Data sheet

FX3-MOC Y-CABLE

Y- and T-splitters

CONNECTORS AND CABLES

SICK
Sensor Intelligence.

Ordering information

Type	part no.
FX3-MOC Y-CABLE	2121172

Other models and accessories → www.sick.com/Y-_and_T-splitters

Detailed technical data

Technical specifications

Connection type head A	Male connector, Micro D-Sub, 15-pin, angled
Connection type head B	Female connector, M12, 8-pin, straight, A-coded
Connection type head C	Female connector, M12, 8-pin, straight, A-coded
Locking plug connector	Screw connection
Connecting cable	1 m, for details see dimensional drawings, PVC and PP
Cable material	PVC and PP
Cable color	Black
Conductor cross section	AWG28, AWG26
Cable diameter	6.6 mm, 6.2 mm
Housing material	Plastic/metal
Housing color	Black
Locking nut material	Steel
Width across flats	Slot
Shielding	Shielded
Note	The connection cable is designed for the use of sine-cosine encoders. If other encoders are used, other protective measures must be taken in the event of cable breakage or a male connector coming loose.
Bending radius	
Flexible use	> 10 x cable diameter
Stationary position	> 5 x cable diameter
Operating temperature	–25 °C ... +80 °C, stationary position –10 °C ... +80 °C, flexible use
Description	Y-cable to connect a Flexi Soft Motion Control Module FX3-MOC with two encoders (HTL, TTL, Sin/Cos, SSI).

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓

Classifications

ECLASS 5.0	19030312
ECLASS 5.1.4	19030312
ECLASS 6.0	27060304

ECLASS 6.2	27060304
ECLASS 7.0	27060304
ECLASS 8.0	27060304
ECLASS 8.1	27060304
ECLASS 9.0	27060304
ECLASS 10.0	27060304
ECLASS 11.0	27060304
ECLASS 12.0	27060304
ETIM 5.0	EC000830
ETIM 6.0	EC000830
ETIM 7.0	EC003249
ETIM 8.0	EC003249
UNSPSC 16.0901	26121604

Dimensional drawing And cable lengths L1/L2/L3 (click and scroll down)

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
2123169	250	260	260

pin assignment (click and scroll down)

Head A		Head B							Head C						
Male connector, Micro D-Sub, 15-pin		Female connector M12, 8-pin, A-coded							Female connector M12, 8-pin, A-coded						
Head A for connection to FX3-MOC		Head B for connection encoder E1	Sin/cos encoder		A/B incremental encoder			SSI encoder	Head C for connection encoder E2	Sin/cos encoder		A/B incremental encoder			SSI encoder
Pin	Designation	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	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
1	ENC1_A+	4	Cos+	Cos	A+	A	A+	Data+	–	–	–	–	–	–	–
2	ENC1_B+	2	Sin+	Sin	B+	B	–	–	–	–	–	–	–	–	–
3	ENC1_C+	6	–	–	–	–	B+	Clock+	–	–	–	–	–	–	–
4	ENC1_24V	8	24 V supply voltage						–	–	–	–	–	–	–
5	ENC2_24V	–	–	–	–	–	–	–	8	24 V supply voltage					
6	ENC2_C+	–	–	–	–	–	–	–	6	–	–	–	–	–	Clock+
7	ENC2_B+	–	–	–	–	–	–	–	2	Sin+	Sin	B–	B	–	–
8	ENC2_A+	–	–	–	–	–	–	–	4	Cos+	Cos	A+	A	–	Data+
9	ENC1_A–	3	Cos–	Cos_Ref	A–	GND	A–	Data–	–	–	–	–	–	–	–
10	ENC1_B–	1	Sin–	Sin_Ref	B–	GND	–	–	–	–	–	–	–	–	–
11	ENC1_C–	5	–	–	–	–	B–	Clock–	–	–	–	–	–	–	–
12	ENC_0V	7	GND supply voltage						7	GND supply voltage					
13	ENC2_C–	–	–	–	–	–	–	–	5	–	–	–	–	–	Clock–
14	ENC2_B–	–	–	–	–	–	–	–	1	Sin–	Sin_Ref	B+	GND	–	–
15	ENC2_A–	–	–	–	–	–	–	–	3	Cos–	Cos_Ref	A–	GND	–	Data–

pin assignment (click and scroll down)

Head A		Head B							Head C						
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Pin	Designation	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	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
1	ENC1_A+	4	Cos+	Cos	A+	A	A+	Data+	–	–	–	–	–	–	–
2	ENC1_B+	2	Sin+	Sin	B+	B	–	–	–	–	–	–	–	–	–
3	ENC1_C+	6	–	–	–	–	B+	Clock+	–	–	–	–	–	–	–
4	ENC1_24V	8	24 V supply voltage						–	–	–	–	–	–	–
5	ENC2_24V	–	–	–	–	–	–	–	8	24 V supply voltage					
6	ENC2_C+	–	–	–	–	–	–	–	6	–	–	–	–	–	Clock+
7	ENC2_B+	–	–	–	–	–	–	–	2	Sin+	Sin	B–	B	–	–
8	ENC2_A+	–	–	–	–	–	–	–	4	Cos+	Cos	A+	A	–	Data+
9	ENC1_A–	3	Cos–	Cos_Ref	A–	GND	A–	Data–	–	–	–	–	–	–	–
10	ENC1_B–	1	Sin–	Sin_Ref	B–	GND	–	–	–	–	–	–	–	–	–
11	ENC1_C–	5	–	–	–	–	B–	Clock–	–	–	–	–	–	–	–
12	ENC_0V	7	GND supply voltage						7	GND supply voltage					
13	ENC2_C–	–	–	–	–	–	–	–	5	–	–	–	–	–	Clock–
14	ENC2_B–	–	–	–	–	–	–	–	1	Sin–	Sin_Ref	B+	GND	–	–
15	ENC2_A–	–	–	–	–	–	–	–	3	Cos–	Cos_Ref	A–	GND	–	Data–

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.

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