Baumer
Passion for Sensors

Incremental encoders/optoPulse

EN580E.IL-TT14.GA1H1.02048.K

Through hollow shaft, 2048 pulses per revolution

Article number: 11245994

Overview

- Size ø58 mm
- Precise optical sensing
- Output signal level HTL
- Pulses per revolution 2048
- High connection flexibility thanks to flexible connector M12

Technical data

Technical data - electrical ratings	
Voltage supply	8...30 VDC
Reverse polarity protection	Yes
Short-circuit proof	Yes
Consumption w/o load	≤70 mA
Pulses per revolution	2048
Phase shift	90 ° ±10°
Duty cycle	40…60 %
Reference signal	Zero pulse, width 90° ±10 %
Sensing method	Optical
Output frequency	≤160 kHz (HTL)
Output signals	A+, B+, R+, A-, B-, R-
Output stages	HTL/push-pull
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-4
Approval	UL Class 2

Technical data - mechanical design	
Size (flange)	ø58 mm
Shaft type	ø14 mm (through hollow shaft)
Motor shaft tolerance	± 0.2 mm (axial offset) ≤ 0.1 mm (radial offset) ≤ 0.1 mm (concentricity)
Protection EN 60529	IP 54 (flange side) IP 65 (housing side)
Operating speed	≤6000 rpm (+25 °C)
Starting torque	≤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

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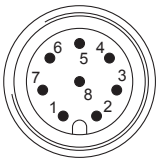
General information

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

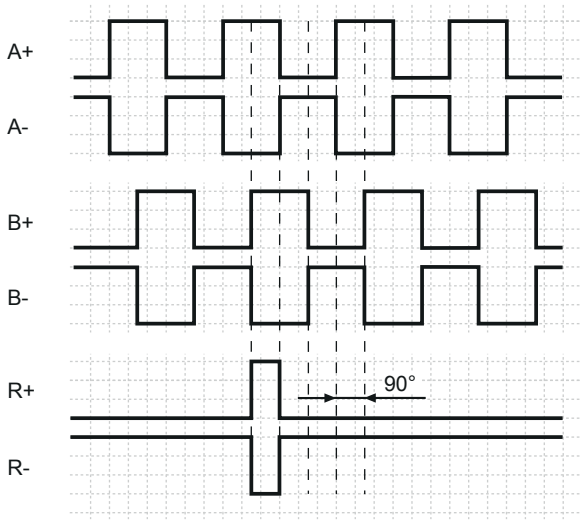
Connector M12, 8-pin

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



Output signals

Clockwise rotating direction when looking at flange.



Trigger level

Outputs	**TTL/RS422**
Output level High	≥2.5 V
Output level Low	≤0.5 V
Load	≤20 mA

Outputs	**HTL/Push-pull**
Output level High	≥UB -3 V
Output level Low	≤1.5 V
Load	≤20 mA

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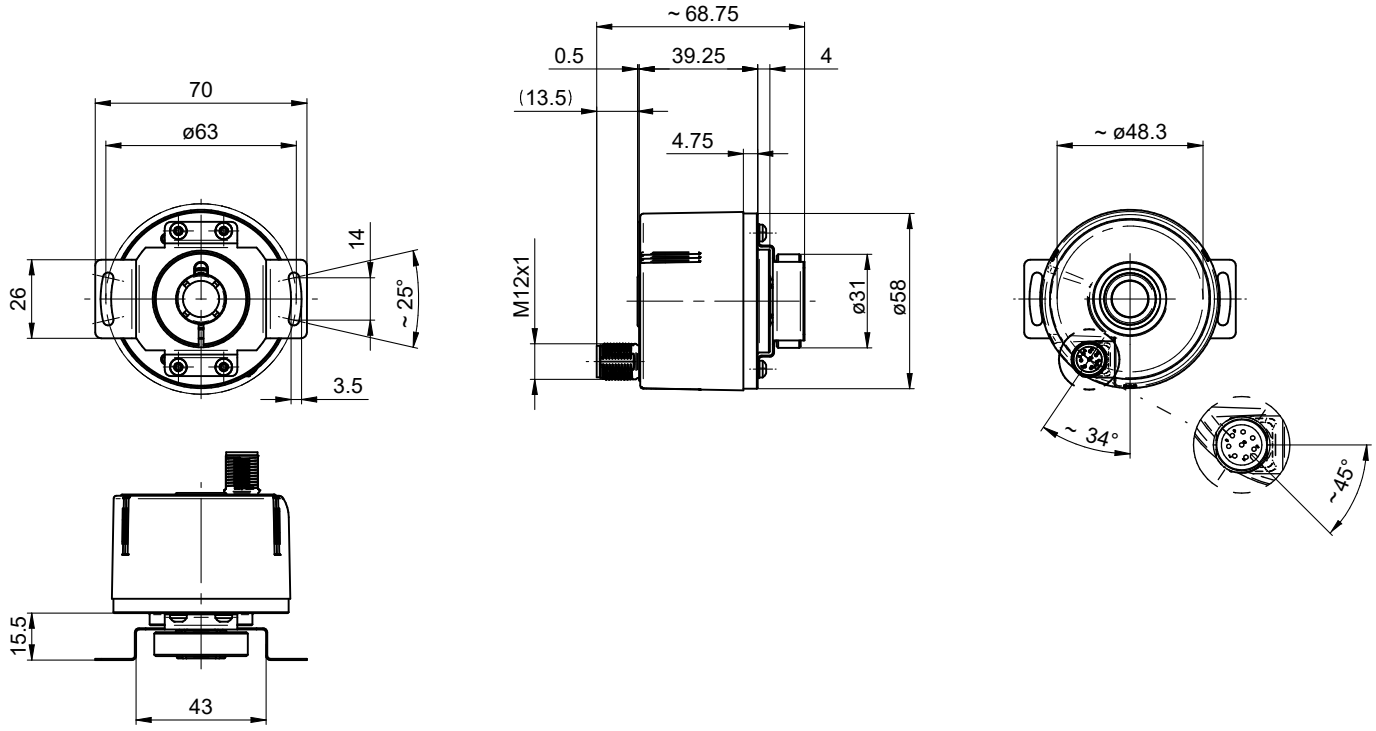
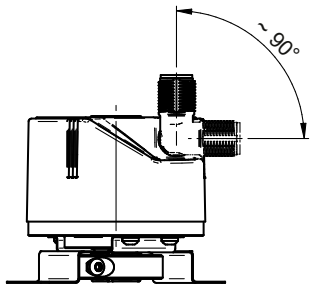
Dimensions



Through hollow shaft, connector M12



Through hollow shaft, flexible connector M12

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Accessories

Mounting accessories	
11066083	Mounting kit 006
11073119	Mounting kit 021
11067367	Mounting kit 028
11100198	Mounting kit 046
11113210	Mounting kit 047
11124300	Mounting kit 048
11106627	Fan cover clip 8 mm
11116921	Insulating sleeve ø10 mm/ø12 mm/25 mm long
11116923	Insulating sleeve ø12 mm/ø14 mm/25 mm long