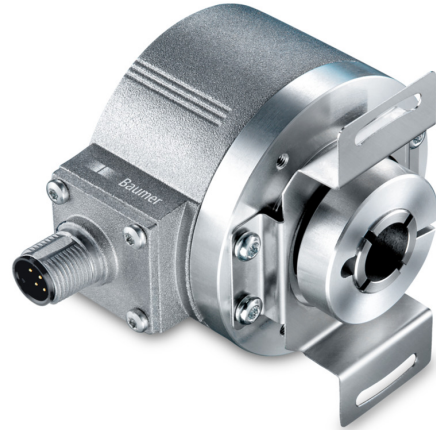


EIL580-B

With blind hollow shaft
100...5000 pulses per revolution

Overview

- Size ø58 mm
- Precise optical sensing
- Output signal level TTL or HTL
- Blind hollow shaft, ø8...15 mm
- Connection axial, radial or tangential
- Pulses per revolution up to 5000
- High protection up to IP 67
- High resistance to shock and vibrations



Technical data

Technical data - electrical ratings

Voltage supply	5 VDC ±5 % 8...30 VDC 4.75...30 VDC
Reverse polarity protection	Yes
Short-circuit proof	Yes (HTL) Yes (TTL, max. 1 s and 1 signal)
Consumption w/o load	≤70 mA
Pulses per revolution	100 ... 5000
Phase shift	90 ° ±10°
Duty cycle	40...60 %
Reference signal	Zero pulse, width 90° ±10 %
Sensing method	Optical
Output frequency	≤300 kHz (TTL) ≤160 kHz (HTL)
Output signals	A+, B+, R+, A-, B-, R-
Output stages	TTL/RS422 HTL/push-pull
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	UL 508 / CSA 22.2

Technical data - mechanical design

Size (flange)	ø58 mm
Shaft type	ø8...15 mm (blind hollow shaft) ø9.52 mm (blind hollow shaft) ø12.7 mm (blind hollow shaft)
Protection EN 60529	IP 65 (without shaft seal) IP 67 (with shaft seal)
Operating speed	≤6000 rpm (+20 °C, IP 67) ≤8000 rpm (+20 °C, IP 65)
Starting torque	≤0.02 Nm (+20 °C, IP 65) ≤0.025 Nm (+20 °C, IP 67)
Material	Housing: aluminium die-cast Flange: aluminium
Operating temperature	-40...+85 °C
Relative humidity	90 % non-condensing
Resistance	EN 60068-2-6 Vibration 30 g, 10-2000 Hz EN 60068-2-27 Shock 250 g, 6 ms
Connection	Flange connector M12, 8-pin Flange connector M23, 12-pin Cable
Weight approx.	300 g

EIL580-B

With blind hollow shaft

100...5000 pulses per revolution

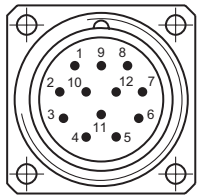
Terminal assignment

Flange connector M23, 12-pin / cable

Pin	Core color	Assignment
1	pink	B-
2	–	–
3	blue	R+
4	red	R-
5	green	A+
6	yellow	A-
7	–	–
8	grey	B+
9	–	–
10	white	GND
11	–	–
12	brown	UB

Screen: Connected to housing

Cable data: PVC, [4x2x0.14 mm²], bending radius >32.5 mm, outer diameter approx. 6.4 mm



Flange connector M23, pin contacts, 12-pin, counterclockwise (CCW)

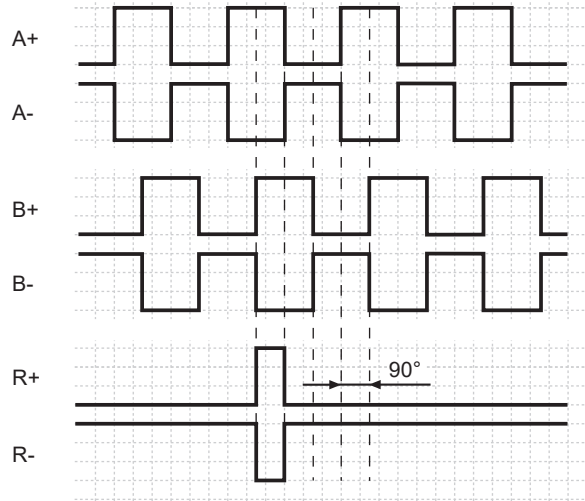
Flange connector M12, 8-pin

Pin	Assignment
1	GND
2	UB
3	A+
4	A-
5	B+
6	B-
7	R+
8	R-



Output signals

Clockwise rotating direction when looking at flange.



Trigger level

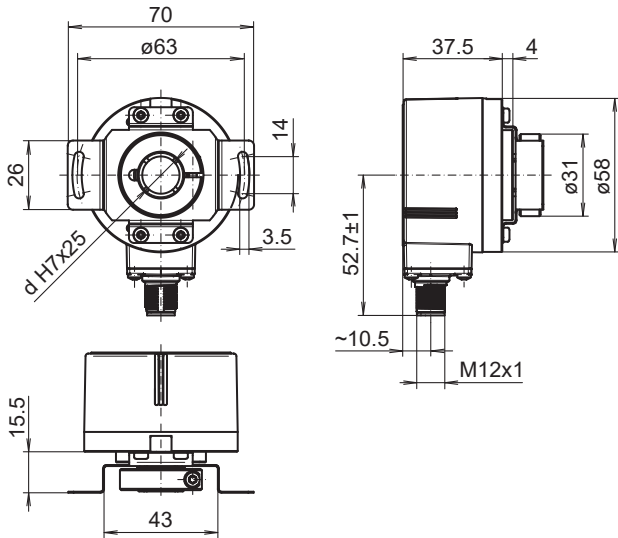
Outputs	TTL/RS422
Output level High	≥2.5 V
Output level Low	≤0.5 V
Load	≤20 mA

Outputs	HTL/Push-pull
Output level High	≥UB -3 V
Output level Low	≤1.5 V
Load	≤20 mA

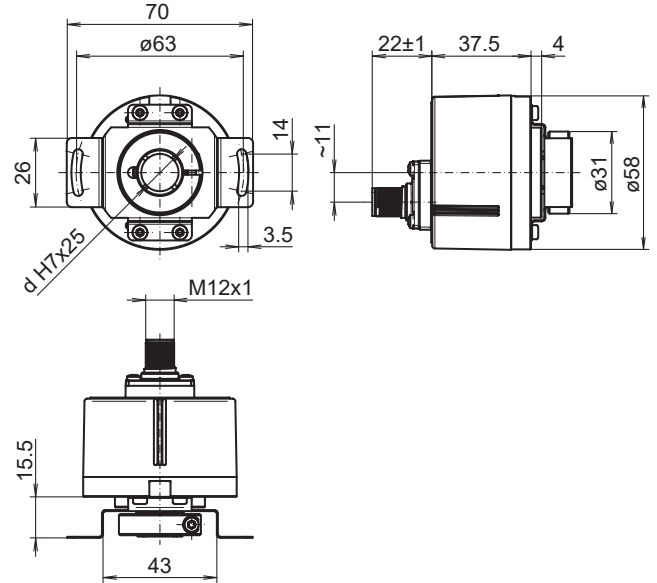
EIL580-B

With blind hollow shaft
100...5000 pulses per revolution

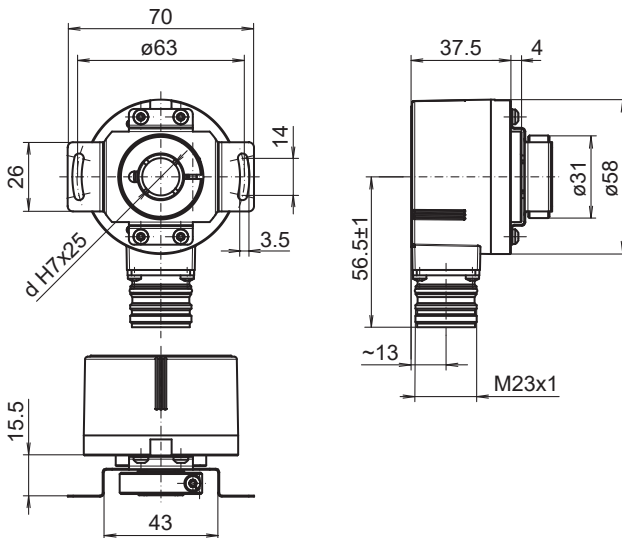
Dimensions



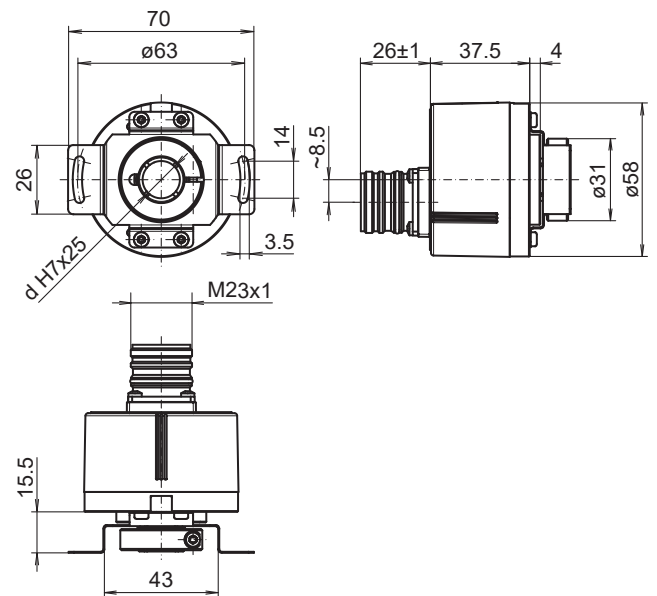
Clamping ring at A-side: Blind hollow shaft, flange connector M12 radial



Clamping ring at A-side: Blind hollow shaft, flange connector M12 axial



Clamping ring at A-side: Blind hollow shaft, flange connector M23 radial



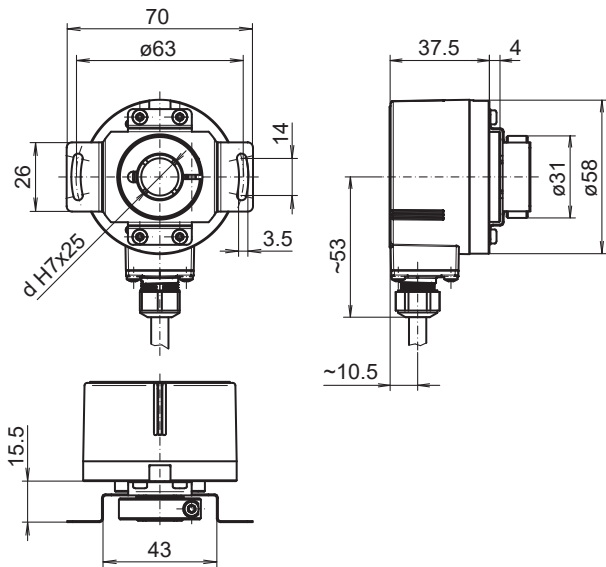
Clamping ring at A-side: Blind hollow shaft, flange connector M23 axial

EIL580-B

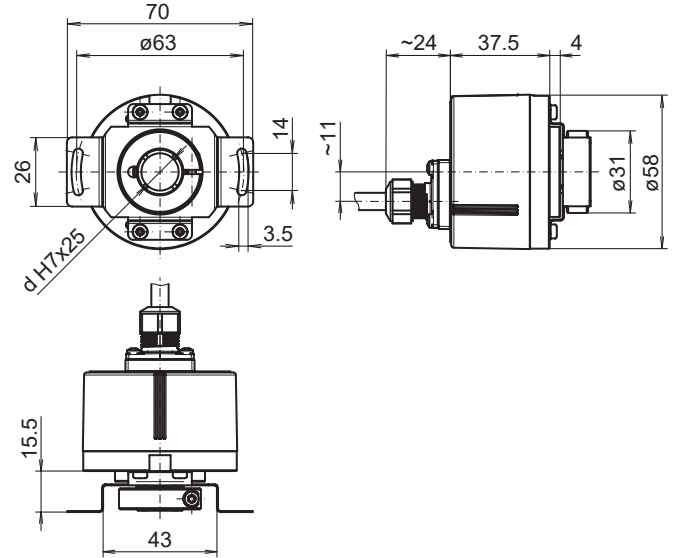
With blind hollow shaft

100...5000 pulses per revolution

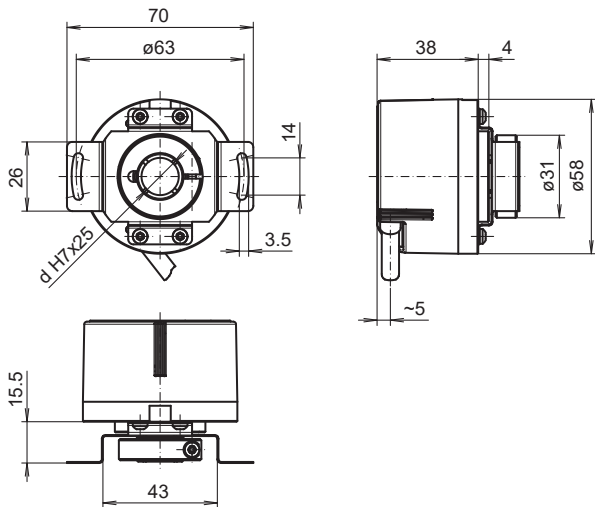
Dimensions



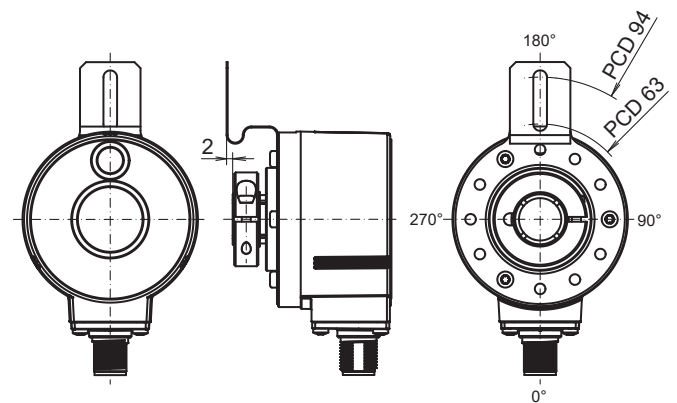
Clamping ring at A-side: Blind hollow shaft, cable radial



Clamping ring at A-side: Blind hollow shaft, cable axial



Clamping ring at A-side: Blind hollow shaft, cable tangential



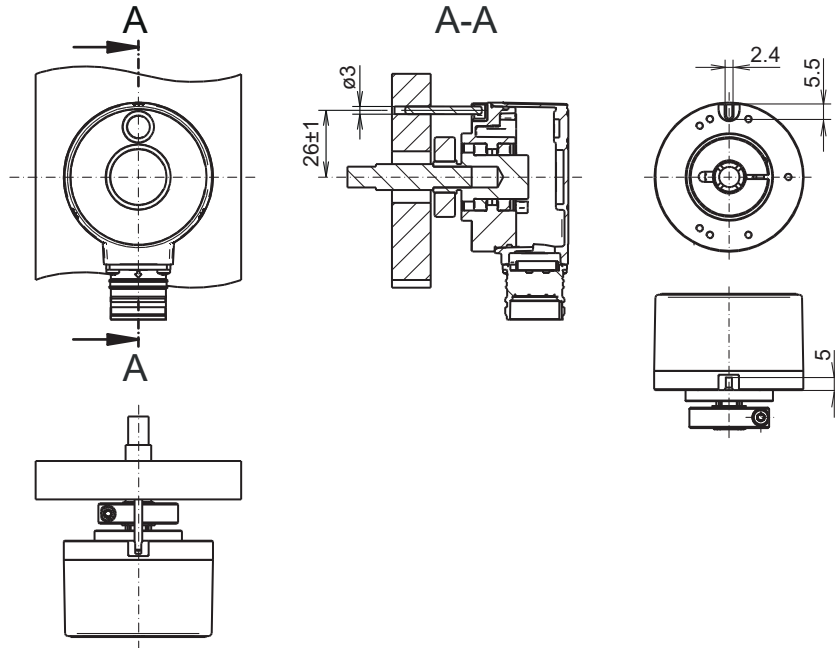
Flange version M: Mounting position torque support

EIL580-B

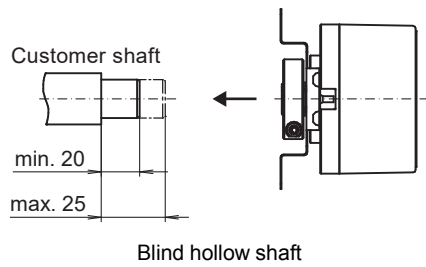
With blind hollow shaft

100...5000 pulses per revolution

Dimensions



Flange version P: Pin torque support, axial, clamping ring at A-side



EIL580-B

With blind hollow shaft

100...5000 pulses per revolution

Ordering reference

	EIL580	-	B	#	##	.	#	##	#	.	#####	.	A
Product	EIL580												
Shaft type													
Blind hollow shaft													B
Flange (Hollow shaft)													
Without stator coupling													N
With stator coupling, 1-armed, hole circle ø63...94 mm, M4, mounting position 180°													M
With stator coupling ø63 mm													T
Pin torque support 3 mm, axial/radial													P
Blind hollow shaft													
ø8 mm, clamping ring, A-side													08
ø3/8" (ø9.52 mm), clamping ring, A-side													U3
ø10 mm, clamping ring, A-side													10
ø12 mm, clamping ring, A-side													12
ø1/2" (ø12.7 mm), clamping ring, A-side													U4
ø14 mm, clamping ring, A-side													14
ø15 mm, clamping ring, A-side													15
Protection class													
IP 65													5
IP 67													7
Connection													
Cable radial, 1 m													R
Cable radial, 2 m													L
Flange socket radial, M23, 12-pin, male contacts, CCW													F
Flange socket radial, M12, 8-pin, male contacts, CCW													B
Cable axial, 1 m													T
Cable axial, 2 m													U
Flange socket axial, M23, 12-pin, male contacts, CCW													D
Flange socket axial, M12, 8-pin, male contacts, CCW													A
Cable tangential, 1 m													P
Cable tangential, 2 m													Q
Voltage supply / output													
5 VDC, TTL/RS422, 6 channel													E
8...30 VDC, TTL/RS422, 6 channel (Vout=5V)													H
8...30 VDC, HTL/push pull, 6 channel													N
4,75...30 VDC, HTL/push pull, 6 channel (Vout=Vin)													Q

EIL580-B

With blind hollow shaft

100...5000 pulses per revolution

Ordering reference

		EIL580	-	B	#	##	.	#	##	#	.	#####	.	A
Pulses per revolution														
100														100
120														120
150														150
200														200
250														250
256														256
300														300
360														360
400														400
440														440
500														500
512														512
600														600
720														720
800														800
900														900
1000														1000
1024														1024
1200														1200
1250														1250
1440														1440
1500														1500
1800														1800
2000														2000
2048														2048
2500														2500
3000														3000
3600														3600
4000														4000
4096														4096
5000														5000

Operating temperature

-40...+85 °C

Accessories

Mounting accessories

11066083	Torque arm, 1-arm (mounting kit 006)
11073119	Torque arm, 1-arm (mounting kit 021)
11067367	Torque arm, 1-arm (mounting kit 028)
11100198	Stator coupling, 2-armed (mounting kit 046)
11113210	Torque arm, 1-arm (mounting kit 047)
11124300	Torque arm, 1-arm (mounting kit 048)
11155325	Rigid mounting plate, 1-arm (mounting kit 099)
11106627	Fan cover clip 8 mm
11094674	Clamping ring 12/31/ 8 M3 8.8
11094675	Clamping ring 17/31/ 8 M3 8.8
11116921	Insulating sleeve ø10 mm/ø12 mm/25 mm long
11116923	Insulating sleeve ø12 mm/ø14 mm/25 mm long