

Incremental encoders

Programmable

Precise optical sensing.

Max. 320 000 pulses per revolution.

- Configurable by programming software, switch or external programming tool
- Solid shaft, blind or through hollow shaft
- Configurable electric interface level (TTL or HTL)



Features	■ Solid shaft max. ø6 mm	■ Through hollow shaft max. ø12 mm ■ Max. 320 000 pulses per revolution	■ Blind hollow shaft max. ø12 mm ■ Max. 320 000 pulses per revolution	■ Through hollow shaft max. ø14 mm ■ Detachable cable
Product family	BNIV	BHG HighRes	BHF HighRes	ITD2PH00
Configurable parameters	Pulses per revolution			Pulses per revolution, output stage HTL or TTL, zero pulse, signal sequence
Configuration	HEX switch	Programming software, programming tool		
Sensing method	Optical			
Size (housing)	ø40 mm			
Voltage supply	4.75...30 VDC	5 VDC ±10 %, 10...30 VDC		4.75...30 VDC
Output stage				
- TTL/RS422	■	■	■	–
- HTL/push-pull	■	■	■	■
Output signals	A 90° B, N + inverted			
Shaft type				
- Solid shaft	ø6 mm	–	–	–
- Blind hollow shaft	–	–	ø12 mm	–
- Through hollow shaft	–	ø12 mm	–	ø10 mm, ø12 mm, ø14 mm
Connection				
- Flange connector M12	Radial	–	Radial	–
- Flange connector M23	–	Radial	–	–
- Cable	Radial	–	–	Tangential
Pulses per revolution	100...25 000	4096...320 000		1...65536
Operating temperature	-20...+85 °C			-30...+100 °C
Protection	IP 64	IP 42, IP 65		IP 65
Operating speed	≤3000 rpm	≤6000 rpm		
Max. shaft load	≤10 N axial, ≤40 N radial	–	–	–

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Maximum flexibility by versatile configuration options.

HighRes – max. 320 000 pulses per revolution



Features	<ul style="list-style-type: none"> Through hollow shaft max. $\varnothing 25.4$ mm 	<ul style="list-style-type: none"> Solid shaft with clamping flange max. $\varnothing 10$ mm or synchro flange max. $\varnothing 6$ mm 	<ul style="list-style-type: none"> Blind or through hollow shaft max. $\varnothing 15$ mm
Product family	HS35P	EIL580P-SC EIL580P-SY	EIL580P-B EIL580P-T
Configurable parameters	Pulses per revolution, output stage HTL or TTL, zero pulse	Pulses per revolution, output stage HTL or TTL, zero pulse, signal sequence	
Configuration	Programming software, programming tool		
Sensing method	Optical		
Size (housing)	$\varnothing 3.15''$ ($\varnothing 80$ mm)	$\varnothing 58$ mm	
Voltage supply	4.75...30 VDC		
Output stage			
- TTL/RS422	■	■	■
- HTL/push-pull	■	■	■
Output signals	A 90° B, N + inverted	A 90° B, R + inverted	
Shaft type			
- Solid shaft	–	$\varnothing 10$ mm	$\varnothing 6$ mm
- Blind hollow shaft	–	–	$\varnothing 8...15$ mm
- Through hollow shaft	$\varnothing 0.375...1''$ ($\varnothing 9.525...25.4$ mm)	–	$\varnothing 8...15$ mm
Connection			
- Flange connector M23	–	Radial / axial	
- Flange connector MIL	Radial	–	Radial
- Cable	Radial	Radial / axial / tangential	
			Radial / tangential
Pulses per revolution	1...8192	1...65536	
Operating temperature	-40...+100 °C (-40...+212 °F)	-40...+100 °C	
Protection	IP 65, IP 67		
Operating speed	≤ 5000 rpm	$\leq 12\,000$ rpm (IP 65) ≤ 6000 rpm (IP 67)	≤ 8000 rpm (IP 65), ≤ 6000 rpm (IP 67) ≤ 6000 rpm (IP 65), ≤ 3000 rpm (IP 67)
Max. shaft load	–	≤ 40 N axial, ≤ 80 N radial	–
Option	–	Isolated hollow shaft, flange variant, connector variant	