>	Screw connection
<b>Connecting cable</b>	1 m, for details see dimensional drawings, PVC
<b>Cable material</b>	PVC
<b>Cable color</b>	Black
<b>Conductor cross section</b>	AWG28 AWG26
<b>Cable diameter</b>	6.6 mm, 6.2 mm
<b>Housing material</b>	Plastic/metal
<b>Housing color</b>	Black
<b>Locking nut material</b>	Steel
<b>Width across flats</b>	Slot
<b>Shielding</b>	Galvanized copper braiding, opt. density approx. 85%

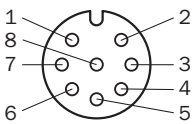
<b>Bending radius</b>	Flexible use	> 12 x cable diameter
	Stationary position	> 5 x cable diameter
<b>Ambient operating temperature</b>	-25 °C ... +80 °C, stationary position -10 °C ... +80 °C, flexible use	
<b>Description</b>	For connecting the Motion Control Module FX3-MOC with two HTL, TTL, or sin/cos encoders	

Dimensional drawing (Dimensions in mm (inch))



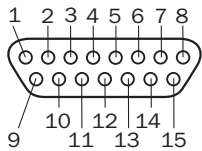
Part no.	L1	L2	L3
2071072	100	750	750
2094381	210	210	410
2100634	210	2.735	2.735
2116199	160	140	140
2117540	1.900	490	270
2117541	2.700	690	190
2121172	100	950	950
2121173	210	1.500	1.500
2123169	250	260	260

PIN assignment



2x M12 female connector, 8-pin, A-coded						Male connector, Micro D-Sub, 15-pin		
Encoder 1 (E1)	Sin/cos encoder		A/B incremental encoder			SSI encoder	FX3-MOC	
Pin	Sin/Cos	HIPERFACE®	2 output pairs (HTL 24 V, HTL 12 V, TTL)	2 outputs (HTL 24 V, HTL 12 V, TTL)	2 output pairs (RS-422)	SSI	Pin	Designation
1	Sin-	Sin_Ref	B-	GND	-	-	10	ENC1_B-
2	Sin+	Sin	B+	B	-	-	2	ENC1_B+

2x M12 female connector, 8-pin, A-coded							Male connector, Micro D-Sub, 15-pin	
3	Cos-	Cos_Ref	A-	GND	A-	Data-	9	ENC1_A-
4	Cos+	Cos	A+	A	A+	Data+	1	ENC1_A+
5	-	-	-	-	B-	Clock-	11	ENC1_C-
6	-	-	-	-	B+	Clock+	3	ENC1_C+
7	GND supply voltage						12	ENC_OV
8	24 V supply voltage						4	ENC1_24V
Encoder 2 (E2)	Sin/cos encoder		A/B incremental encoder			SSI encoder	FX3-MOC	
Pin	Sin/Cos	HIPERFACE®	2 output pairs (HTL 24 V, HTL 12 V, TTL)	2 outputs (HTL 24 V, HTL 12 V, TTL)	2 output pairs (RS-422)	SSI	Pin	Designation
1	Sin-	Sin_Ref	B+	GND	-	-	14	ENC2_B-
2	Sin+	Sin	B-	B	-	-	7	ENC2_B+
3	Cos-	Cos_Ref	A-	GND	-	Data-	15	ENC2_A-
4	Cos+	Cos	A+	A	-	Data+	8	ENC2_A+
5	-	-	-	-	-	Clock-	13	ENC2_C-
6	-	-	-	-	-	Clock+	6	ENC2_C+
7	GND supply voltage						12	ENC_OV
8	24 V supply voltage						5	ENC2_24V



2x M12 female connector, 8-pin, A-coded							Male connector, Micro D-Sub, 15-pin	
Encoder 1 (E1)	Sin/cos encoder		A/B incremental encoder			SSI encoder	FX3-MOC	
Pin	Sin/Cos	HIPERFACE®	2 output pairs (HTL 24 V, HTL 12 V, TTL)	2 outputs (HTL 24 V, HTL 12 V, TTL)	2 output pairs (RS-422)	SSI	Pin	Designation
1	Sin-	Sin_Ref	B-	GND	-	-	10	ENC1_B-
2	Sin+	Sin	B+	B	-	-	2	ENC1_B+
3	Cos-	Cos_Ref	A-	GND	A-	Data-	9	ENC1_A-
4	Cos+	Cos	A+	A	A+	Data+	1	ENC1_A+
5	-	-	-	-	B-	Clock-	11	ENC1_C-
6	-	-	-	-	B+	Clock+	3	ENC1_C+
7	GND supply voltage						12	ENC_OV
8	24 V supply voltage						4	ENC1_24V
Encoder 2 (E2)	Sin/cos encoder		A/B incremental encoder			SSI encoder	FX3-MOC	
Pin	Sin/Cos	HIPERFACE®	2 output pairs (HTL 24 V, HTL 12 V, TTL)	2 outputs (HTL 24 V, HTL 12 V, TTL)	2 output pairs (RS-422)	SSI	Pin	Designation
1	Sin-	Sin_Ref	B+	GND	-	-	14	ENC2_B-

2x M12 female connector, 8-pin, A-coded							Male connector, Micro D-Sub, 15-pin	
2	Sin+	Sin	B-	B	-	-	7	ENC2_B+
3	Cos-	Cos_Ref	A-	GND	-	Data-	15	ENC2_A-
4	Cos+	Cos	A+	A	-	Data+	8	ENC2_A+
5	-	-	-	-	-	Clock-	13	ENC2_C-
6	-	-	-	-	-	Clock+	6	ENC2_C+
7	GND supply voltage						12	ENC_0V
8	24 V supply voltage						5	ENC2_24V

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)