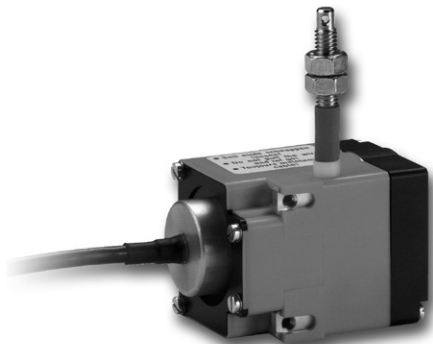


# Linear measuring technology

<b>Draw-wire mechanics with incremental encoder</b>	<b>Draw-wire encoder A40</b>	<b>Measuring length max. 2 m Traverse speed max. 0.8 m/s</b>
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The draw-wire system A40 with incremental encoder excels with its compact construction.



**Compact and simple**

- Measuring length up to 2000 mm.
- For applications with low traverse speeds.
- Easy mounting.

<b>Order code</b> draw-wire encoder	<b>D5.2</b> Type	<b>XXX</b> a	<b>. 24</b>	<b>XX</b> b	<b>. 1000</b>		
<b>a</b> Steel wire, length 501 = 1000 mm 102 = 2000 mm				<b>b</b> Output circuit / power supply 21 = Push-pull with inverted signal / 5 ... 24 V DC 41 = Push-pull with inverted signal / 8 ... 30 V DC		<i>Stock types</i> D5.2102.2421.1000 D5.2102.2441.1000	D5.2501.2421.1000 D5.2501.2441.1000

Accessories for draw-wire encoder	Dimensions in mm [inch]	Order no.
<p><b>Guide pulley</b></p>	<p>Technical data:</p> <ul style="list-style-type: none"> <li>- mounting bracket (anodized alum.)</li> <li>- guide pulley (plastic POM)</li> <li>- ball bearing (type 696-2R5)</li> </ul> <p>Scope of delivery:</p> <ul style="list-style-type: none"> <li>- 2 x countersunk screws for lateral fixing</li> <li>- 2 x hexagonal screws for fixing on a flat surface</li> </ul>	<b>8.0000.7000.0045</b>
<p><b>Extension cable</b></p>	<p>Steel wire 2 m [6.56']</p> <p>Steel wire 5 m [16.40']</p> <p>Steel wire 10 m [32.81']</p> <p>Paraleine 2 m [6.56']</p>	<p><b>8.0000.7000.0033</b></p> <p><b>8.0000.7000.0034</b></p> <p><b>8.0000.7000.0035</b></p> <p><b>8.0000.7000.0032</b></p>

# Linear measuring technology

**Draw-wire mechanics  
with incremental encoder**

**Draw-wire encoder A40**

**Measuring length max. 2 m  
Traverse speed max. 0.8 m/s**

## Technical data

### Mechanical characteristics (draw-wire mechanics)

<b>Measuring range</b>	up to 2000 mm
<b>Absolute accuracy</b>	±0.1 % for the whole measuring range
<b>Repetition accuracy</b>	±0.15 mm per direction of travel
<b>Resolution (incremental)</b>	0.1 mm standard encoder with 1000 ppr
<b>Traversing speed</b>	max. 800 mm/s
<b>Required force</b>	approx. 10 N (on wire)
<b>Material</b>	housing reinforced plastic wire stainless steel ø 0.45 mm
<b>Weight</b>	approx. 210 g [7.41 oz]

### Electrical characteristics (encoder)

<b>Output circuits</b>	Push-pull	Push-pull
<b>Power supply</b>	5 ... 24 V DC	8 ... 30 V DC
<b>Current consumption (no load)</b>	max. 50 mA	max. 50 mA
<b>Permissible load / channel</b>	max. +/- 50 mA	max. +/- 50 mA
<b>Pulse rate</b>	max. 160 kHz	max. 160 kHz
<b>Switching level</b>	HIGH LOW	min. +V - 2.5 V min. +V - 3.0 V max. 2.5 V
<b>Rising edge time <math>t_r</math></b>	max. 1 µs	max. 1 µs
<b>Falling edge time <math>t_f</math></b>	max. 1 µs	max. 1 µs
<b>Short-circuit protected outputs</b>	yes	yes
<b>CE compliant acc. to</b>	EMC guideline 2014/30/EU RoHS guideline 2011/65/EU	

### Mechanical characteristics (encoder)

<b>Protection acc. to EN 60529</b>	IP54
<b>Working temperature</b>	-20°C ... +85°C [-4°F ... +185°F]
<b>Shock resistance acc. to EN 60068-2-27</b>	1000 m/s <sup>2</sup> , 6 ms
<b>Vibration resistance acc. to EN 60068-2-6</b>	100 m/s <sup>2</sup> , 55 ... 2000 Hz

### Description of the incremental encoder (connected on load side)

- Compensation for temperature and ageing
- Short-circuit protected outputs
- Reverse polarity protected power supply input
- Push-pull output

## Terminal assignment of the encoder

Signal	0 V	+V	A	$\bar{A}$	B	$\bar{B}$	0	$\bar{0}$
Core color	WH	BN	GN	YE	GY	PK	BU	RD

Isolate unused outputs before initial start-up.

## Dimensions

Dimensions in mm [inch]

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

