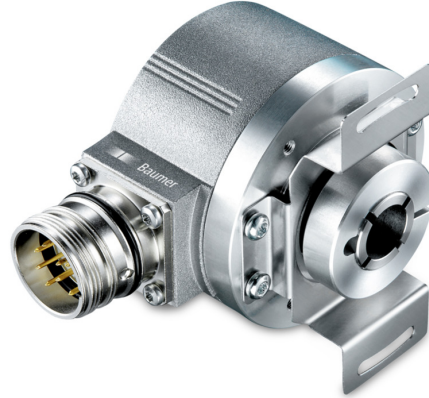


EIL580-T - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW
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 flange connector M23 CW radial
- Pulses per revolution up to 5000
- High protection up to IP 67
- High resistance to shock and vibrations
- Option 6301, hybrid ball bearings for protection against shaft currents



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 (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	EN 60068-2-6 Vibration 30 g, 10-2000 Hz EN 60068-2-27 Shock 250 g, 6 ms
Connection	Flange connector M23, 12-pin
Weight approx.	300 g

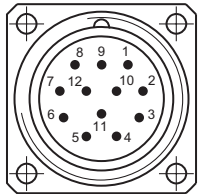
EIL580-T - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW
100...5000 pulses per revolution

Terminal assignment

Flange connector M23, 12-pin, clockwise (CW)

Pin	Assignment
1	B-
2	—
3	R+
4	R-
5	A+
6	A-
7	—
8	B+
9	—
10	GND
11	—
12	UB



Flange connector M23,
pin contacts, 12-pin,
clockwise (CW)

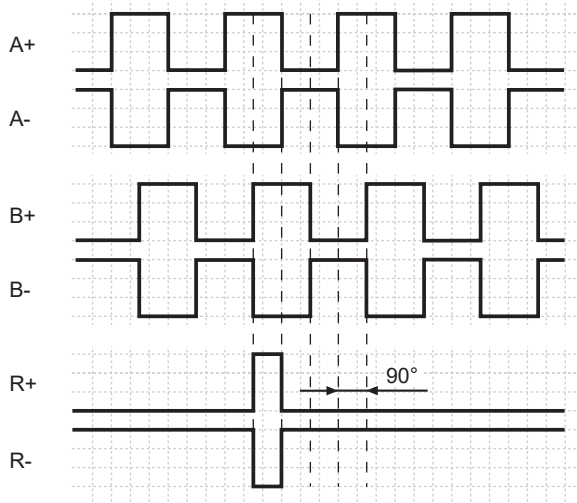
Trigger level

Outputs	TTL/RS422
Output level High	$\geq 2.5 \text{ V}$
Output level Low	$\leq 0.5 \text{ V}$
Load	$\leq 20 \text{ mA}$

Outputs	HTL/Push-pull
Output level High	$\geq U_B - 3 \text{ V}$
Output level Low	$\leq 1.5 \text{ V}$
Load	$\leq 20 \text{ mA}$

Output signals

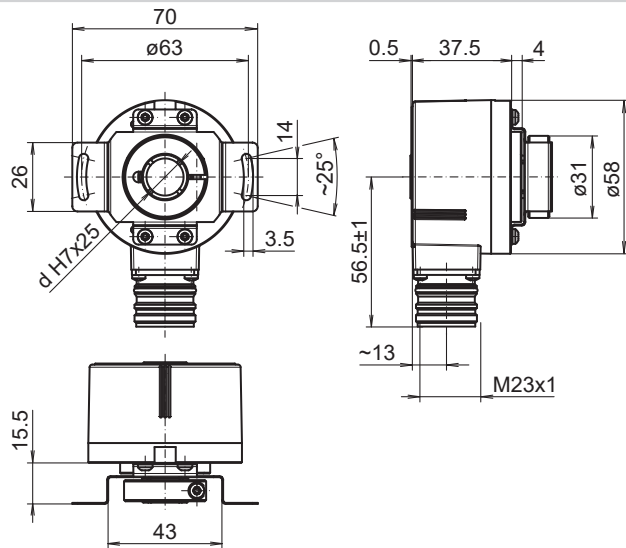
Clockwise rotating direction when looking at flange.



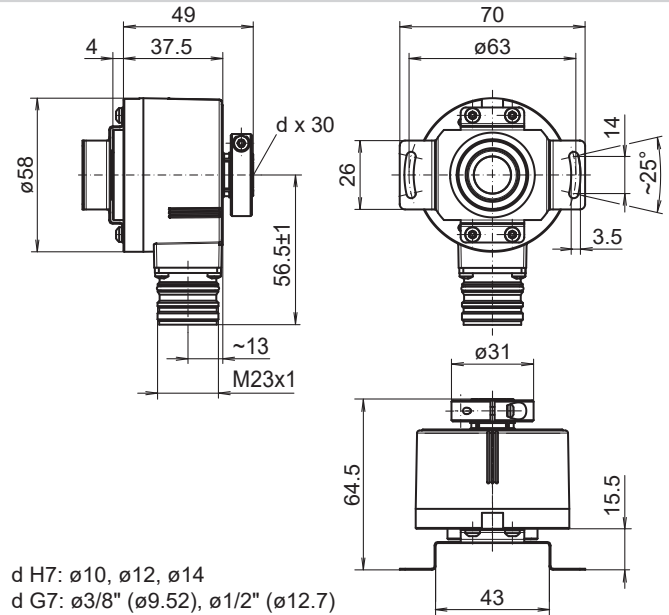
EIL580-T - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW
100...5000 pulses per revolution

Dimensions

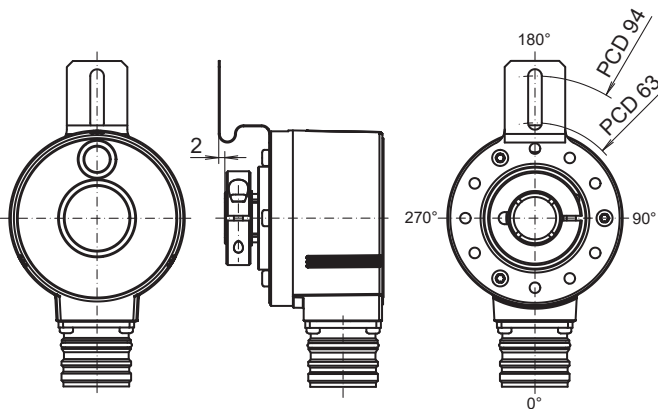


Clamping ring at A-side: Through hollow shaft, flange connector M23 radial



d H7: $\varnothing 10$, $\varnothing 12$, $\varnothing 14$
d G7: $\varnothing 3/8"$ ($\varnothing 9.52$), $\varnothing 1/2"$ ($\varnothing 12.7$)

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

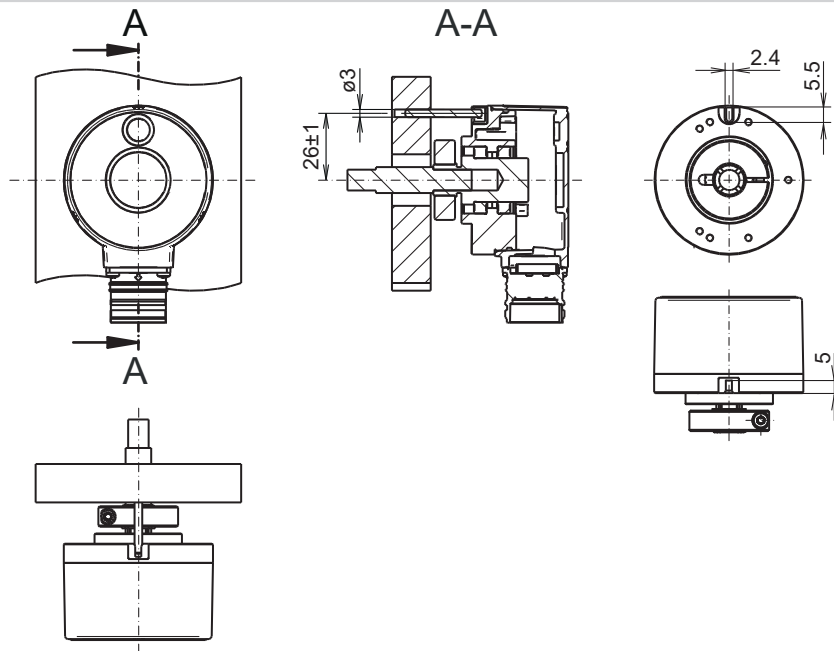


Flange version M: Mounting position torque support

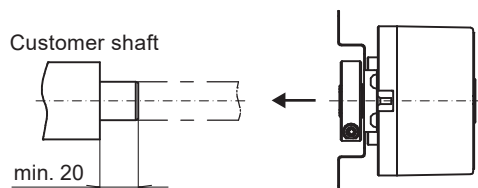
EIL580-T - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW
100...5000 pulses per revolution

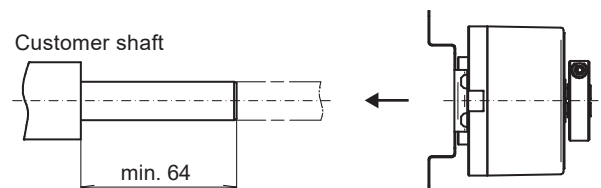
Dimensions



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 - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW
 100...5000 pulses per revolution

Ordering reference

	EIL580	-	T	#	##	.	#	E	#	.	#####	.	A	/	6301
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					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										
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															
Flange socket radial, M23, 12-pin, male contacts, CW								E							
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 - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW
100...5000 pulses per revolution

Ordering reference

														EIL580	-	T	#	##	.	#	E	#	.	#####	.	A	/	6301
Pulses per revolution																												
														100														
														120														
														150														
														200														
														250														
														256														
														300														
														360														
														400														
														440														
														500														
														512														
														600														
														720														
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														1800														
														2000														
														2048														
														2500														
														3000														
														3600														
														4000														
														4096														
														5000														
Operating temperature																												
-40...+85 °C																								A				

Option Mechanics

Hybrid ball bearings

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EIL580-T - Option 6301/M23 CW

With through hollow shaft, flange connector M23 CW

100...5000 pulses per revolution

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)
11106627	Fan cover clip 8 mm
11094674	Clamping ring 12/31/ 8 M3 8.8
11094675	Clamping ring 17/31/ 8 M3 8.8
11123483	Clamping ring 16/31/ 8 M3 8.8
11116921	Insulating sleeve ø10 mm/ø12 mm/25 mm long
11116923	Insulating sleeve ø12 mm/ø14 mm/25 mm long