

# EN580E.IL-TT14.GA1S1.01024.K

Through hollow shaft, 1024 sinewave cycles per revolution

Article number: 11246039

## 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	$\leq 70$ mA
Sinewave cycles per revolution	1024
Phase shift	$90^\circ \pm 10^\circ$
Sensing method	Optical
Output frequency	$\leq 180$ 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
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### Technical data - mechanical design

Shaft type	$\varnothing 14$ mm (through hollow shaft)
Motor shaft tolerance	$\pm 0.2$ mm (axial offset) $\leq 0.1$ mm (radial offset) $\leq 0.1$ mm (concentricity)
Protection EN 60529	IP 54 (flange side) IP 65 (housing side)
Operating speed	$\leq 6000$ rpm (+25 °C)
Starting torque	$\leq 0.04$ 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 10 g, 10-2000 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**

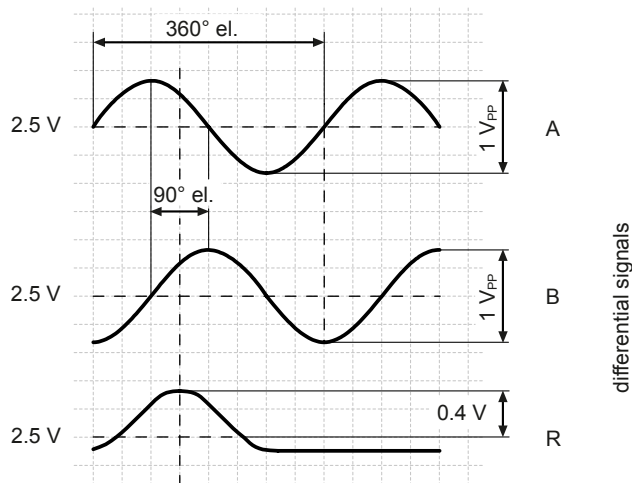
**Connector M12, 8-pin**

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**

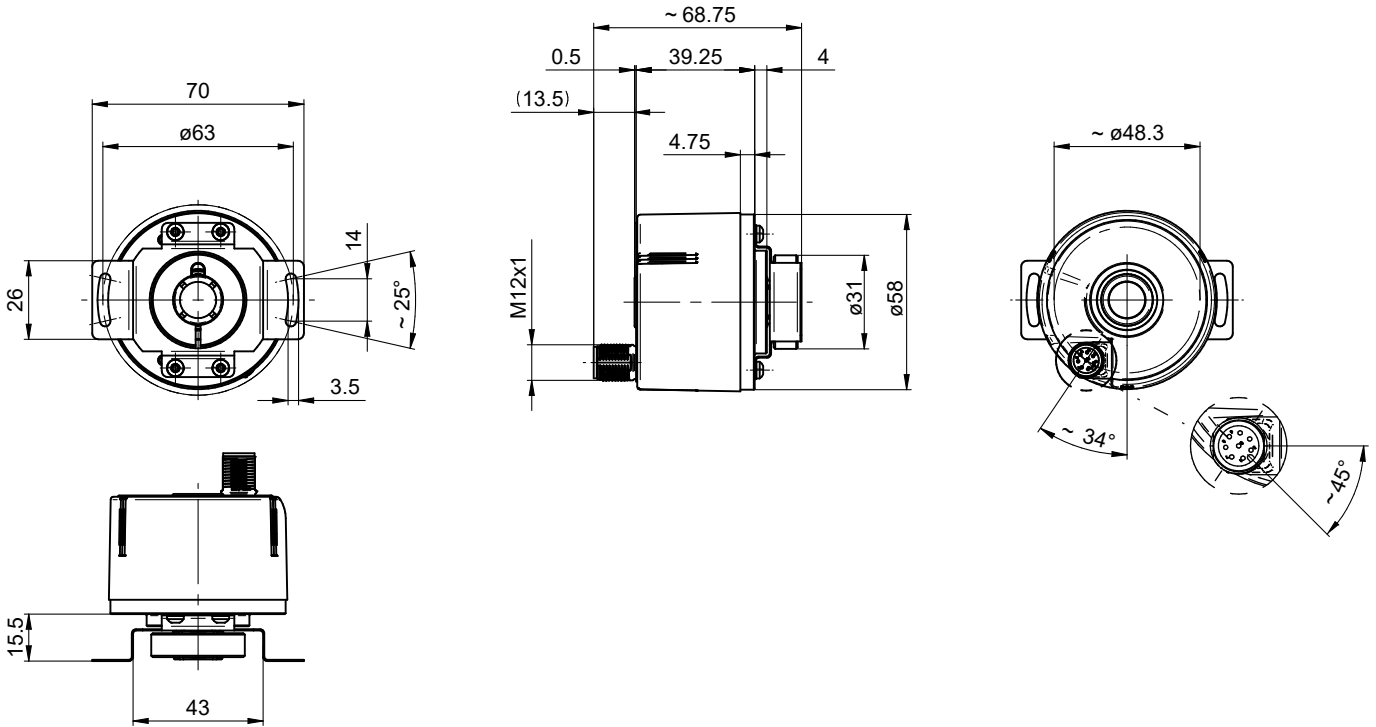
Outputs	Sine
Output amplitude A + B	1 V <sub>ss</sub> at Z <sub>0</sub> = 120 Ω
Output amplitude R	Appr. 0.4 V (useable part) at Z <sub>0</sub> = 120 Ω

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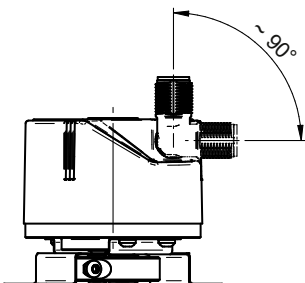
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## Dimensions



Through hollow shaft, connector M12



Through hollow shaft, flexible connector M12

**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)
11113210	Torque arm, 1-arm (mounting kit 047)
11124300	Torque arm, 1-arm (mounting kit 048)
11106627	Fan cover clip 8 mm
11116921	Insulating sleeve $\varnothing$ 10 mm/ $\varnothing$ 12 mm/25 mm long
11116923	Insulating sleeve $\varnothing$ 12 mm/ $\varnothing$ 14 mm/25 mm long
11730156	Stator coupling, 2-arm - EN5xx / $\varnothing$ 68 mm / M3
11730157	Stator coupling, 2-arm - EN5xx / $\varnothing$ 68 mm / M4
11730158	Stator coupling, 2-arm - EN5xx / $\varnothing$ 73 mm / M3
11721627	Stator coupling, 2-arm (mounting kit 207)