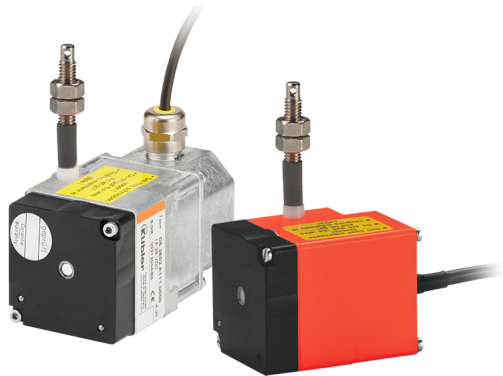


Linear measuring technology

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.



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 **D5.350X.AXX.X.0000**
draw-wire encoder 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.

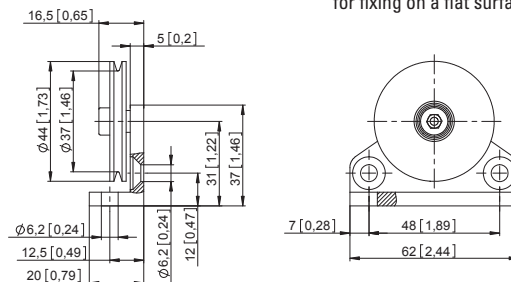
Guide pulley



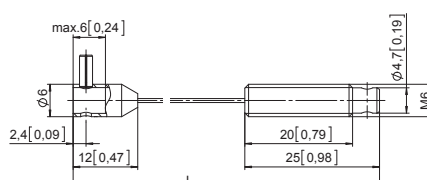
Technical data:
 - mounting bracket (anodized alum.)
 - guide pulley (plastic POM)
 - ball bearing (type 696-2R5)

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']
 Steel wire 5 m [16.40']
 Steel wire 10 m [32.81']
 Paraleine 2 m [6.56']

8.0000.7000.0033
8.0000.7000.0034
8.0000.7000.0035
8.0000.7000.0032

Linear measuring technology

Draw-wire encoder A40 / A41	Compact-Line	Measuring length A40 max. 1 m Measuring length A41 max. 2 m
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Connection technology		Order no.
Cordset, pre-assembled	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-assembly	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)	005.BS8141-0
	M12 female connector with coupling nut, 4-pin, A coded, right-angle (plastic)	05.B8241-0

Additional connectors can be found in the connection technology section or in the connection technology area of our website at: www.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/s ²	43.1 m/s ²
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 \varnothing 0.45 mm plastic-coated

Electrical characteristics			
Analog output	0 ... 10 V	4 ... 20 mA	potentiometer 10 k Ω
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	–
CE compliant acc. to	EMC guideline 2014/30/EU RoHS guideline 2011/65/EU		

Terminal assignment

Analog sensor A11 (4 ... 20 mA)			R/I converter				
		Signal:	+V	I _{out}	n.c.	n.c.	
	Cable	Core color:	BN	WH	GN		
	M12 connector, 4-pin	Pin:	1	2	3	4	
Analog sensor A22 (0 ... 10 V DC)			R/U converter				
		Signal:	+V	0 V	U _{out}	n.c.	
	Cable	Core color:	BN	WH	GN		
	M12 connector, 4-pin	Pin:	1	2	3	4	
Analog sensor A33 (Potentiometer 10 k Ω)			Potentiometer				
		Signal:	+V	0 V	Out	n.c.	
	Cable	Core color:	BN	WH	GN		
	M12 connector, 4-pin	Pin:	1	2	3	4	

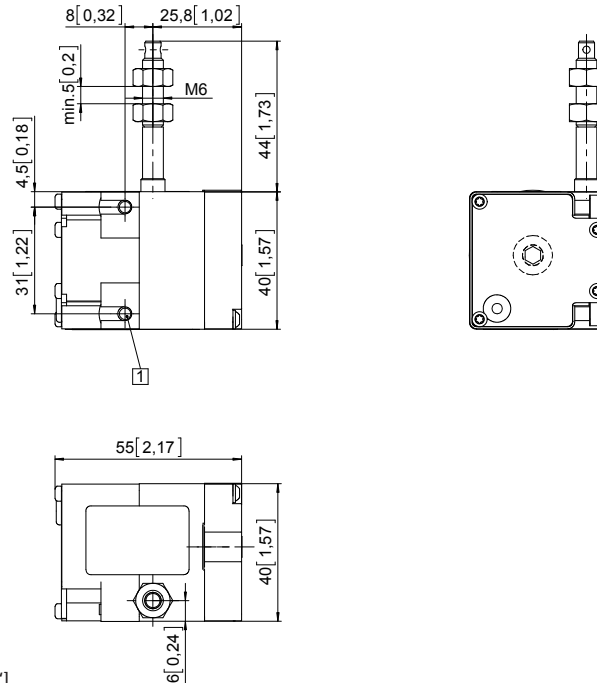
Linear measuring technology

Draw-wire encoder A40 / A41	Compact-Line	Measuring length A40 max. 1 m Measuring length A41 max. 2 m
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Dimensions

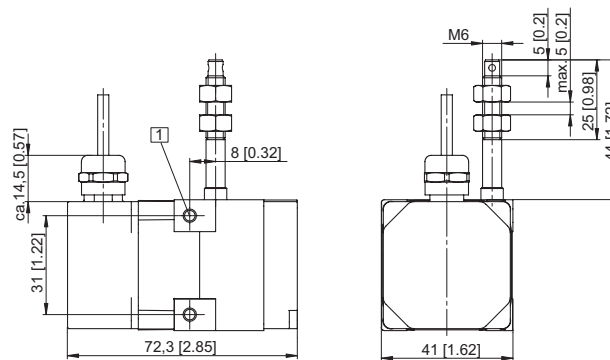
Dimensions in mm [inch]

for measuring range 1000 mm

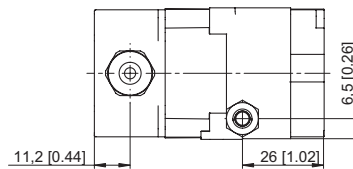


1 2 x M4, max. screw-in depth 8 mm [0.32"]

for measuring range 2000 mm



cable connection



M12 connector

