

EN580E.IL-SC10.GA1S1.01024.K

Solid shaft with clamping flange, 1024 sinewave cycles per revolution

Article number: 11246031

Overview

- Size $\varnothing 58$ mm
- Precise optical sensing
- Output signal level SinCos
- Sinewave cycles per revolution 1024
- High connection flexibility thanks to flexible connector M12



Technical data

Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5\%$
Reverse polarity protection	Yes
Short-circuit proof	Yes
Consumption w/o load	≤ 70 mA
Sinewave cycles per revolution	1024
Phase shift	$90^\circ \pm 10^\circ$
Sensing method	Optical
Output frequency	≤ 180 kHz (-3 dB)
Output signals	A+, B+, R+, A-, B-, R-
Output stages	SinCos 1 Vpp
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-4
Approval	UL-Listing: E217823

Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 10 \times 20$ mm, solid shaft with flat

Technical data - mechanical design

Admitted shaft load	≤ 40 N axial ≤ 80 N radial
Flange	Clamping flange
Protection EN 60529	IP 54 (flange side) IP 65 (housing side)
Operating speed	≤ 6000 rpm (+25 °C)
Starting torque	≤ 0.02 Nm
Material	Housing: aluminium Solid shaft: stainless steel
Operating temperature	-25...+100 °C (see general information)
Relative humidity	95 % non-condensing
Resistance	EN 60068-2-6 Vibration ± 0.75 mm - 10-58 Hz 20 g - 58-2000 Hz EN 60068-2-27 Shock 100 g, 11 ms
Connection	Connector M12, 8-pin, flexible
Weight approx.	300 g

General information

Self-heating correlated to installation and ambient conditions as well as to electronics and supply voltage must be considered for precise thermal dimensioning. Operating the encoder close to the maximum limits requires measuring the real prevailing temperature at the encoder flange.

Terminal assignment

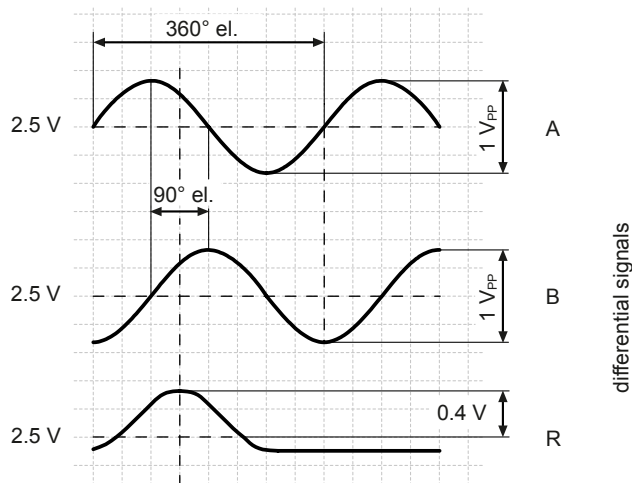
Connector M12, 8-pin

Pin	Assignment
1	0 V
2	+Vs
3	A+
4	A-
5	B+
6	B-
7	R+
8	R-



Output signals

Clockwise rotation when looking at flange.



Output signal level

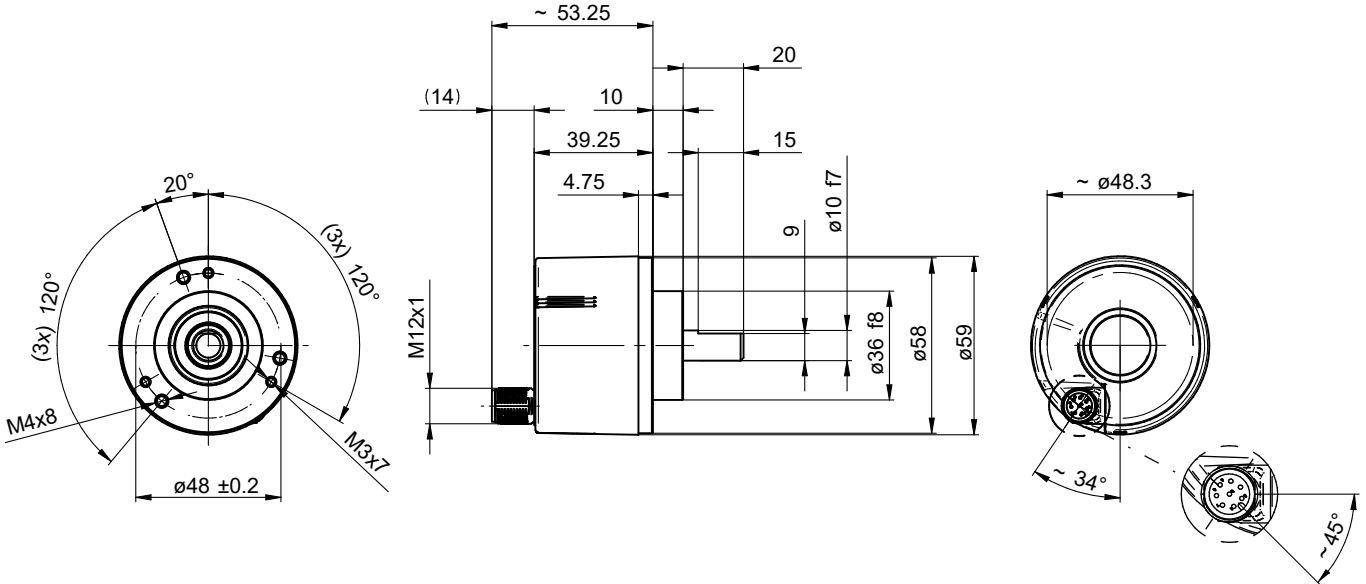
Outputs	Sine
Output amplitude A + B	1 V _{ss} at Z ₀ = 120 Ω
Output amplitude R	Appr. 0.4 V (useable part) at Z ₀ = 120 Ω

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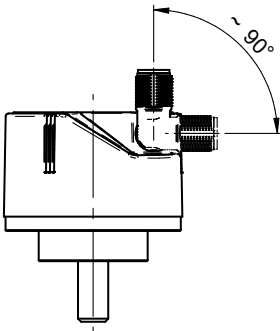
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Dimensions



Clamping flange, connector M12



Clamping flange, flexible connector M12

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Accessories**Mounting accessories**

11101781	Double loops coupling (D1=10 / D2=10)
11050507	Bellows coupling (D1=06 / D2=10)
11065923	Coupling CPS25 (L=19, D1=10 / D2=10)
11065922	Coupling CPS25 (L=19, D1=10 / D2=06)
10141132	Spring washer coupling (D1=6 / D2=10)
10141133	Spring washer coupling (D1=10 / D2=10)
11069337	Coupling CPS37 (L=24, D1=10 / D2=06)
11069340	Coupling CPS37 (L=24, D1=10 / D2=10)
11053277	Bellows coupling (D1=10 / D2=10)
11101893	Spring encoder arm
10125051	Mounting adaptor