EH 17 - 30 MH
INCREMENTAL KIT ENCODER

MAIN FEATURES

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

- 3 channel encoder (A / B / Z) up to 5000 ppr
- Power supply up to +30 V DC with various electrical interfaces available
- Output frequency up to 500 kHz
- No wear due to absence of bearings
- Easy mounting
- Compact size

ORDERING CODE	EH	30MH	2000	S	5/30	P	6	X	X	PR	.XXX

SERIES
incremental encoder series EH

TYPE
high resolution kit encoder with flange 17MH
high resolution kit encoder 30MH

RESOLUTION
ppr 2000 / 2048 / 2500 / 4096 / 5000

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 5/30 V DC - output RS-422 RS

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

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

OPTION
to be reported X

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

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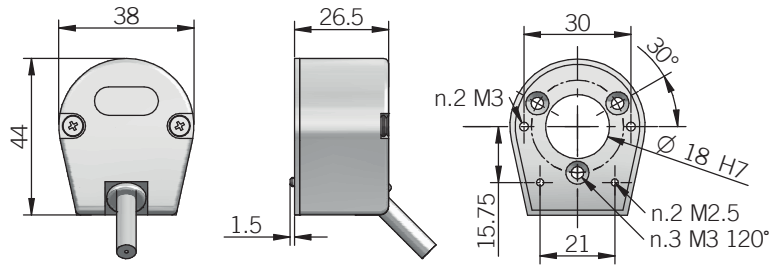
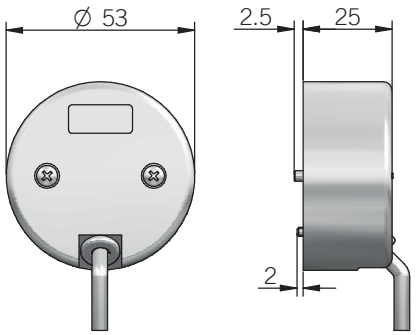
17MH

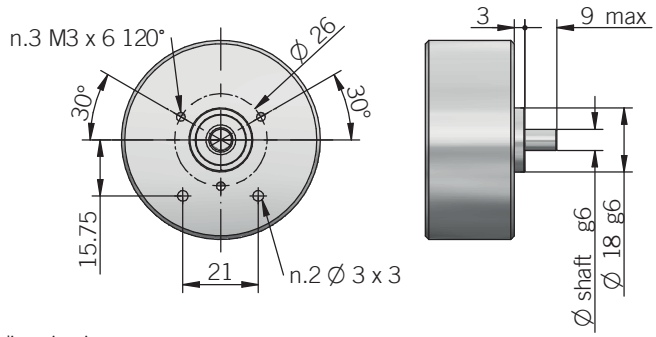


30MH

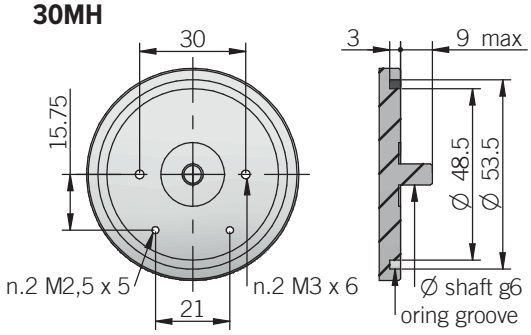


RECOMMENDED INTERFACE FLANGE DESIGN

17MH



30MH



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	2000 - 2048 - 2500 - 4096 - 5000 ppr
Power supply[1]	4,5 ... 30 V DC (reverse polarity protection)
Current consumption without load	60 mA max
Max load current	20 mA / channel
Electrical interface[2]	push-pull / line driver HTL (AEIC-7272 or similar) line driver RS-422 (AELT-5000 or similar)
Max output frequency	500 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**	289 years
Mission time (Tm)[3]	20 years
Diagnostic coverage (DC)[3]	0%
Cable type	shielded - fixed installation conductors section 0,22 mm^2 / 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

[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

MECHANICAL SPECIFICATIONS

Bore diameter	ø 6 / 6,35 (1/4") mm
Enclosure rating IEC 60529	mod. 17 IP 40 mod. 30 IP 40 or 54*
Max rotation speed	6000 rpm limited by output frequency
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} $lbft^2$)
Flange material (mod. 17)	aluminium
Hub material	aluminium
Cover material	PA66 / PA6 glass fiber reinforced
Shaft radial play allowed	± 0,04 mm
Shaft axial play allowed	± 0,1 mm
Operating temperature[4, 5]	-20° ... +85°C (-4° ... +185°F)
Storage temperature[5]	-25° ... +85°C (-13° ... +185°F)
Weight	50 g (1,76 oz)

*when properly installed with oring kit (not supplied, please refer to Accessories)

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

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