

Incremental encoders

Solid shaft with clamping or synchro flange

1...65536 pulses per revolution programmable

EIL580P - solid shaft



EIL580P with clamping flange

Features

- Size \varnothing 58 mm
- Precise optical sensing
- Output signal level programmable (TTL or HTL)
- Clamping or synchro flange
- Connection axial, radial or tangential
- Pulses per revolution 1...65536, programmable
- High protection up to IP67
- High shock and vibration resistance

Technical data - electrical ratings

Voltage supply	4.75...30 VDC
Reverse polarity protection	Yes
Short-circuit proof	Yes
Consumption w/o load	\leq 70 mA
Initializing time	\leq 30 ms after power on
Pulses per revolution	1...65536
Duty cycle	45...55 % typical at 2048 ppr
Reference signal	Zero pulse 90° or 180°
Sensing method	Optical
Output frequency	\leq 300 kHz (TTL) \leq 160 kHz (HTL)
Output signals	A+, B+, R+, A-, B-, R-
Output stage	TTL/RS422 HTL/push pull
Programmable parameters	Output level TTL/HTL Pulse number 1...65536 Zero pulse width 90°/180° Zero pulse position Signal sequence
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3
Approval	UL 508 / CSA 22.2

Technical data - mechanical design

Size (flange)	\varnothing 58 mm
Shaft loading	\leq 40 N axial \leq 80 N radial
Protection DIN EN 60529	IP 65 (without shaft seal), IP 67 (with shaft seal)
Operating speed	\leq 6000 rpm (+20 °C, IP 67) \leq 12000 rpm (+20 °C, IP 65)
Starting torque	\leq 0.01 Nm (+20 °C, IP 65) \leq 0.02 Nm (+20 °C, IP 67)
Materials	Housing: aluminium die-cast Flange: aluminium Solid shaft: stainless steel
Operating temperature	-40...+100 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN EN 60068-2-27 Shock 300 g, 6 ms
Connection	Flange connector M12, 8-pin Flange connector M23, 12-pin Cable
Weight approx.	300 g

EIL580P - clamping flange

Shaft type	\varnothing 10 x 20 mm, solid shaft with edge (clamping flange)
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EIL580P - synchro flange

Shaft type	\varnothing 6 x 10 mm, solid shaft with edge (synchro flange)
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