

EIL580-B - Option 6301/M23 CW

With blind hollow shaft, flange connector M23 CW
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 flange connector M23 CW axial or 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 (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 M23, 12-pin
Weight approx.	300 g

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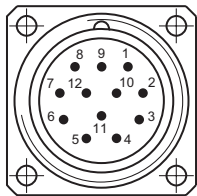
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Terminal assignment

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)

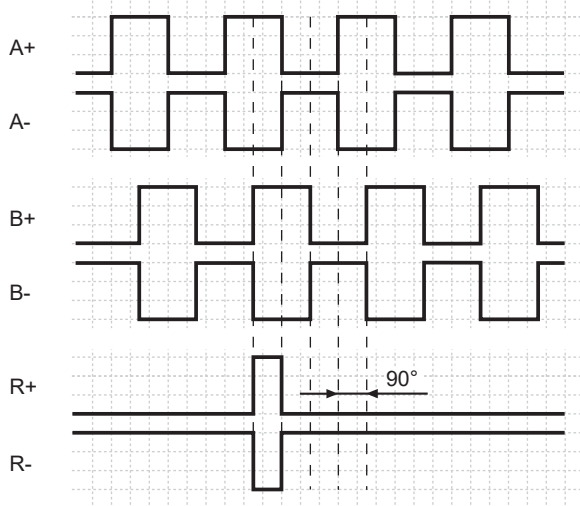
Trigger level

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.

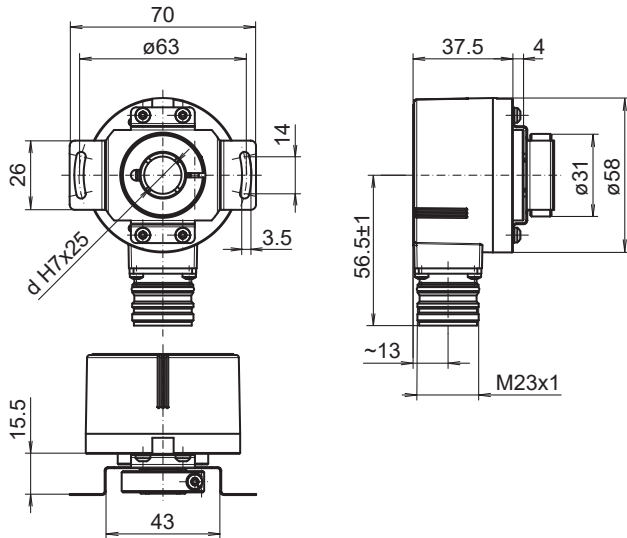


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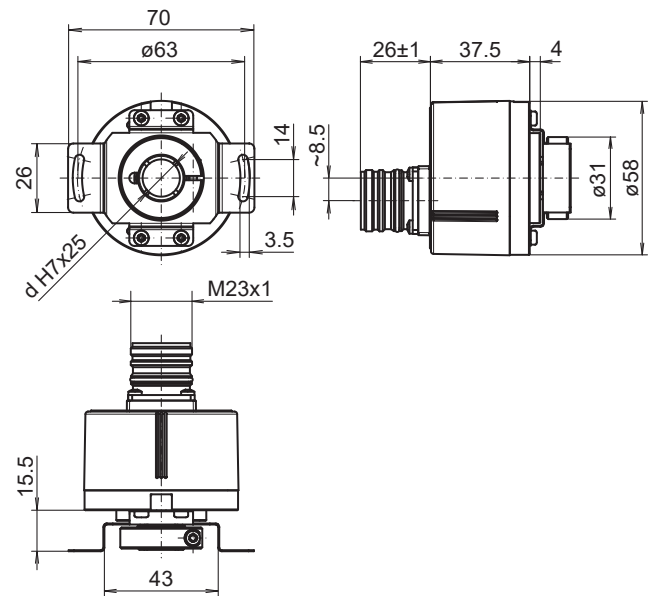
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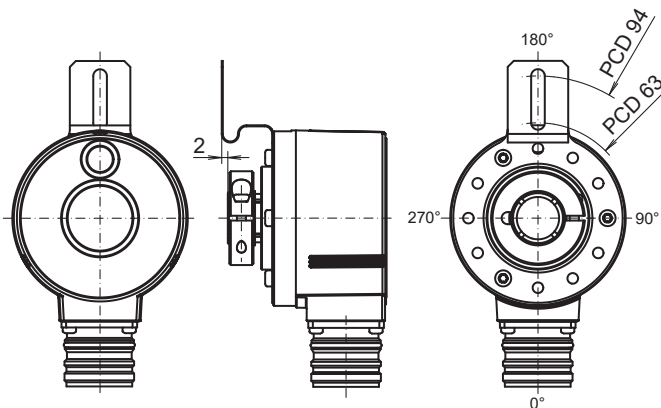
Dimensions



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



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



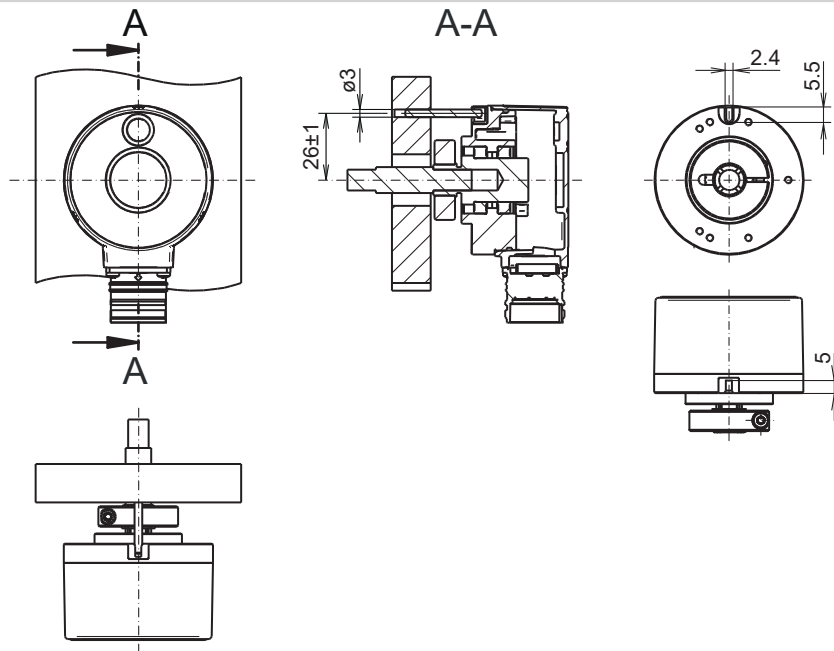
Flange version M: Mounting position torque support

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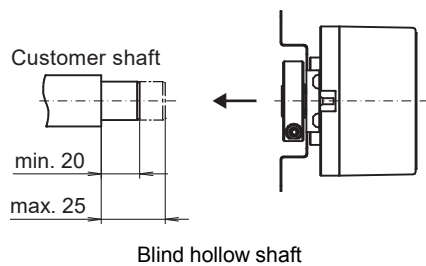
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Dimensions



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



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Ordering reference

	EIL580	-	B	#	##	.	#	##	#	.	#####	.	A	/	6301
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															
Flange socket radial, M23, 12-pin, male contacts, CW									E						
Flange socket axial, M23, 12-pin, male contacts, CW									C						
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						

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	EIL580	-	B	#	##	.	#	##	#	.	#####	.	A	/	6301
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													A		

Option Mechanics

Hybrid ball bearings

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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
11116921	Insulating sleeve ø10 mm/ø12 mm/25 mm long
11116923	Insulating sleeve ø12 mm/ø14 mm/25 mm long