

EH 80 C / K / P / PG BLIND / THROUGH HOLLOW SHAFT INCREMENTAL ENCODER

MAIN FEATURES

Encoder series ø 80 mm with very high resistance to shock and vibrations recommended in feedback control systems on AC servomotors.

- · 3 channel encoder (A / B / Z) up to 2048 ppr
- Power supply up to +30 V DC with several electric interfaces available
- · Up to 105 kHz output frequency
- Cable output, connectors available on cable end
- · Through or blind hollow shaft diameter up to 15 mm
- · Shaft fixing by grain or collar clamping





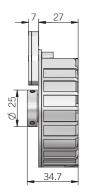
ORDERING CODE	EH	80C	500	S	5	L	8	X	6	PR	. XXX
	SERIES										
	incremental encoder EH	MODEL									
	blind hollow s	MODEL haft 80C									
b	lind hollow shaft with rear fi	ixing 80K									
through ho	through hollow s llow shaft with collar clamp										
tinougii noi	now shart with conar clamp	-	OLUTION								
		or from 100									
	refer to the	e available		RO PULSE							
		٧	vithout zer	o pulse S							
			with zer	o pulse Z							
		(wit	h L alactrics	POWEI (al interface	SUPPLY						
		(WIL	II L CICULIU		DC 5/28						
					TRICAL IN						
				IN	PN open c	sh-pull P					
				- 100 11 00	lin	e driver L					
		powe	er supply t	5/28 V DC	output R		IAMETER				
							P) mm 8				
						, , , , ,	mm 10				
					(mo	(mod. C - I d. C - P - P(
						d. C - P - P(G) mm 15				
						E	NCLOSURE	RATING IP 64 X			
								ROTATION	SPEED		
							(mod. F	P - PG) 3000) rpm 3		
							(mod.	. C - K) 6000		UT TYPE	
							rac	dial (standa			
			preferred o	able length	s 1,5 / 2 / 3	/5/10 m,	to be added a			PR5)	
											VARIANT

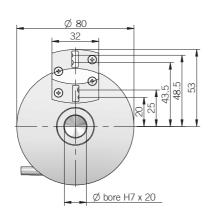




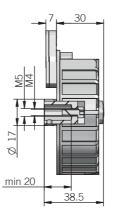
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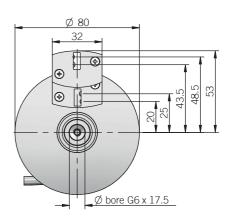
80C



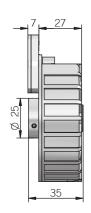


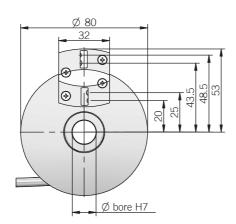
80K



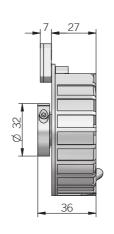


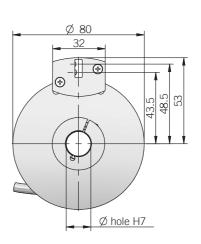
80P





80PG





recommended mating shaft tolerance g6, model 80K mating shaft tolerance h7 for torque pin please refer to Accessories dimensions in mm

ELECTRICAL SPECIFICATIONS			
Resolution	from 100 to 2048 ppr		
Power supply ¹	$ 5 = 4,5 \dots 5,5 \text{ V DC} $ $5/28 = 4,5 \dots 30 \text{ V DC (reverse polarity protection)} $		
Power draw without load	800 mW max		
Max load current	C/P = 50 mA/channel L/RS = 20 mA/channel		
Electrical interface ²	NPN open collector (AEIC-7273, pull-up max +30 V DC) push-pull / line driver HTL (AEIC-7272 or similar) line driver RS-422 (AELT-5000 or similar)		
Max output frequency	105 kHz		
Counting direction	A leads B clockwise (shaft view)		
Index signal	90°e (gated A&B)		
Mean time to dangerous failure (MTTF _d) ³ according to EN ISO 13849-1	207 years		
Mission time (Tm) ³	20 years		
Diagnostic coverage (DC) ³	0%		
Cable type	shielded - fixed installation conductors section 0,22 mm²/AWG 24 bending radius min 60 mm		
Electromagnetic compatibility	according to 2014/30/EU directive		
RoHS	according to 2011/65/EU directive		
UL / CSA	file n. E212495		

MECHANICAL SPECIFICATIONS			
Bore diameter	Ø8/10/12/14/15 mm		
Enclosure rating	IP 64 (IEC 60529)		
Max rotation speed	3000 rpm (mod.P / PG) 6000 rpm (mod.C / K)		
Shock	70 G, 11 ms (IEC 60068-2-27)		
Vibration	30 G, 10 2000 Hz (IEC 60068-2-6)		
Moment of inertia	4 x 10 ⁻⁶ kgm ² (95 x 10 ⁻⁶ lbft ²)		
Starting torque (at +20°C / +68°F)	< 0,04 Nm (5,66 Ozin)		
Bearing stage material	PA66 or PPS glass fiber reinforced		
Shaft material	aluminum (mod. C / K) stainless steel (mod.P / PG)		
Housing material	PA66 or PPS glass fiber reinforced		
Bearings	n.2 ball bearings		
Bearings life	10 ⁹ revolutions		
Operating temperature ^{4, 5}	-20° +85 °C (-4° +185°F) -20° +100°C (-4° +212°F) on demand		
Storage temperature ⁵	-25° +85 °C (-13° +185°F)		
Weight	250 g (8,82 oz)		

¹ as measured at the transducer without cable influences

² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

³ this product is not a safety component, for further details refer to TECHNICAL BASICS section

⁴ measured on the transducer flange

⁵ condensation not allowed

CONNECTIONS						
Function	Cable C / P	Cable L/RS				
+V DC	red	red				
0 V	black	black				
A+	green	green				
A-	/	brown or grey				
B+	yellow	yellow				
В-	/	orange				
Z+	blue	blue				
Z-	/	white				
+	shield	shield				

RESOLUTIONS

100* - **200** - 250 - 256 - 360 - 400 - **500** - 512 - 600 - **1000** - **1024 - 2000 - 2048**

^{*}available without zero pulse, please directly contact our offices for other pulses, preferred resolutions in bold

