



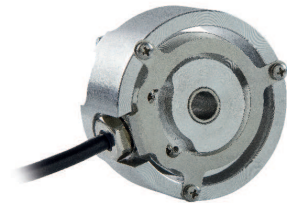
## EH 50 FA / FP

### THROUGH HOLLOW SHAFT INCREMENTAL ENCODER

#### MAIN FEATURES

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

- 3 channel encoder (A / B / Z) up to 1024 ppr
- Highly integrated optical ASIC
- Wide power supply up to +30 VDCC
- 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

<b>SERIES</b> incremental encoder series EH																			
<b>MODEL</b> through hollow shaft with front fixing 50FA through hollow shaft with rear fixing 50FP																			
<b>RESOLUTION</b> ppr from 100 to 1024 <i>see table for pulses availability</i>																			
<b>ZERO PULSE</b> without zero pulse S with zero pulse Z																			
<b>POWER SUPPLY</b> 5 ... 30 V DC 5/30																			
<b>ELECTRONIC INTERFACE</b> push-pull P universal line driver TTL/HTL L power supply 5/30V - output RS-422 RS																			
<b>BORE DIAMETER</b> mm 6 mm 8 9,52 mm (3/8") 9 10 mm 10																			
<b>ENCLOSURE RATING</b> IP 65 X																			
<b>MAX ROTATION SPEED</b> 6000 rpm 6																			
<b>OUTPUT TYPE</b> cable radial (standard length 0,5 m) PR																			
<b>VARIANT</b> custom version XXX																			



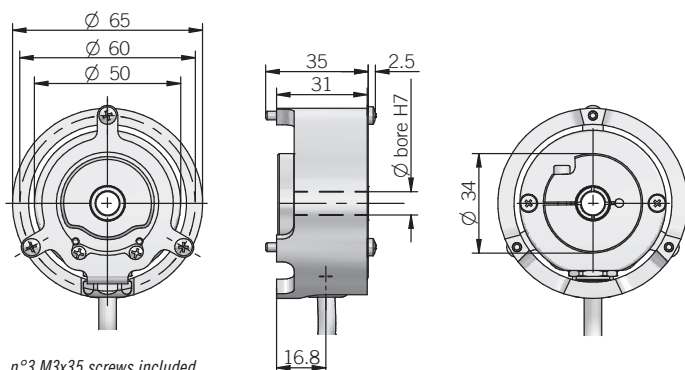
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## OPTICAL HOLLOW SHAFT INCREMENTAL ENCODERS | EH 50 FA / FP

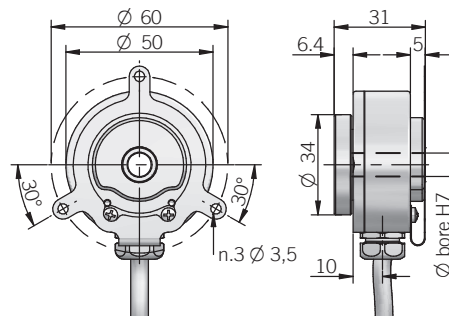
## EH 50 FA



n°3 M3x35 screws included

dimensions in mm

## EH 50 FP



## ELECTRICAL SPECIFICATIONS

<b>Resolution</b>	from 100 to 1024 ppr
<b>Power supply</b>	4,5 ... 30 V DC (with reverse polarity protection)
<b>Power draw without load</b>	600 mW
<b>Max load current</b>	20 mA / channel
<b>Output type*</b>	push-pull / line driver
<b>Max output frequency</b>	105 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

\*output levels according to power supply, for further details please see under Technical basics section

## CONNECTIONS

Function	Cable output Line driver	Cable output Push-pull
+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

## RESOLUTIONS

100 - 200 - 256 - **360** - 400 - 500 - **1000** - **1024** ppr

please directly contact our offices for other pulses, preferred resolutions in bold

## MECHANICAL SPECIFICATIONS

<b>Bore diameter</b>	∅ 6 / 8 / 9,52 (3/8") / 10 mm
<b>Enclosure rating</b>	IP 65 (IEC 60529)
<b>Max rotation speed</b>	6000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Moment of inertia</b>	0,5 x 10 <sup>-6</sup> kgm <sup>2</sup>
<b>Starting torque (at +20°C / +68°F)</b>	< 0,01 Nm
<b>Fixing torque for collar clamping</b>	1 Nm recommended
<b>Body material</b>	EN-AW 2011 aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Housing material</b>	EN-AW 2011 aluminum
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b>	-40° ... +100 °C (-40° ... +212°F)
<b>Storage temperature</b>	-40° ... +100 °C (-40° ... +212°F)
<b>Weight</b>	150 g (5,29 oz) mod.FP 200 g (7,05 oz) mod.FA



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