

Cable transducer

Cable-pull with absolute or incremental encoder

Up to 50 m measuring length



Cable transducer GCA15

Features

- Ready-to-use mounted combination of cable mechanism and encoder
- Measuring length 2.4...50 m
- Broad selection of absolute and incremental standard encoders
- High linearity up to $\pm 0.01\%$ of the measuring range
- Cable made of highly flexible stainless steel cores
- High service life up to 5 million strokes

Technical data - cable-pull

Materials	Housing: Aluminium, plastic PBT GF 20 (GCI2 / GCA2) Cable: Stainless steel, polyamide-coated
Operating temperature	-20...+80 °C
Protection per IEC60529	IP 50 (cable-pull)
Cable mounting	2.4 m: with snap hook 3...5 m: with thread or eyelet 5...50 m: with eyelet
Service life	2.4 m: approx. 1 million strokes 3 m: approx. 5 million strokes 5...50 m: approx. 1 million strokes
Linearity	0...2.4 m: $\pm 0.05\%$ ($\pm 0.01\%$ on request) 3...7.5 m: $\pm 0.02\%$ 10...50 m: $\pm 0.01\%$
Product family	GCI: Cable transducer with incremental encoder GCA: Cable transducer with absolute encoder

Product family	Cable length	Weight	Distance/rev.	Cable acceleration	Pull-out force	Pull-in force	Cable- \varnothing
GCI2 / GCA2	2.4 m	0.2 kg	150.75 mm	Max. 5 m/s ²	Max. 7 N	Min. 1 N	0.45 mm
GCI4 / GCA4	3 m	1.1 kg	260.09 mm	Max. 70 m/s ²	Max. 11 N	Min. 3 N	0.8 mm
GCI15 / GCA15	5 m	1.4 kg	315.07 mm	Max. 50 m/s ²	Max. 16 N	Min. 4 N	1.0 mm
GCI15 / GCA15	7.5 m	1.7 kg	315.07 mm	Max. 60 m/s ²	Max. 24 N	Min. 8 N	1.0 mm
GCI15 / GCA15	10 m	2.5 kg	315.07 mm	Max. 30 m/s ²	Max. 21 N	Min. 8 N	1.0 mm
GCI15 / GCA15	15 m	2.7 kg	315.07 mm	Max. 30 m/s ²	Max. 25 N	Min. 8 N	1.0 mm
GCI50 / GCA50	30 m	9.5 kg	500.00 mm	Max. 20 m/s ²	Max. 22 N	Min. 12 N	0.8 mm
GCI50 / GCA50	40 m	10.5 kg	500.00 mm	Max. 20 m/s ²	Max. 22 N	Min. 11 N	0.8 mm
GCI50 / GCA50	50 m	11 kg	500.00 mm	Max. 20 m/s ²	Max. 24 N	Min. 11 N	0.8 mm

Technical encoder data: See encoder product sheet.

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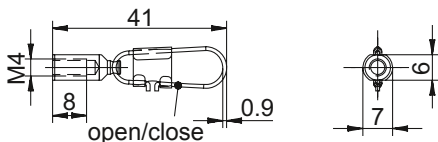
Ordering part number

The respective ordering part number is defined after receipt of order (combination of encoder and cable-pull).

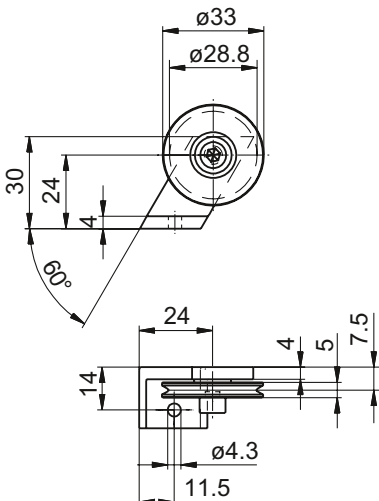
Example: GCA15-GM401.E26 = cable-pull with 15 m cable length combined with absolute encoder GM401.120A102 (SSI, gray code, 12x12 bit, 10...30 VDC).

Accessories

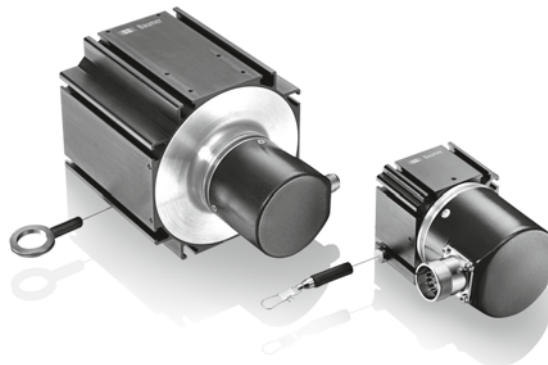
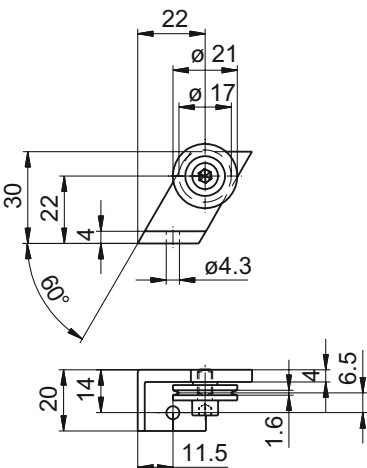
Z 119.060 Snap hook for cable-pulls of 3 m length



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 (GCI)

- Impulse numbers up to 80.000 pulses/turn
- Rotation speeds up to 10.000 rpm
- Supply voltage 5 VDC or 4.75...30 VDC
- Capable of temperatures -20...+100 °C
- Interfaces: HTL/TTL

Absolute encoders (GCA)

- Resolution max. 36 bit
- Rotation speeds up to 10.000 rpm
- Extremely high mechanical immunity
- Capable of temperatures -20...+85 °C
- Programmable (e.g.: rotation direction)

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



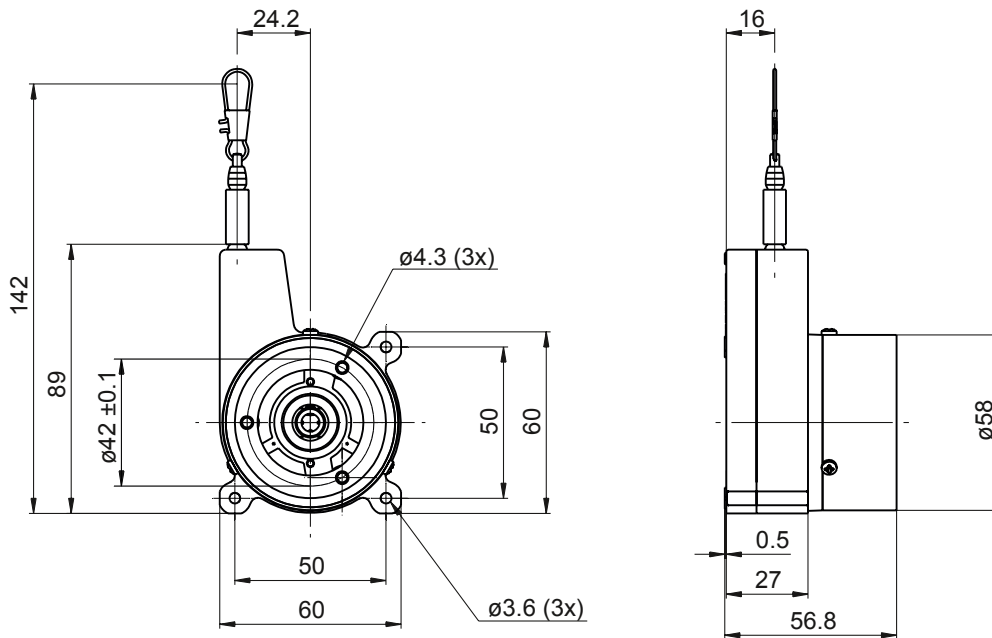
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Dimensions

GCI2/GCA2 – without encoder, measuring length 2.4 m – with snap hook



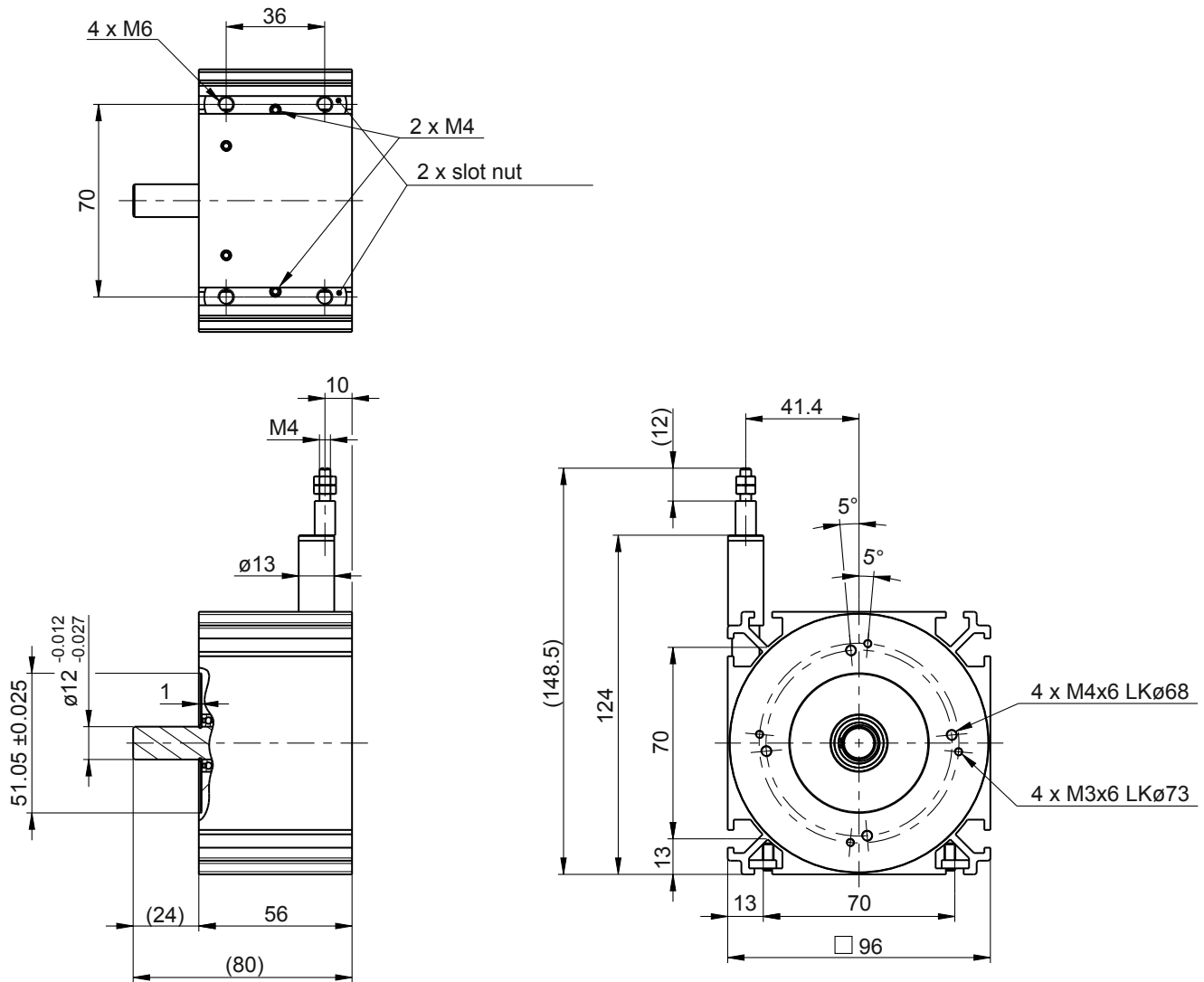
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Dimensions

GCI4/GCA4 – without encoder, measuring length 3 m – with thread



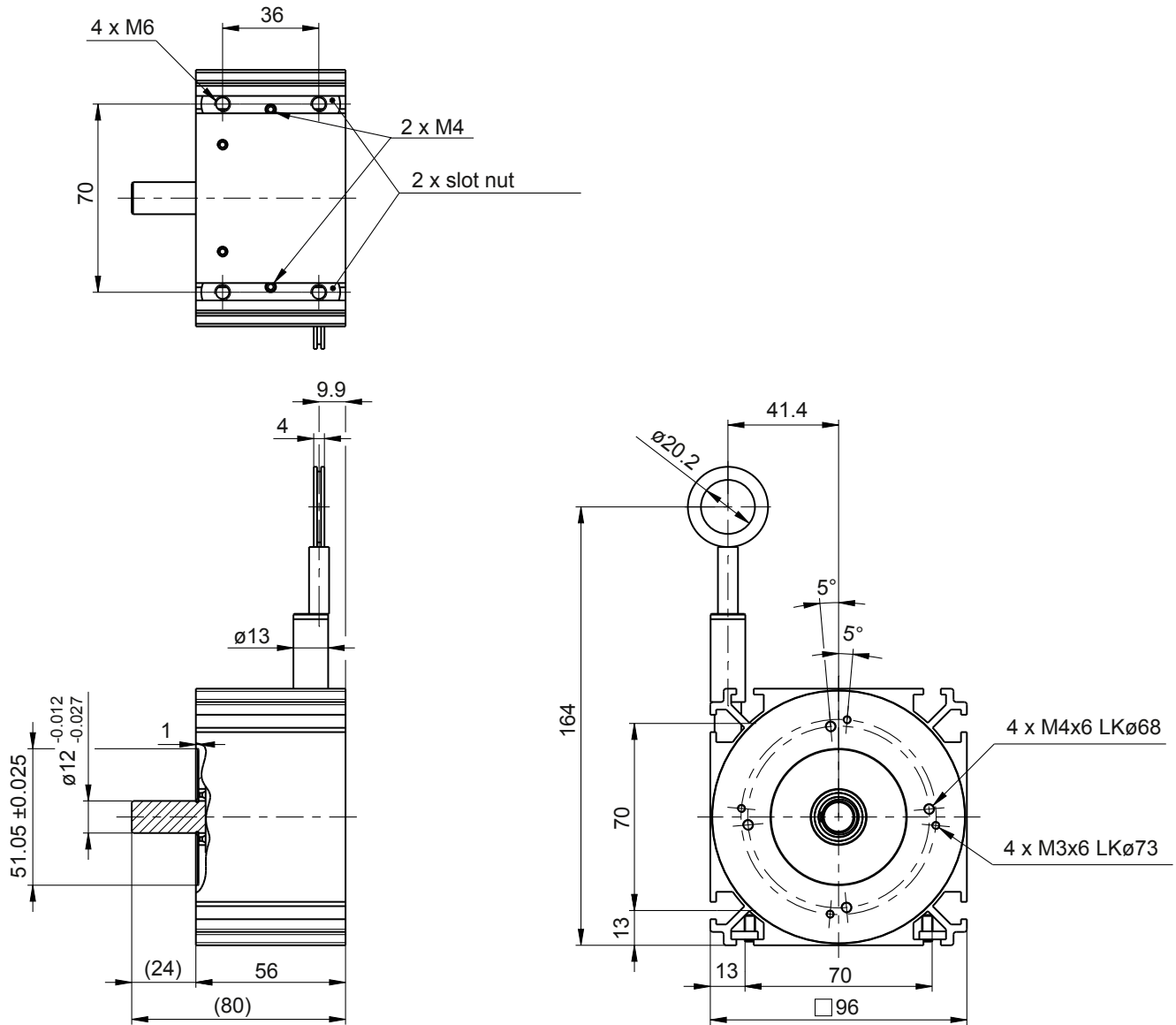
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Dimensions

GC14/GCA4 – without encoder, measuring length 3 m – with eyelet



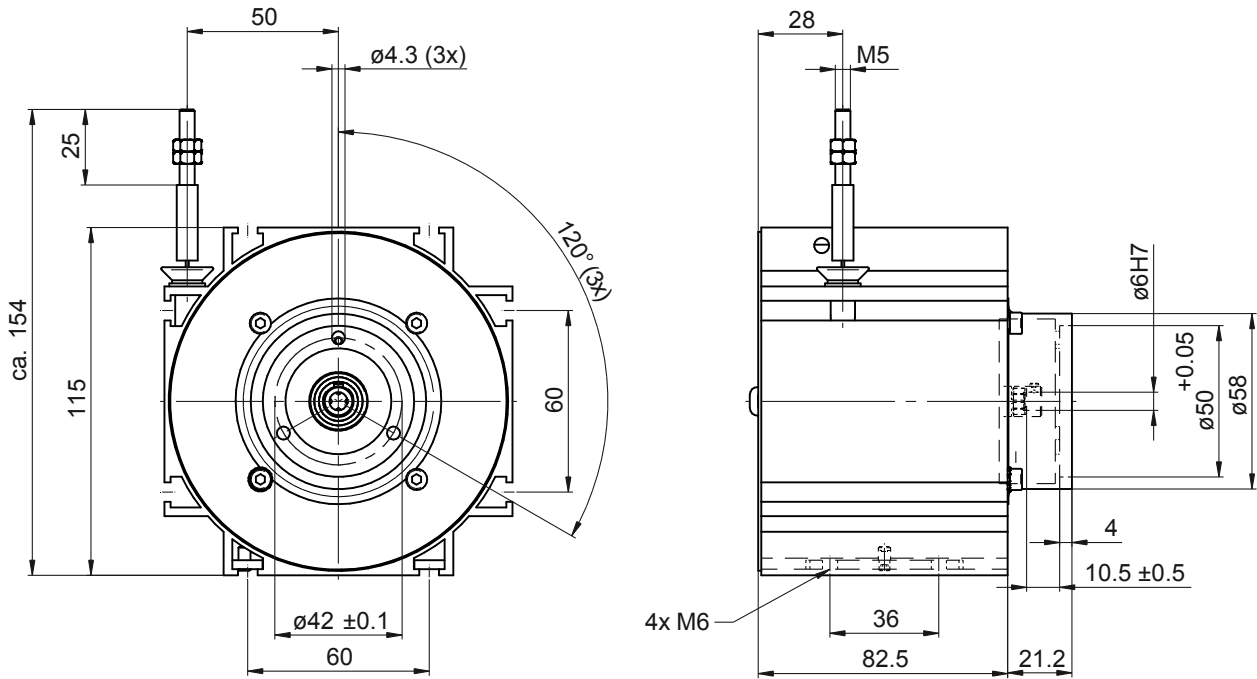
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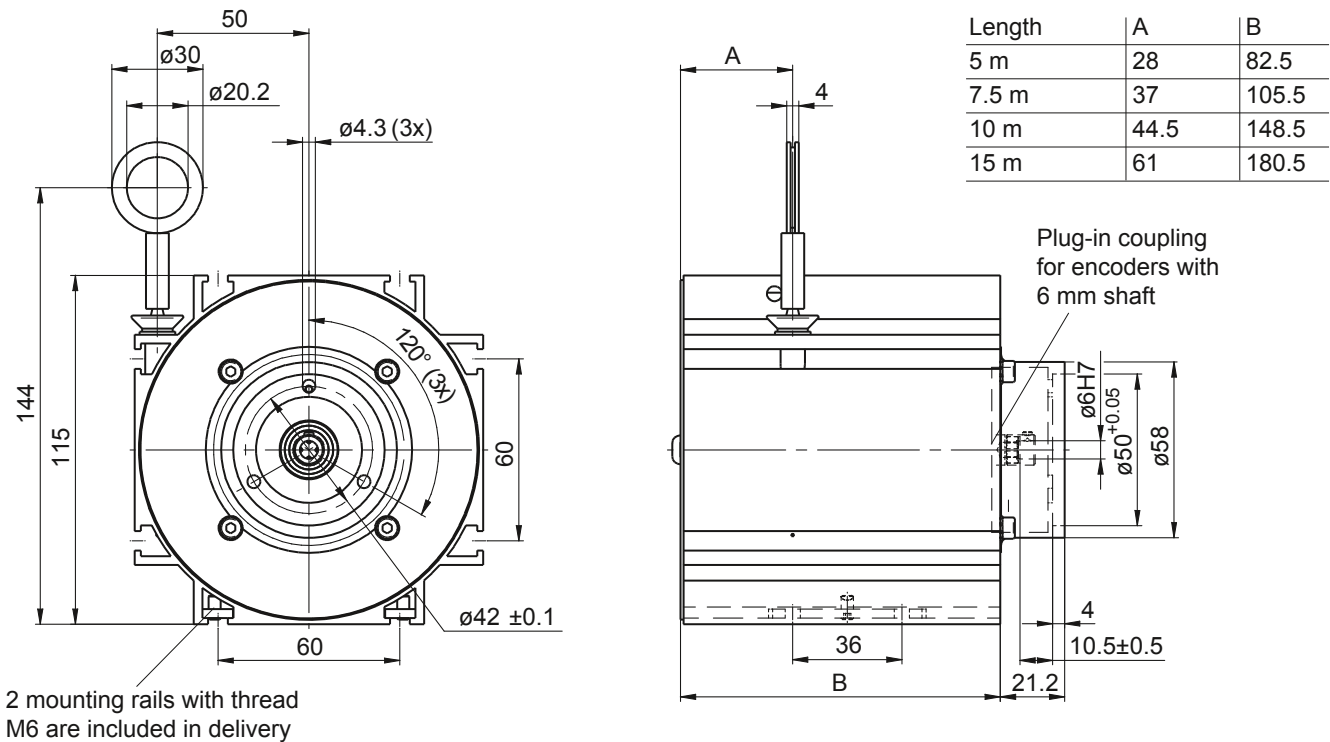
Up to 50 m measuring length

Dimensions

GCI15/GCA15 – without encoder, measuring length 5 m – with thread



GCI15/GCA15 – without encoder, measuring length 5, 7.5, 10 or 15 m – with eyelet



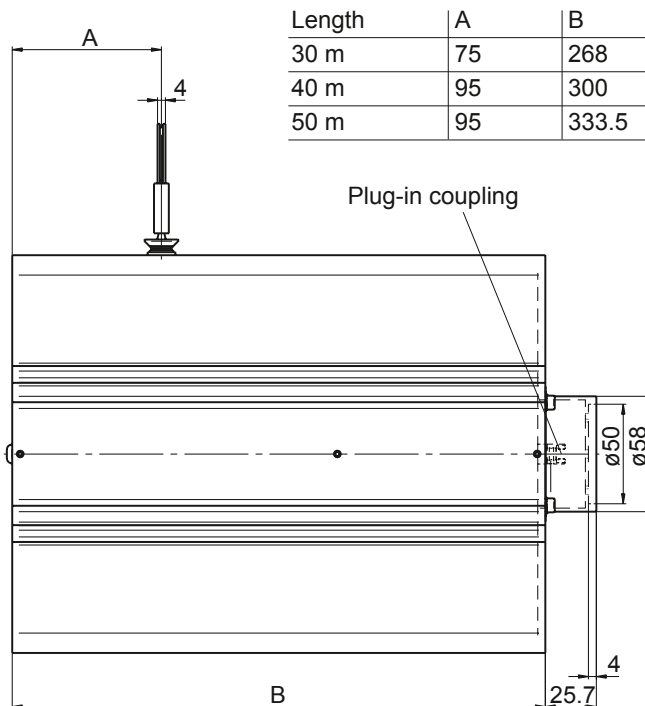
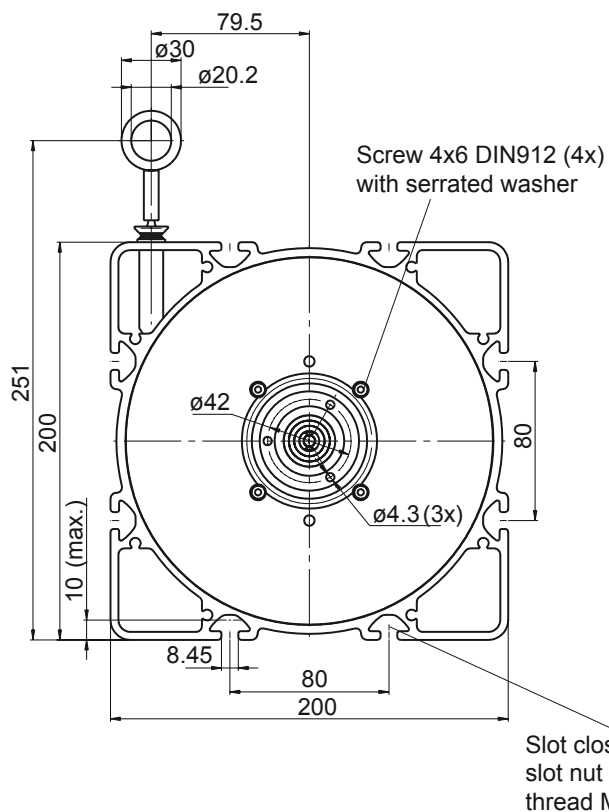
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Dimensions

GCI50/GCA50 – without encoder, measuring length 30, 40 or 50 m – with eyelet



Length	A	B
30 m	75	268
40 m	95	300
50 m	95	333.5