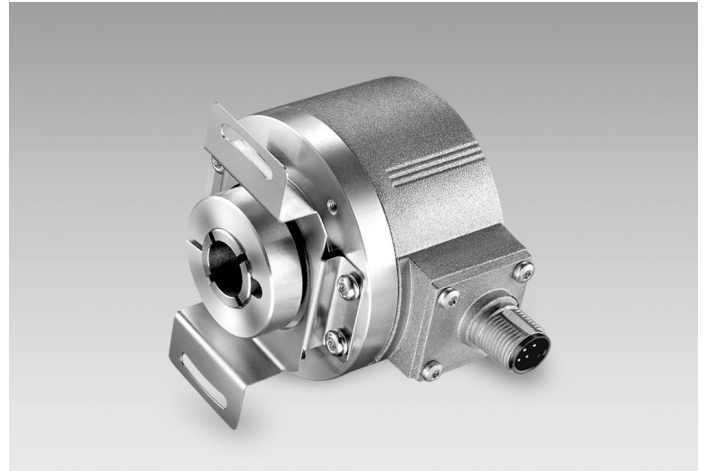


EIL580-T

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

Overview

- Size ø58 mm
- Precise optical sensing
- Output signal level TTL or HTL
- Through hollow shaft, ø8...15 mm
- Connection 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	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3
Approval	UL 508 / CSA 22.2

Technical data - mechanical design

Size (flange)	ø58 mm
Shaft type	ø8...15 mm (through hollow shaft) ø9.52 mm (through hollow shaft) ø12.7 mm (through hollow shaft)
Protection EN 60529	IP 65 (without shaft seal) IP 67 (with shaft seal)
Operating speed	≤3000 rpm (+20 °C, IP 67) ≤6000 rpm (+20 °C, IP 65)
Starting torque	≤0,025 Nm (+20 °C, IP 65) ≤0,03 Nm (+20 °C, IP 67)
Material	Housing: aluminium die-cast Flange: aluminium
Operating temperature	-40...+85 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN 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-T

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

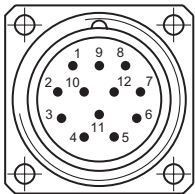
Terminal assignment

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

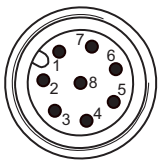
Cable data: PVC, [4x2x0.14 mm²], bending radius >32.5 mm, outer diameter approx. 6.4 mm



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

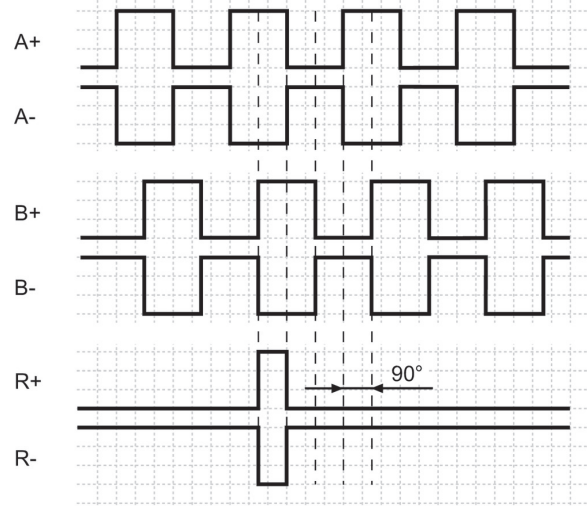
Flange connector M12, 8-pin

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

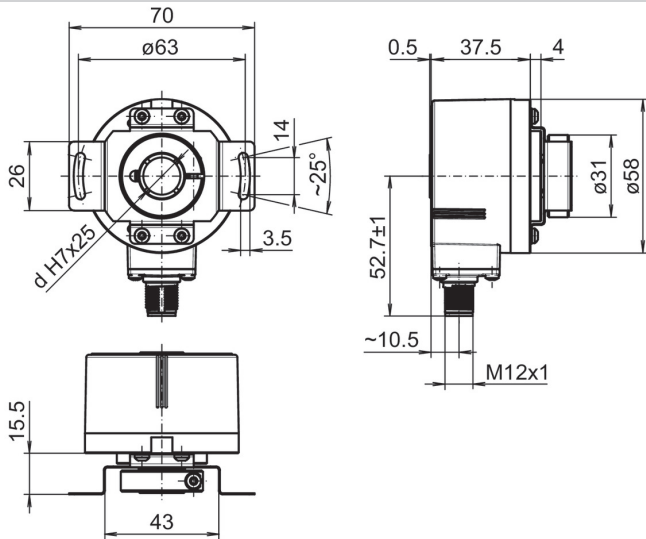
Outputs	TTL/RS422
Output level High	≥2.5 V
Output level Low	≤0.5 V
Load	≤20 mA

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

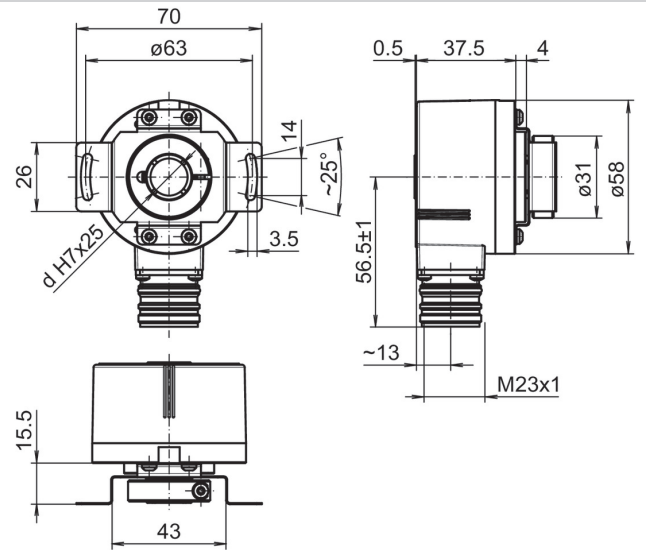
EIL580-T

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

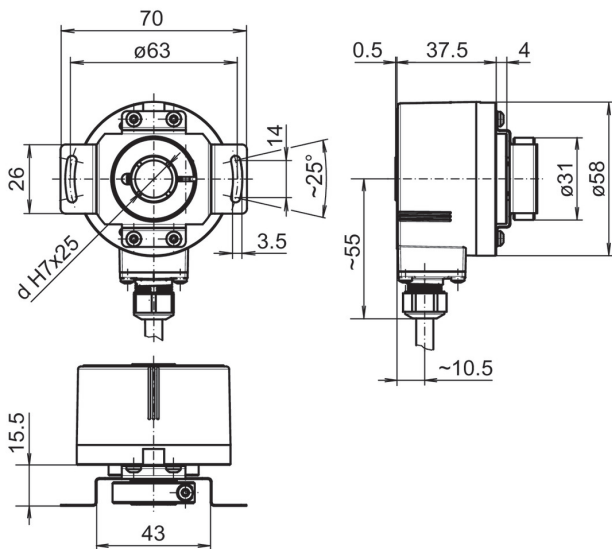
Dimensions



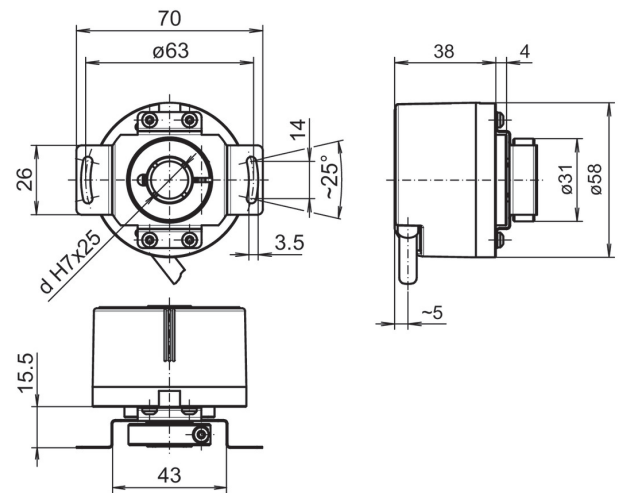
Clamping ring at A-side: Through hollow shaft, flange connector M12 radial



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



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

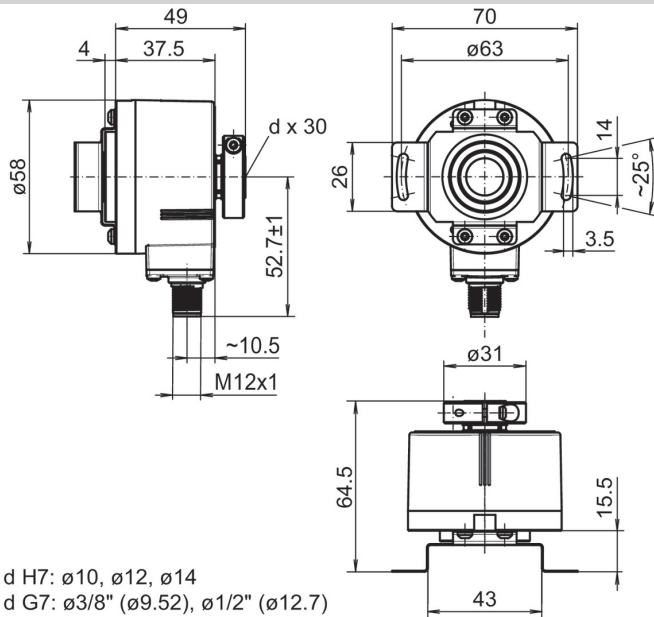


Clamping ring at A-side: Through hollow shaft, cable tangential

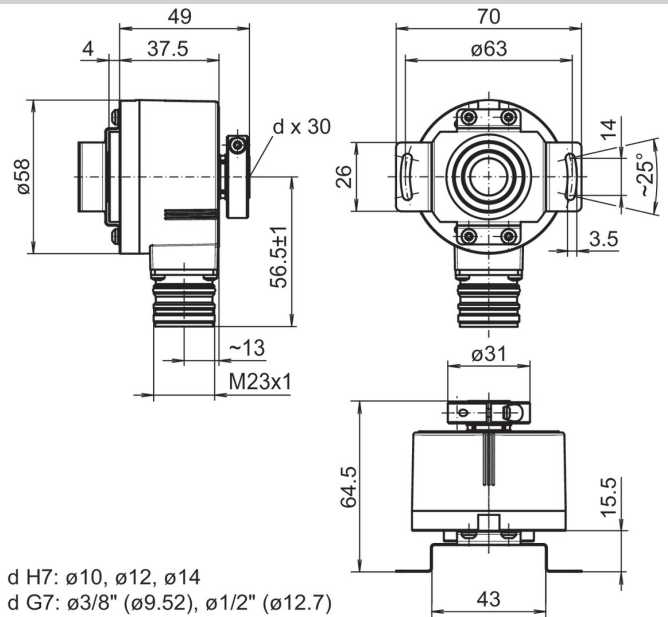
EIL580-T

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

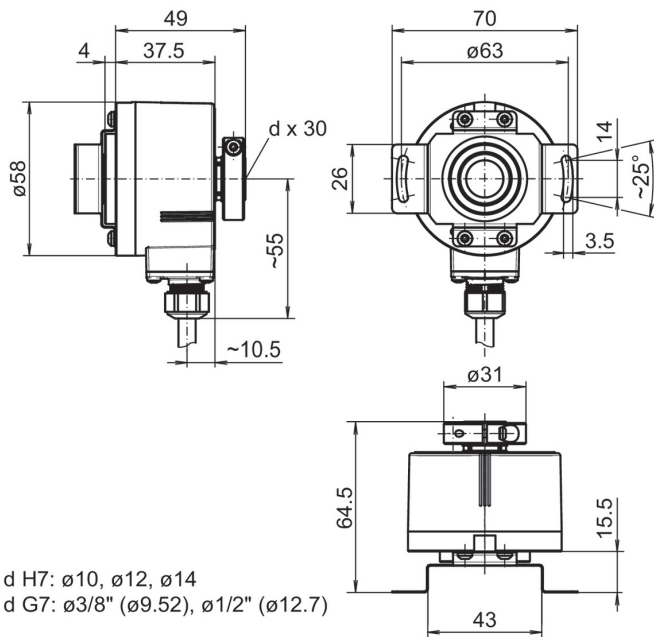
Dimensions



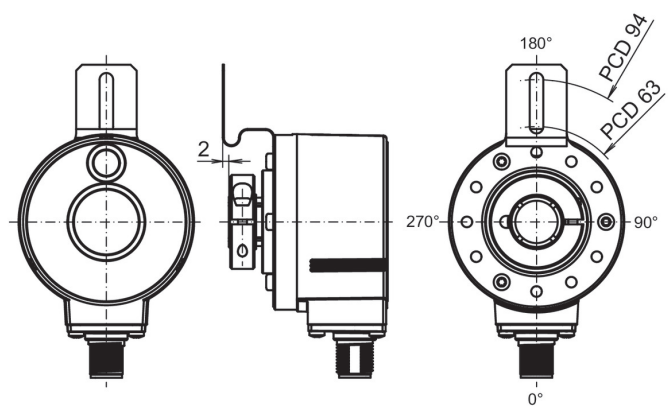
Clamping ring at B-side: Through hollow shaft, flange connector M12 radial



Clamping ring at B-side: Through hollow shaft, flange connector M23 radial



Clamping ring at B-side: Through hollow shaft, cable radial

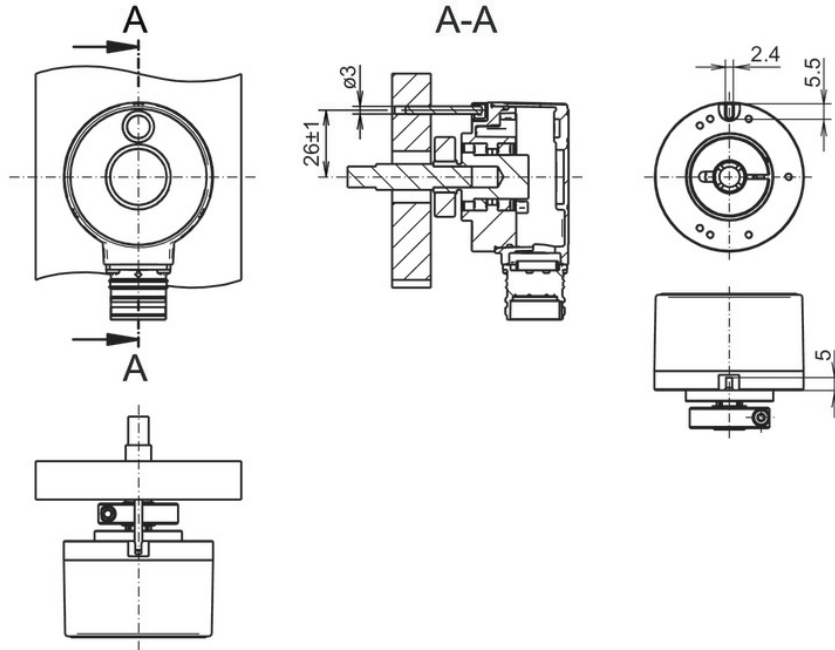


Flange version M: Mounting position torque support

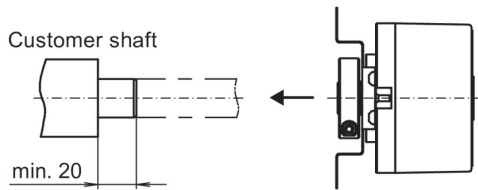
EIL580-T

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

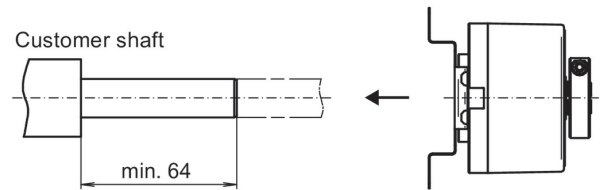
Dimensions



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



Clamping ring at A-side: Through hollow shaft



Clamping ring at B-side: Through hollow shaft

EIL580-T

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

Ordering reference

	EIL580	-	T	#	##	.	#	##	#	.	####	.	A
Product	EIL580												
Shaft type													
Through hollow shaft			T										
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
Through hollow shaft													
ø8 mm, clamping ring, A-side													O8
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
ø3/8" (ø9.52 mm), clamping ring, B-side													V3
ø10 mm, clamping ring, B-side													B0
ø12 mm, clamping ring, B-side													B2
ø1/2" (ø12.7 mm), clamping ring, B-side													V4
ø14 mm, clamping ring, B-side													B4
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 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-T

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

Ordering reference

	EIL580	-	T	#	##	.	#	##	#	.	####	.	A
Pulse number													
100													100
120													120
150													150
200													200
250													250
256													256
300													300
360													360
400													400
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

2020-10-21 The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

EIL580-T

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

Accessories

Mounting accessories

11066083	Mounting kit 006
11073119	Mounting kit 021
11067367	Mounting kit 028
11100198	Mounting kit 046
11113210	Mounting kit 047
11124300	Mounting kit 048
11155325	Mounting kit 099
11106627	Fan cover clip 8 mm
11094674	Clamping ring 12/31/ 8 M3 8.8 for EIL580 hollow shaft \varnothing 8...10 mm for clamping at A or B side
11094675	Clamping ring 17/31/ 8 M3 8.8 for EIL580 hollow shaft \varnothing 12...15 mm for clamping at A side
11123483	Clamping ring 16/31/ 8 M3 8.8 for EIL580 hollow shaft \varnothing 12...14 mm for clamping at B side
11116921	Insulating sleeve \varnothing 10 mm/ \varnothing 12 mm/25 mm long
11116923	Insulating sleeve \varnothing 12 mm/ \varnothing 14 mm/25 mm long

Connectors and cables

10127844	Connection cable 2 m shielded with female connector M12, 8-pin, straight (ESG 34FH0200G)
10129332	Connection cable 5 m shielded with female connector M12, 8-pin, straight (ESG 34FH0500G)
10129333	Connection cable 10 m shielded with female connector M12, 8-pin, straight (ESG 34FH1000G)
11053961	Connection cable 2 m shielded with female connector M12, 8-pin, angled (ESW 33FH0200G)
11053962	Connection cable 5 m shielded with female connector M12, 8-pin, angled (ESW 33FH0500G)
10170054	Connection cable 10 m shielded with female connector M12, 8-pin, angled (ESW 33FH1000G)
10164705	Female connector M23, 12-pin, CW
11095302	Female connector M23, 12-pin, CW, with cable 1 m
11100408	Female connector M23, 12-pin, CW, with cable 2 m
11100430	Female connector M23, 12-pin, CW, with cable 5 m
11100431	Female connector M23, 12-pin, CW, with cable 10 m