



## EH 17 - 30 M

### INCREMENTAL KIT ENCODER

#### MAIN FEATURES

Series of miniaturized encoders for integration on small size AC/DC motors, stepper motors or for limited size applications.

- 3 channel encoder (A / B / Z) up to 1024 ppr
- Power supply up to +30 V DC with several electrical interfaces available
- Up to 105 kHz output frequency
- No wear due to absence of bearings
- Easy assembly
- Compact size



#### ORDERING CODE

EH 30M 500 S 5/30 P 6 X 6 PR .XXX

**SERIES**  
incremental encoder series EH

**MODEL**  
kit encoder with flange 17M  
kit encoder 30M

**RESOLUTION**  
ppr from 50 to 1024  
refer to the available pulses list

**ZERO PULSE**  
without zero pulse S  
with zero pulse Z

**POWER SUPPLY**  
5 V DC 5  
5 ... 30 V DC 5/30

**ELECTRICAL INTERFACE**  
NPN open collector C  
push-pull P  
line driver L  
power supply 5/30V - output RS-422 RS

**BORE DIAMETER**  
mm 6  
(1/4") mm 6,35

**ENCLOSURE RATING**  
(mod. 17M) IP40 - (mod. 30M) IP 54 X

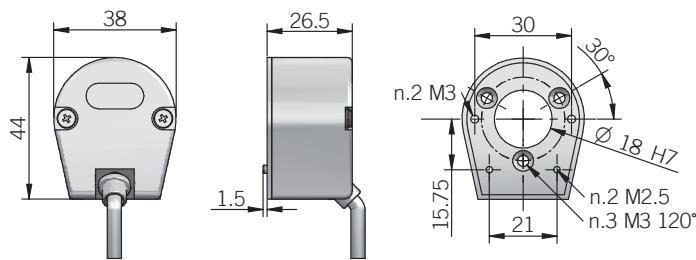
**MAX ROTATION SPEED**  
6000 rpm 6

**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)

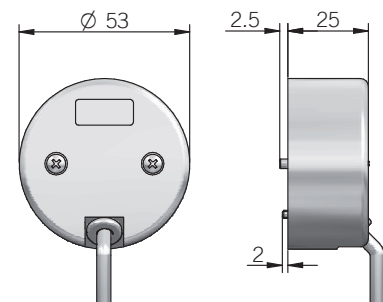
**VARIANT**  
custom version XXX

## OPTICAL HOLLOW SHAFT INCREMENTAL ENCODERS | EH 17 - 30 M

## 17 M

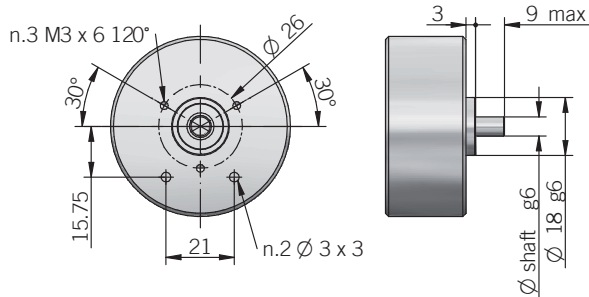


## 30 M

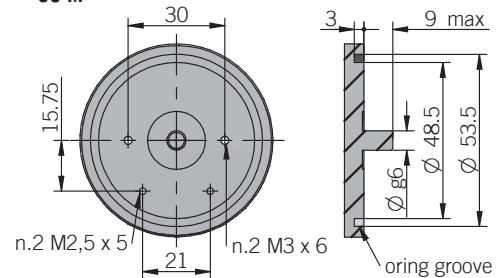


## RECOMMENDED INTERFACE FLANGE DESIGN

## 17 M



## 30 M



dimensions in mm

## ELECTRICAL SPECIFICATIONS

<b>Resolution</b>	from 50 to 1024 ppr
<b>Power supply<sup>1</sup></b>	5 = 4,5 ... 5,5 V DC 5/30 = 4,5 ... 30 V DC (reverse polarity protection)
<b>Current consumption without load</b>	50 mA (2 channels A / B) 100 mA (3 channels A / B / Z)
<b>Max load current</b>	C / P = 50 mA / channel L = 20 mA / channel
<b>Electrical interface<sup>2</sup></b>	NPN open collector (AEIC-7273, pull-up max +30 V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
<b>Max output frequency</b>	105 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	according to 2014/30/EU directive
<b>RoHS</b>	according to 2015/863/EU directive
<b>UL / CSA</b>	certificate n. E212495

## 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

<b>Bore diameter</b>	ø 6 / 6,35 (1/4") mm
<b>Enclosure rating</b>	mod. 17 IP 40 (IEC 60529) mod. 30 IP 54 (IEC 60529) when properly installed with oring kit (not supplied, please refer to the Accessories)
<b>Max rotation speed</b>	6000 rpm (limited by output frequency)
<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> (12 x 10 <sup>-6</sup> lbfm <sup>2</sup> )
<b>Flange material (mod. 17)</b>	aluminium
<b>Hub material</b>	EN-AW 2011 aluminium
<b>Cover material</b>	PA66 glass fiber reinforced
<b>Shaft radial play allowed</b>	± 0,04 mm
<b>Shaft axial play allowed</b>	± 0,1 mm
<b>Operating temperature<sup>3,4</sup></b>	-20° ... +60°C (-4° ... +140°F)
<b>Storage temperature<sup>4</sup></b>	-25° ... +70°C (-13° ... +158°F)
<b>Weight</b>	50 g (1,76 oz)

<sup>1</sup> as measured at the transducer without cable influences<sup>2</sup> for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section<sup>3</sup> measured on the transducer flange<sup>4</sup> condensation not allowed

## RESOLUTIONS

50\* - 100 - 200 - 250 - 256 - 360 - 400 - 500 - 512 - 1000 - 1024

\*available only without zero pulse

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



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