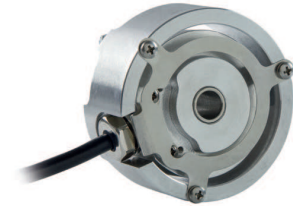


MAIN FEATURES

∅ 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



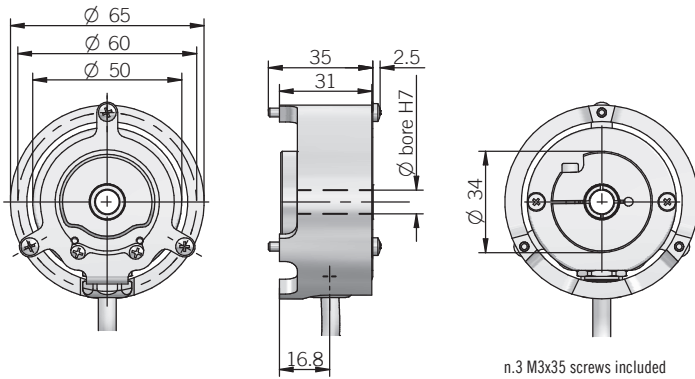
ORDERING CODE

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 see table for pulses availability	
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 9,52 mm (3/8") 9 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 2 / 3 / 5 / 10 m, to be added after OUTPUT TYPE (eg. PR5)	

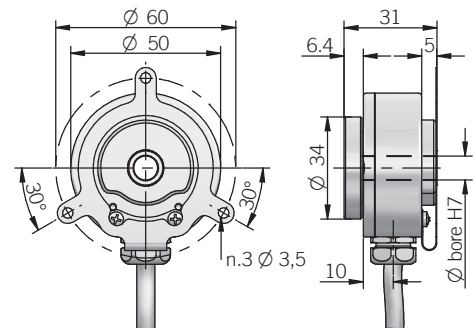
VARIANT
custom version **XXX**

50 FA



dimensions in mm

50 FP



ELECTRICAL SPECIFICATIONS

Resolution	from 100 to 1024 ppr
Power supply	4,5 ... 30 V DC (with reverse polarity protection)
Power draw without load	800 mW max
Max load current	20 mA / channel
Output type*	push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
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

* for further details please see OUTPUT LEVELS under TECHNICAL BASICS section

CONNECTIONS

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

MECHANICAL SPECIFICATIONS

Bore diameter	ø 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	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	-40° ... +100 °C (-40° ... +212°F)
Storage temperature	-40° ... +100 °C (-40° ... +212°F)
Fixing torque for collar clamping	1 Nm (142 Ozin) recommended
Weight	150 g (5,29 oz) mod.FP 200 g (7,05 oz) mod.FA

RESOLUTIONS

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