

Special Encoder & Sensors

Encoder assemblies with cable-pull

Incremental & absolute – cable pulls up to 50 m measuring length



Encoder with cable-pull

Features

- Absolute and incremental encoders with cable-pulls
- Measuring length up to 50 m
- High linearity of typical $\pm 0.02\%$ of the measuring range
- Complete assemblies of encoder and cable-pull
- Cable made of highly flexible stainless steel cores

Technical data - cable-pull

Materials	Housing: Aluminium Cable: Stainless steel, polyamide-coated
Temperature range	-20...+80 °C
Protection per IEC60529	IP 50 (cable-pull)
Service life approx.	3000 mm: 5 million strokes 5000 mm - 50000 mm: 1 million strokes

Length	Weight	Distance/rev.	Cable acceleration	Pull-out force	Pull-in force	Cable \varnothing	Linearity
3000 mm	1.1 kg	260.09 mm	Max. 70 m/s ²	Max. 10 N	Min. 5.5 N	0.8 mm	$\pm 0.02\%$
5000 mm	1.4 kg	315.07 mm	Max. 50 m/s ²	Max. 16 N	Min. 4 N	1.0 mm	$\pm 0.01-0.02\%$
7500 mm	1.7 kg	315.07 mm	Max. 60 m/s ²	Max. 21 N	Min. 8.5 N	1.0 mm	$\pm 0.01-0.02\%$
10000 mm	2.5 kg	315.07 mm	Max. 30 m/s ²	Max. 21 N	Min. 5.5 N	1.0 mm	$\pm 0.01-0.02\%$
15000 mm	2.7 kg	315.07 mm	Max. 30 m/s ²	Max. 25 N	Min. 5 N	1.0 mm	$\pm 0.01-0.02\%$
30000 mm	9.5 kg	500.00 mm	Max. 20 m/s ²	Max. 22 N	Min. 12 N	0.8 mm	$\pm 0.01\%$
40000 mm	10.5 kg	500.00 mm	Max. 20 m/s ²	Max. 22 N	Min. 11 N	0.8 mm	$\pm 0.01\%$
50000 mm	11 kg	500,00 mm	Max. 20 m/s ²	Max. 24 N	Min. 11 N	0.8 mm	$\pm 0.01\%$

Encoders with cable-pulls <3000 mm length upon request.

Technical encoder data: See encoder product sheet.

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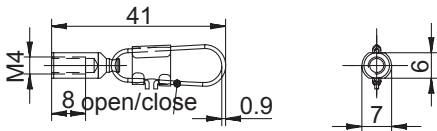
Ordering part number

The respective ordering part number of encoder with cable-pull assembly is defined after receipt of order.

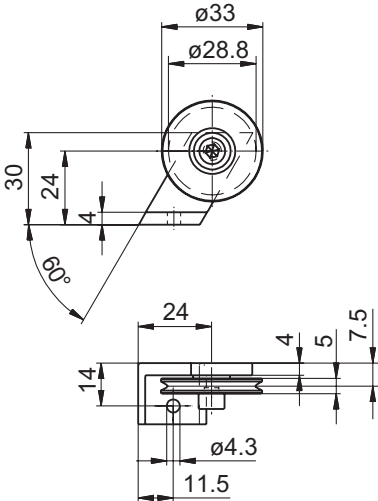
Example: GM401.E26 = encoder GM401.120A102 (SSI, gray code, 12x12 bit, 10...30 VDC) with cable-pull assembly, 15000 mm cable length.

Accessories

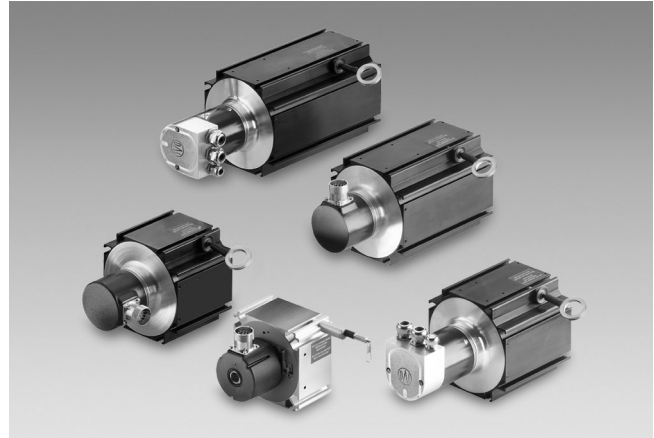
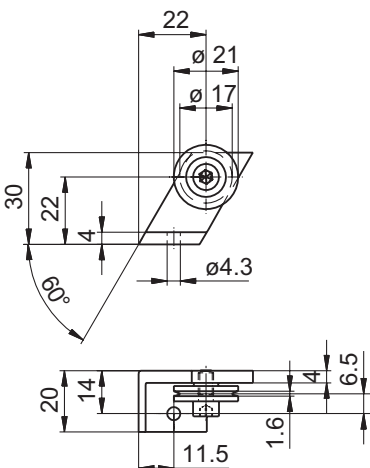
Z 119.060 Snap hook for cable-pulls of 3000 mm length



Z 119.065 Idler for cable thickness 0.8...1 mm



Z 119.067 Idler for cable thickness max. 0.5 mm



The appropriate encoder for system solutions

All current encoder designs with 58 mm housing offered in our wide range on absolute and incremental encoders are compatible to the cable-pull of your choice.

Incremental encoders

- Impulse numbers up to 80.000
- Rotation speeds up to 10.000 rpm
- Supply voltage 5 VDC or 4.75...30 VDC
- Capable of extreme temperatures -20...+100 °C

Absolute encoders

- Single or multiturn
- Resolution up to 36 bit
- Rotation speeds up to 10.000 rpm
- Extremely high mechanical immunity against shock 2000 m/s², vibrations 100 m/s²
- Capable of extreme temperatures -20...+85 °C
- Programmable

These absolute encoders can be varied with all current fieldbus interfaces:



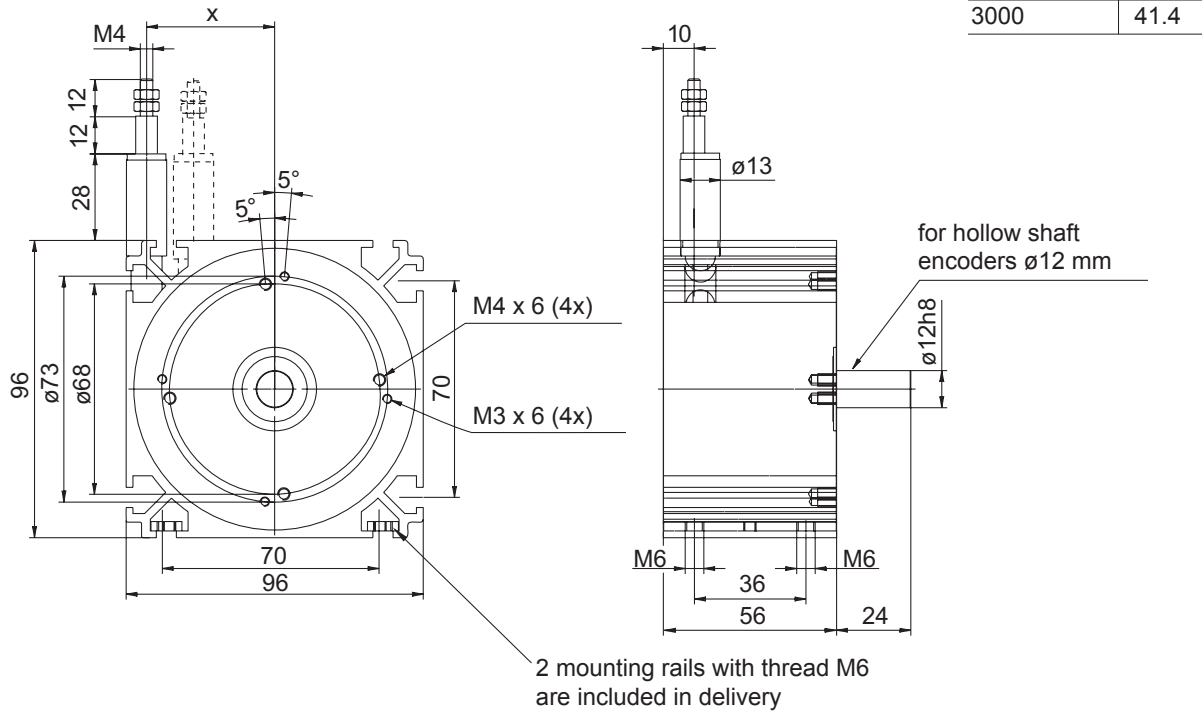
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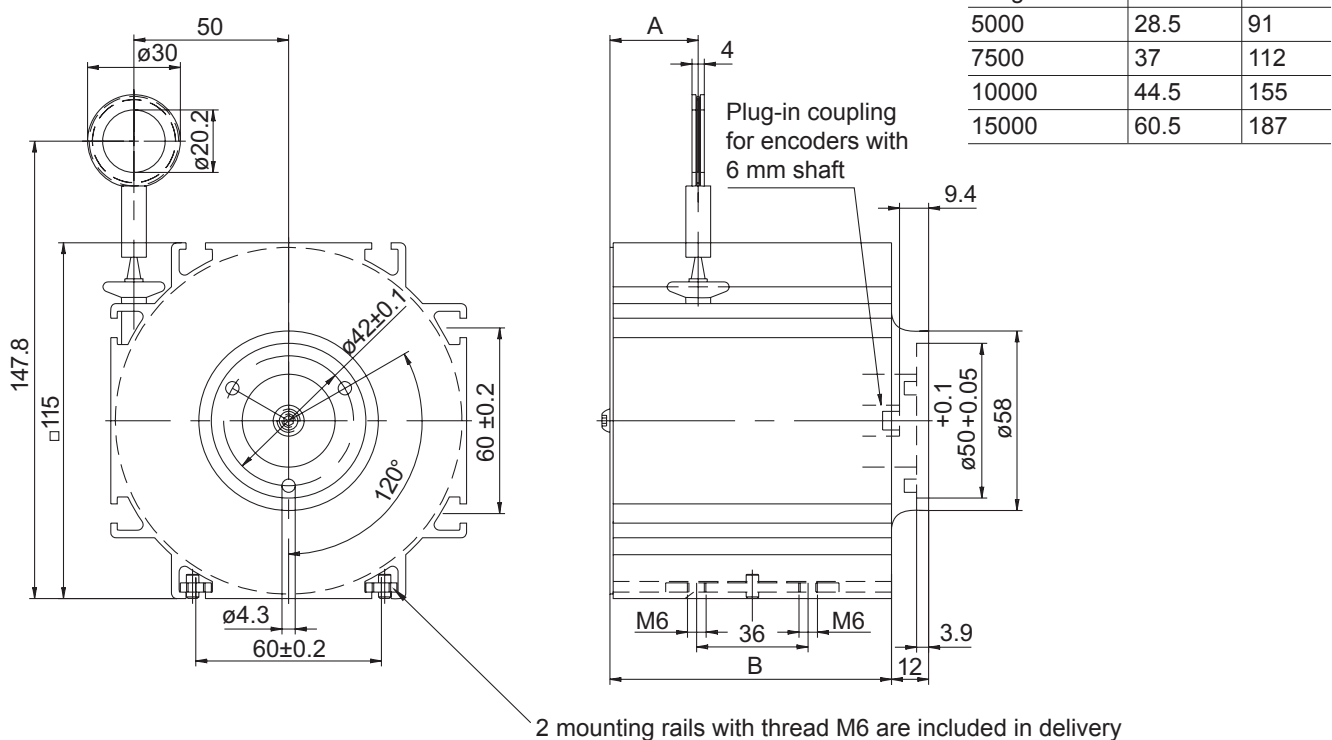
Dimensions

Measuring length 3000 mm



Dimensions

Measuring length 5000, 7500, 10000 or 15000 mm



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Dimensions

Measuring length 30000, 40000 and 50000 mm

Length	A	B
30000	75	268
40000	95	300
50000	95	333.5

