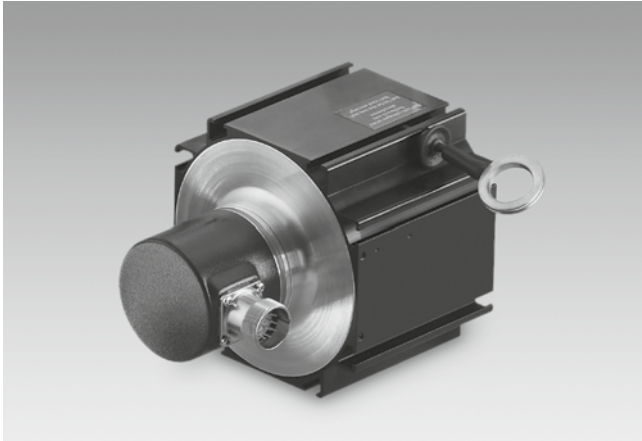# Cable transducer

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...50 m**

– **Broad selection of absolute and incremental standard encoders**

– **High linearity up to ±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 2 m: with thread 3...5 m: with thread or eyelet 5...50 m: with eyelet
Linearity	0...2.4 m: ±0.05 % (±0.01 % on request) 2 m: ±0.02 % 3...7.5 m: ±0.02 % 10...50 m: ±0.01 %
Product family	GCI: Cable transducer with incremental encoder GCA: Cable transducer with absolute encoder

Product family	Cable length	Weigth	Distance/rev.	Cable acceleration	Pull-out force	Pull-in force	Cable-ø
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	2 m	0.9 kg	164.00 mm	Max. 80 m/s^2	Max. 11 N	Min. 3 N	0.8 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.

Cable transducer
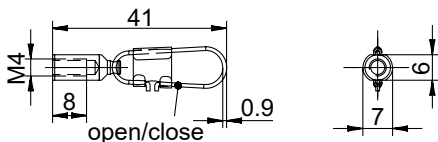## Cable-pull with absolute or incremental encoder
Up to 50 m measuring length

Ordering part number

The respective ordering part number is defined after receipt of order (combination of encoder and cable-pull).
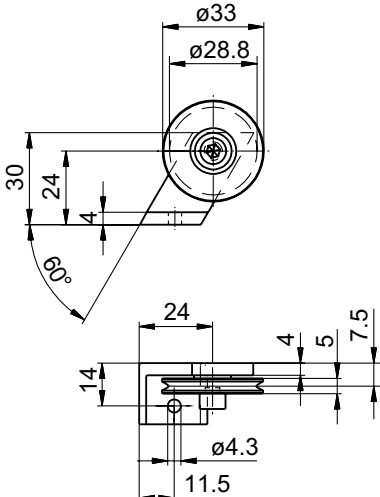
Example: GCA15-GM401.E26 = cable-pull with 15 m cable length combined with absolute encoder GM401.120A102 (SSI, gray code, 12x12 bit, 10...30 VDC).
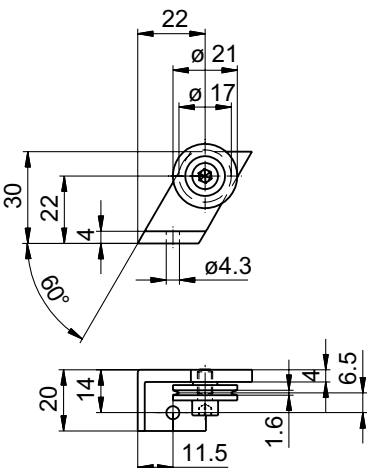
Accessories

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.
GCA2/GCA15/GCA50: for encoders with synchro flange
GCA4: for encoders with blind or through hollow shaft
Please observe the quick guide for mounting the encoder.

Incremental encoders (GCI)
– Impulse numbers up to 65.536 pulses/turn
– Interfaces: HTL/TTL

Absolute encoders (GCA)
– Resolution max. 31 bit
– Programmable (e.g.: rotation direction)

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

Cable transducer

Cable-pull with absolute or incremental encoder

Up to 50 m measuring length

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

24.2

142

89

ø42 ±0.1

ø4.3 (3x)

50

60

50

60

ø3.6 (3x)

16

ø58

0.5

27

56.8

Cable transducer
Cable-pull with absolute or incremental encoder
Up to 50 m measuring length

GCI4/GCA4 – without encoder, measuring length 2 m – with thread

4x M6

36

70

2x Mounting nut

2x Set screw M4

9.4

M4

ø13

(12)

26

5°

$ø12^{-0.007}_{-0.027}$

1

51.05

(148.5)

124

70

13

4x M3 ⟱ 6 PC ø63
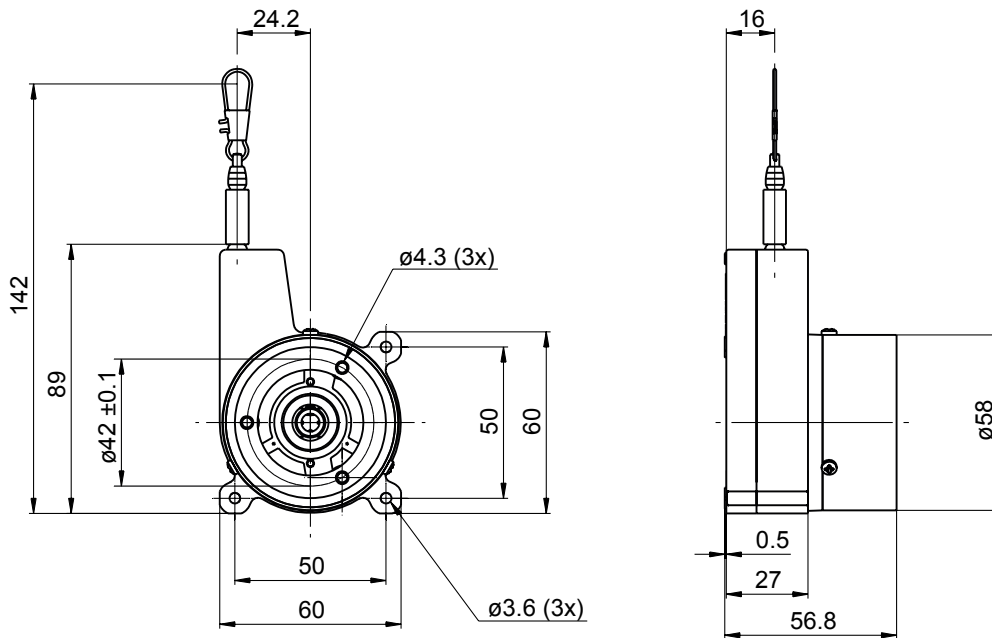
4x M3 ⟱ 6 PC ø73

(23.5)   56

(79.5)

13   70

□ 96

Cable transducer
Cable-pull with absolute or incremental encoder
Up to 50 m measuring length

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

Baumer

www.baumer.com/motion
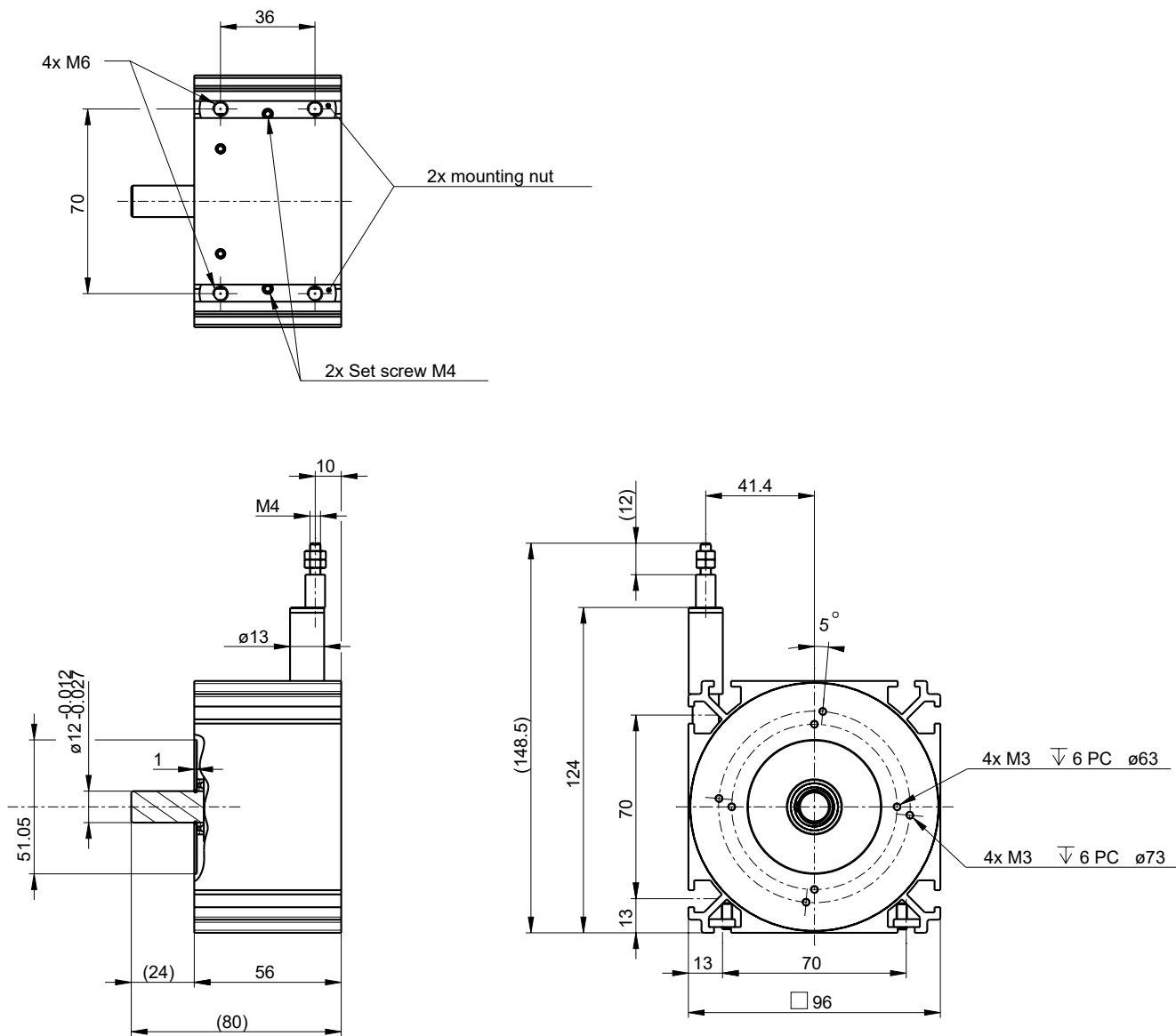
Cable transducer
Cable-pull with absolute or incremental encoder
Up to 50 m measuring length

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

36

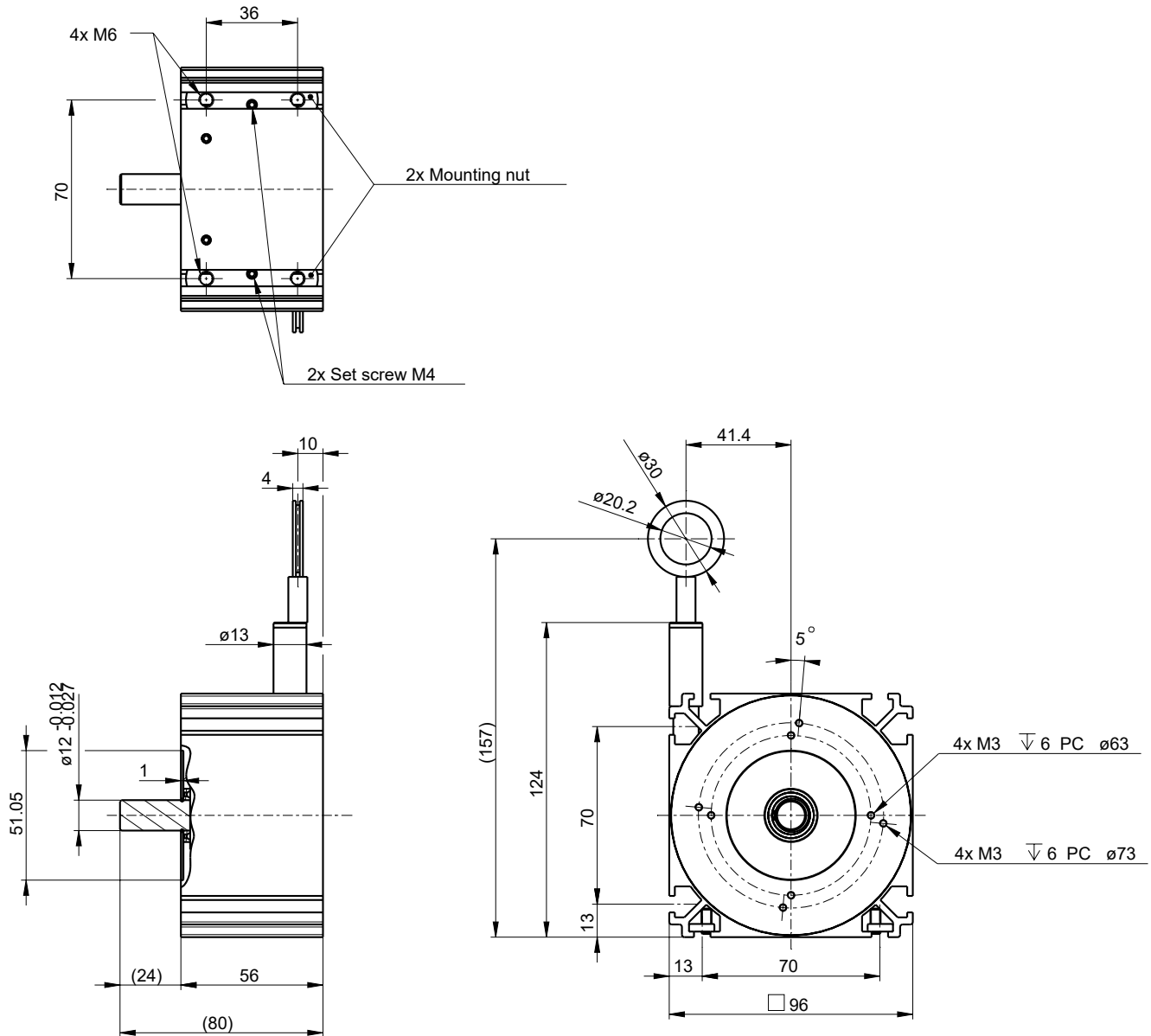4x M6

70

2x Mounting nut

2x Set screw M4

10

4

ø13

ø12 -0.011 / -0.022

51.05

1

(24)

56

(80)

41.4

ø30

ø20.2

5°

(157)

124

70

13

4x M3 ⤵ 6 PC ø63

4x M3 ⤵ 6 PC ø73

13

70

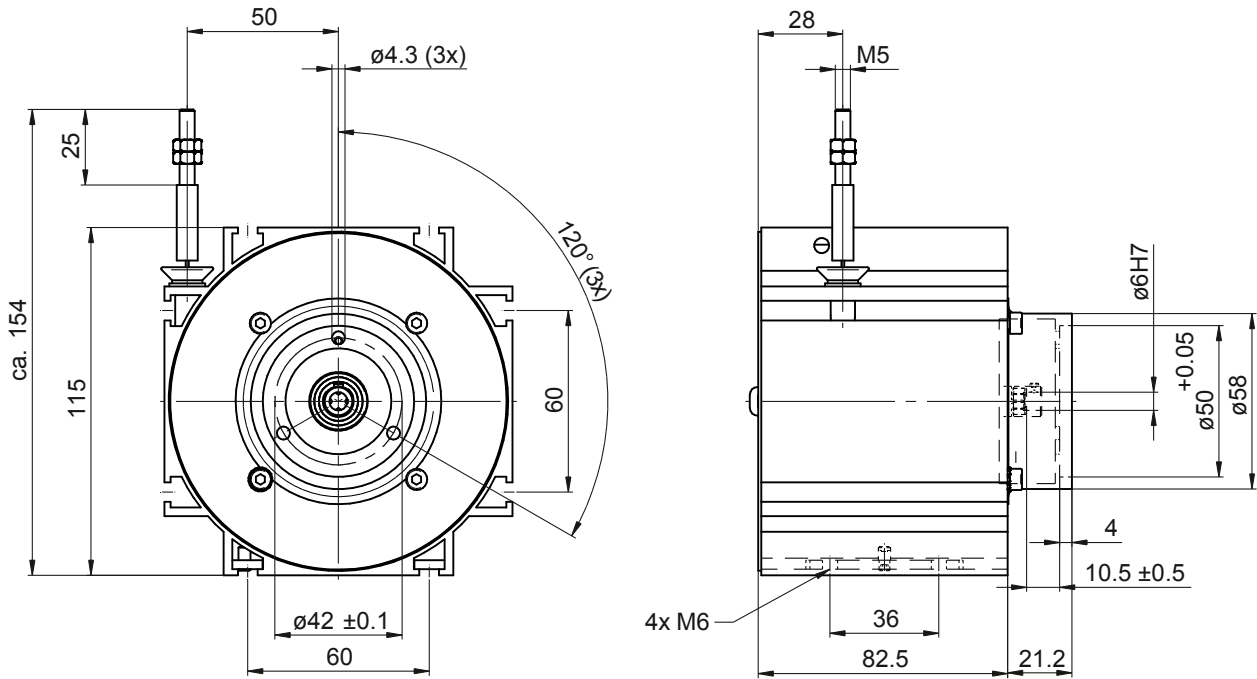☐ 96

www.baumer.com/motion

Baumer

Cable transducer

Cable-pull with absolute or incremental encoder
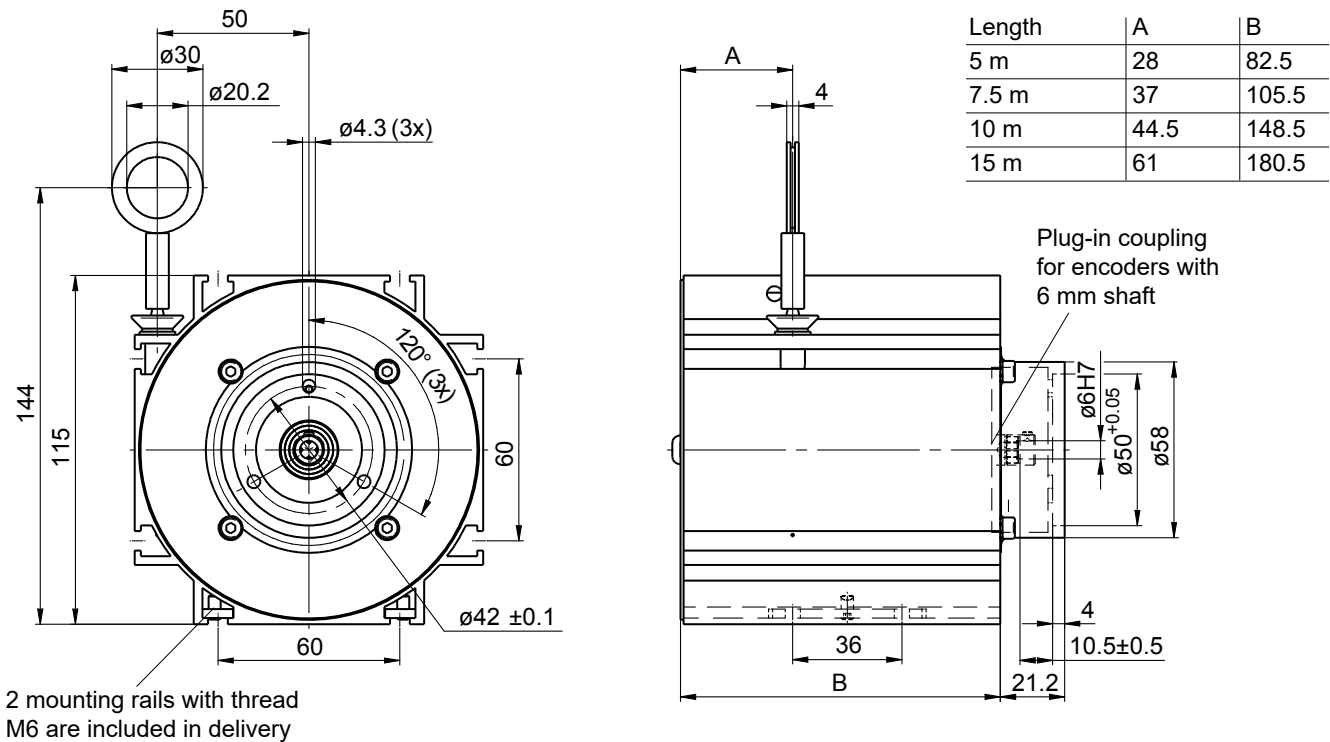
Up to 50 m measuring length

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

Length	A	B
5 m	28	82.5
7.5 m	37	105.5
10 m	44.5	148.5
15 m	61	180.5

Plug-in coupling
for encoders with
6 mm shaft

2 mounting rails with thread
M6 are included in delivery

Cable transducer

Cable-pull with absolute or incremental encoder
Up to 50 m measuring length

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

Screw 4x6 DIN912 (4x) with serrated washer

Plug-in coupling

Slot closers for slot nut with thread M8