

EIL580-SY - M23 CW

Solid shaft with synchro flange, flange connector M23 CW
100...5000 pulses per revolution

Overview

- Size ø58 mm
- Precise optical sensing
- Output signal level TTL or HTL
- Synchro flange
- 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



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	ø6 x 10 mm, solid shaft with flat
Admitted shaft load	≤40 N axial ≤80 N radial
Flange	Synchro flange
Protection EN 60529	IP 65 (without shaft seal) IP 67 (with shaft seal)
Operating speed	≤6000 rpm (+20 °C, IP 67) ≤12000 rpm (+20 °C, IP 65)
Starting torque	≤0.015 Nm (+20 °C, IP 65) ≤0.02 Nm (+20 °C, IP 67)
Material	Housing: aluminium die-cast Flange: aluminium Solid shaft: stainless steel
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 300 g, 6 ms
Connection	Flange connector M23, 12-pin
Weight approx.	300 g

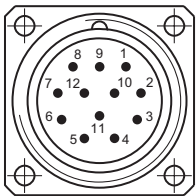
EIL580-SY - M23 CW

Solid shaft with synchro flange, 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)

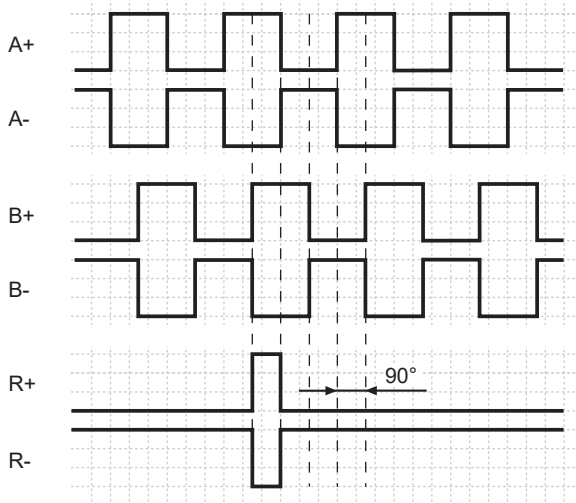
Trigger level

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

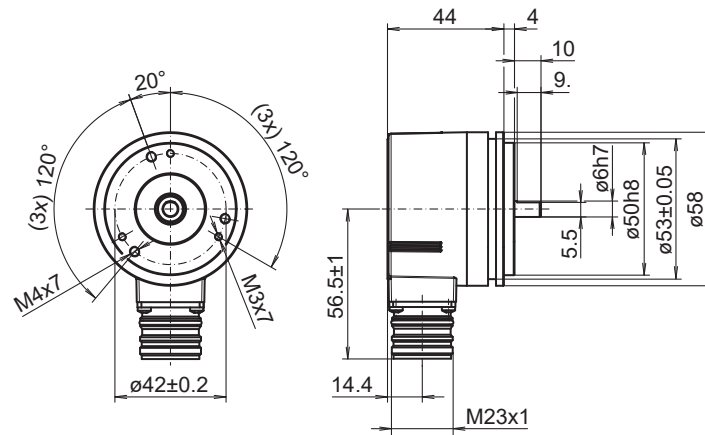
Clockwise rotating direction when looking at flange.



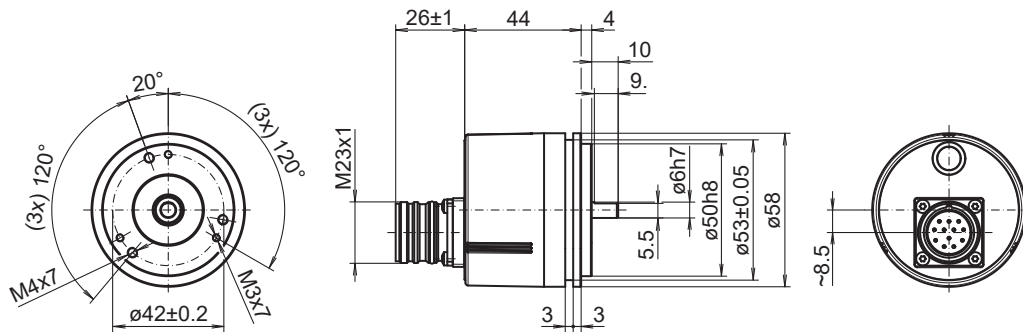
EIL580-SY - M23 CW

Solid shaft with synchro flange, flange connector M23 CW
100...5000 pulses per revolution

Dimensions



Synchro flange, flange connector M23, radial



Synchro flange, flange connector M23, axial

EIL580-SY - M23 CW

Solid shaft with synchro flange, flange connector M23 CW
 100...5000 pulses per revolution

Ordering reference

	EIL580	-	S	Y	##	.	#	##	#	.	####	.	A
Product	EIL580												
Shaft type													
Solid shaft			S										
Flange (shaft)													
Synchro flange, centering collar ø50 x 4 mm, flute ø53 mm, pitch circle diameter ø42 - 3xM3/3xM4				Y									
Shaft													
ø6 x 10 mm, with flat							06						
ø3/8 x 4/5 (Ø9.525 x 20.32 mm), with flat							U3						
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				

EIL580-SY - M23 CW

Solid shaft with synchro flange, flange connector M23 CW

100...5000 pulses per revolution

Ordering reference

	EIL580	-	S	Y	##	.	#	##	#	.	####	.	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													A

EIL580-SY - M23 CW

Solid shaft with synchro flange, flange connector M23 CW
100...5000 pulses per revolution

Accessories

Mounting accessories

11065916	Coupling CPS25 (L=19, D1=06 / D2=06)
11065917	Coupling CPS25 (L=19, D1=06 / D2=08)
11065922	Coupling CPS25 (L=19, D1=10 / D2=06)
11065926	Coupling CPS25 (L=19, D1=11 / D2=06)
11065928	Coupling CPS25 (L=19, D1=12 / D2=06)
10141131	Spring washer coupling (D1=6 / D2=6)
10141132	Spring washer coupling (D1=6 / D2=10)
11034139	Spring washer coupling (D1=6 / D2=16)
11050507	Bellows coupling (D1=06 / D2=10)
10117667	Mounting adaptor
10117668	Set of eccentric fixings for mounting clamp (10117667)
11065545	Set of eccentric fixings type A
10158124	Bearing flange for encoders with synchro flange (Z 119.035)