Draw-wire encoder A40 / A41 | Compact-Line

Measuring length A40 max. 1 m
Measuring length A41 max. 2 m



The draw-wire encoders A40 and A41 with analog output is characterized by its compact design. They are available with a potentiometer, voltage or current output.

RoHS

Analog output



Wide temperature range | High protection level | Reverse polarity protection | Easy mounting | Compact design

Compact and simple

- Measuring length up to 2000 mm.
- For applications with a low traversing speed.
- Easy to install.
- Robust zinc die-cast housing.

Order code draw-wire encoder

D5.350	X	.	A	XX	X	.	0000
Type	a			b	c		

a *Measuring range*
1 = 1000 mm
2 = 2000 mm

b *Output circuit*
11 = analog output 4 ... 20 mA
22 = analog output 0 ... 10 V DC
supply voltage 15 ... 28 V DC
33 = potentiometer output 10 kΩ

c *Type of connection*
1 = cable 2 m [6.56'] for measuring range 1000 mm: axial
for measuring range 2000 mm: radial
2 = radial M12 connector, 4-pin
(only available for measuring range 2000 mm)

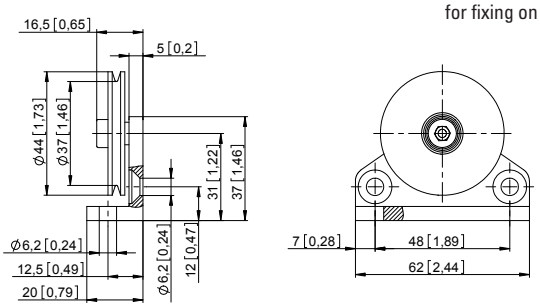
Accessories for draw-wire encoder	Dimensions in mm [inch]	Order no.

Guide pulley



Technical data:
- mounting bracket (anodized alum.)
- guide pulley (plastic POM)
- ball bearing (type 696-2R5)

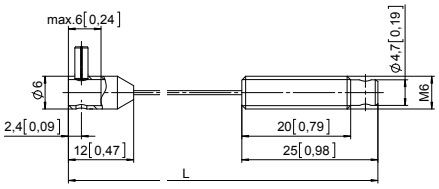
Scope of delivery:
- 2 x countersunk screws for lateral fixing
- 2 x hexagonal screws for fixing on a flat surface



8.0000.7000.0045

Extension cable (further on request)





Steel wire 2 m [6.56']	**8.0000.7000.0033**
Steel wire 5 m [16.40']	**8.0000.7000.0034**
Steel wire 10 m [32.81']	**8.0000.7000.0035**
Paraleine 2 m [6.56']	**8.0000.7000.0032**

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Cables and connectors		Order no.
Preassembled cables	M12 female connector with coupling nut, 4-pin, A coded, straight single ended 2 m [6.56'] PUR cable	**05.00.6061.6211.002M**
Connector, self-assem Connectors bly	M12 female connector with coupling nut, 4-pin, A coded, straight (plastic)	**05.B8141-0**
	M12 male connector with external thread, 4-pin, A coded, straight (metal/plastic)	**05.BS8141-0**
	M12 female connector with coupling nut, 4-pin, A coded, right-angle (plastic)	**05.B8241-0**

Further Kübler cables and connectors can be found at: kuebler.com/connection-technology

Technical data

Mechanical characteristics (draw-wire mechanics)

Measuring range	**1000 mm (A40)**	**2000 mm (A41)**
Speed max.	0.8 m/s	1 m/s
Acceleration max.	43.1 m/s²	43.1 m/s²
Working temperature	0 °C ... 50 °C [+32 °F ... +122 °F]	-10 °C ... +80 °C [+14 °F ... +176 °F]
Protection (sensor) acc. to EN 60529	IP50	IP65
Weight	approx. 200 g [7.06 oz]	approx. 320 g [11.29 oz]
Extension force F_{min}	2 N	
Repeat accuracy	±0.15 mm	
Linearity	±0.35 %	
Material housing	plastic / zinc die-cast	
wire	stainless-steel ø 0.45 mm plastic-coated	

Electrical characteristics

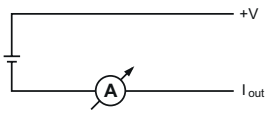
Analog output	0 ... 10 V	4 ... 20 mA	potentiometer 10 kΩ
Supply voltage	15 ... 28 V DC	–	–
Operating range	–	15 ... 28 V DC	max. 48 V DC
Temperature range	0 °C ... 50 °C [+32 °F ... +122 °F]	0 °C ... 50 °C [+32 °F ... +122 °F]	0 °C ... 50 °C [+32 °F ... +122 °F]
Load	max. 500 Ω	max. 500 Ω	–

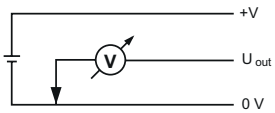
Approvals

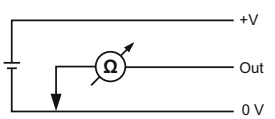
CE compliant in accordance with
EMC Directive 2014/30/EU
RoHS Directive 2011/65/EU

UKCA compliant in accordance with
EMC Regulations S.I. 2016/1091
RoHS Regulations S.I. 2012/3032

Terminal assignment

			R/I converter				
Analog sensor **A11** (4 ... 20 mA)		Signal:	+V	I_{out}	n.c.	n.c.	
	Cable	Core color:	BN	WH	GN		
	M12 connector, 4-pin	Pin:	1	2	3	4	

			R/U converter				
Analog sensor **A22** (0 ... 10 V DC)		Signal:	+V	0 V	U_{out}	n.c.	
	Cable	Core color:	BN	WH	GN		
	M12 connector, 4-pin	Pin:	1	2	3	4	

			Potentiometer				
Analog sensor **A33** (Potentiometer 10 kΩ)		Signal:	+V	0 V	Out	n.c.	
	Cable	Core color:	BN	WH	GN		
	M12 connector, 4-pin	Pin:	1	2	3	4	

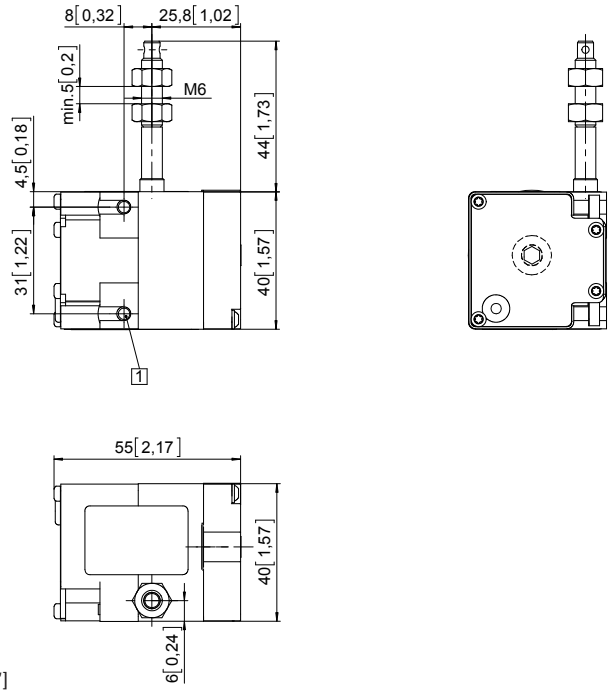
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Dimensions

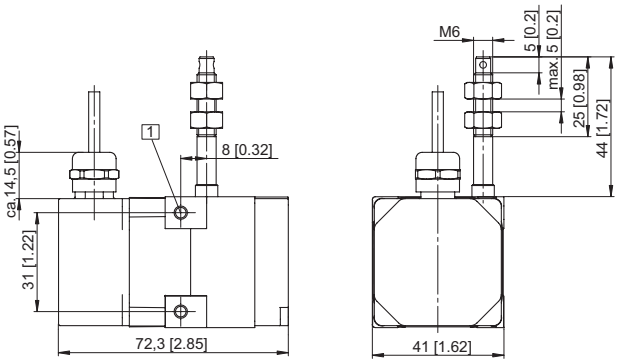
Dimensions in mm [inch]

for measuring range 1000 mm

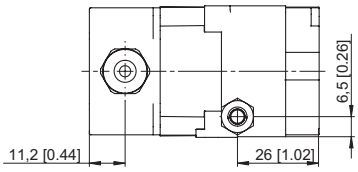


1 2 x M4, max. screw-in depth 8 mm [0.32“]

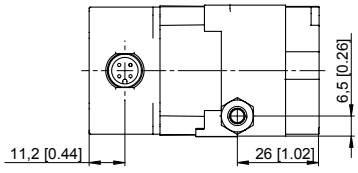
for measuring range 2000 mm



cable connection



M12 connector



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