

MAIN FEATURES

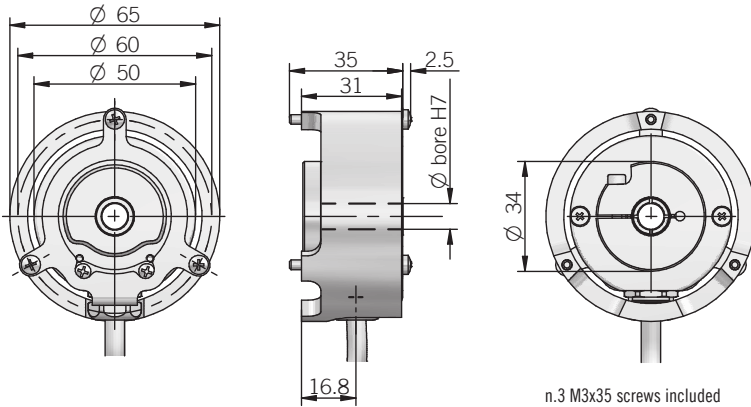
∅ 50 mm encoder recommended for motor feedback. Suitable for small size motors due to its compact dimensions.

- 3 channel encoder (A / B / Z) up to 1024 ppr
- Highly integrated optical ASIC
- Wide power supply up to +30 V DC
- Through hollow shaft up to 10 mm diameter
- Mounting by coupling flange or stator coupling (front or rear fixing)
- IP 65 as protection grade
- Wide temperature range -40 ... + 100°C

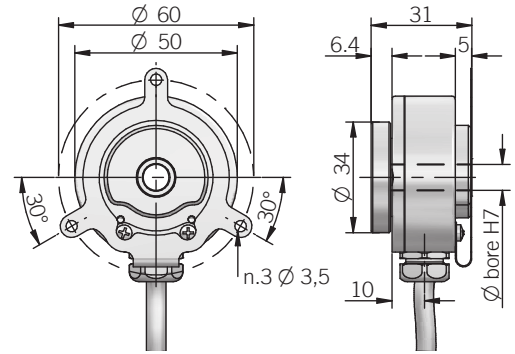


ORDERING CODE	EH	50FP	1024	S	5/30	P	6	X	6	PR	.XXX
SERIES incremental encoder series EH											
MODEL through hollow shaft with front fixing 50FA through hollow shaft with rear fixing 50FP											
RESOLUTION ppr from 100 to 1024 refer to the available pulses list											
ZERO PULSE without zero pulse S with zero pulse Z											
POWER SUPPLY 5 ... 30 V DC 5/30											
ELECTRICAL INTERFACE push-pull P line driver L power supply 5/30V - output RS-422 RS											
BORE DIAMETER mm 6 mm 8 (3/8") mm 9,52 10 mm 10											
ENCLOSURE RATING IP 65 X											
MAX ROTATION SPEED 6000 rpm 6											
OUTPUT TYPE radial cable (standard length 0,5 m) PR preferred cable lengths 1,5 / 2 / 3 / 5 / 10 m, to be added after OUTPUT TYPE (eg. PR5)											
VARIANT custom version XXX											

50 FA



50 FP



recommended mating shaft tolerance g6
dimensions in mm

n.3 M3x35 screws included

ELECTRICAL SPECIFICATIONS	
Resolution	from 100 to 1024 ppr
Power supply¹	4,5 ... 30 V DC (with reverse polarity protection)
Power draw without load	800 mW max
Max load current	20 mA / channel
Electrical interface²	push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or similar)
Max output frequency	105 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive
UL / CSA	certificate n. E212495

RESOLUTIONS
100 - 200 - 256 - 360 - 400 - 500 - 1000 - 1024 ppr
please directly contact our offices for other pulses, preferred resolutions in bold

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

MECHANICAL SPECIFICATIONS	
Bore diameter	∅ 6 / 8 / 9,52 (3/8") / 10 mm
Enclosure rating	IP 65 (IEC 60529)
Max rotation speed	6000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,5 x 10 ⁻⁶ kgm ² (12 x 10 ⁻⁶ lbf ²)
Starting torque (at +20°C / +68°F)	< 0,01 Nm (1,42 Ozin)
Bearing stage material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	EN-AW 2011 aluminum
Bearings	n.2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature^{3,4}	-40° ... +100 °C (-40° ... +212°F)
Storage temperature⁴	-40° ... +100 °C (-40° ... +212°F)
Weight	150 g (5,29 oz) mod.FP 200 g (7,05 oz) mod.FA

¹ as measured at the transducer without cable influences

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

³ measured on the transducer flange

⁴ condensation not allowed