

**MAIN FEATURES**

∅ 88 mm through hollow shaft encoder designed for middle size asynchronous motors.

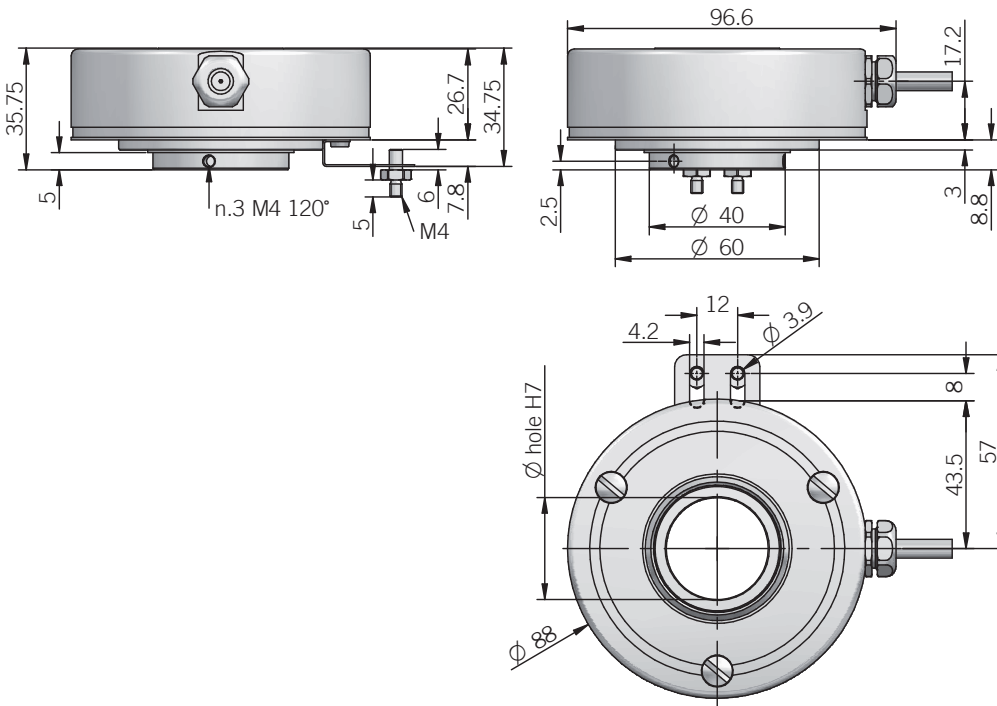
- 3 channel encoder (A / B / Z) up to 2500 ppr
- Power supply up to +28 V DC with several electrical interfaces available
- Up to 105 kHz output frequency
- Cable output, connectors available on cable end
- Sturdy mechanic
- 25 or 30 mm bore diameter, others on request
- Shaft fixing with grub screws



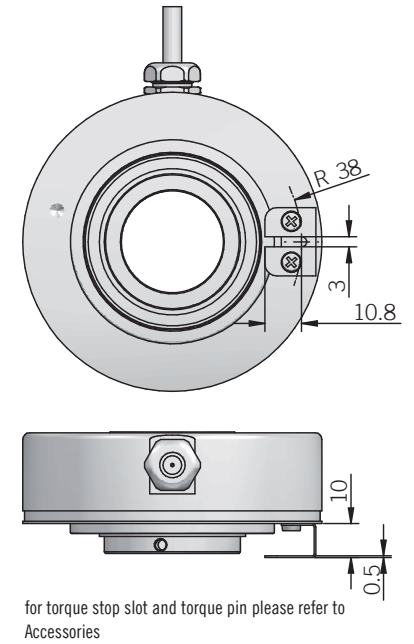
**ORDERING CODE**      **EH**   **88P**   **1024**   **S**   **5/28**   **P**   **30**   **S**   **3**   **PR**   **.XXX**

<b>SERIES</b> incremental encoder series <b>EH</b> incremental encoder series <b>EL</b>												
<b>MODEL</b> through hollow shaft with torque stop slot <b>88P</b>												
<b>RESOLUTION</b> (mod. EH) max ppr <b>2500</b> (mod. EL) max ppr <b>2048</b> refer to the available pulses list												
<b>ZERO PULSE</b> without zero pulse <b>S</b> with zero pulse <b>Z</b>												
<b>POWER SUPPLY</b> (with L electrical interface) 5 V DC <b>5</b> (with L electrical interface) 8 ... 24 V DC <b>8/24</b> 5 ... 28 V DC <b>5/28</b>												
<b>ELECTRICAL INTERFACE</b> NPN open collector <b>C</b> push-pull <b>P</b> line driver <b>L</b> (mod. EH) power supply 5/28V - output RS-422 <b>RS</b>												
<b>SHAFT DIAMETER</b> mm <b>25</b> mm <b>30</b> please directly contact our offices for other diameters												
<b>ENCLOSURE RATING</b> IP 65 <b>S</b>												
<b>MAX ROTATION SPEED</b> 3000 rpm <b>3</b>												
<b>OUTPUT TYPE</b> radial cable (standard length 0,5 m) <b>PR</b> preferred cable lengths 1,5 / 2 / 3 / 5 / 10 m, to be added after OUTPUT TYPE (eg. PR5)												
<b>VARIANT</b> custom version <b>XXX</b>												

88 P



OPTIONAL TORQUE STOP SLOT



for torque stop slot and torque pin please refer to Accessories

recommended mating shaft tolerance g6  
dimensions in mm

n.2 torque pins are included

ELECTRICAL SPECIFICATIONS	
<b>Resolution</b>	from 250 to 2500 ppr (EH series) from 2 to 2048 ppr (EL series)
<b>Power supply<sup>1</sup></b>	5 = 4,5 ... 5,5 V DC 5/28 = 4,75 ... 29,4 V DC 8/24 = 7,6 ... 25,2 (reverse polarity protection)
<b>Current consumption without load</b>	100 mA max
<b>Max load current</b>	C / P = 50 mA / channel L / RS = 20 mA / channel
<b>Electrical interface<sup>2</sup></b>	NPN open collector (pullup max +30V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or similar)
<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 2011/65/EU directive
<b>UL / CSA</b>	certificate n. E212495

MECHANICAL SPECIFICATIONS	
<b>Shaft diameter</b>	∅ 25 / 30 mm
<b>Enclosure rating</b>	IP 65 (IEC 60529)
<b>Max rotation speed</b>	3000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Moment of inertia</b>	45 x 10 <sup>-6</sup> kgm <sup>2</sup> (10,68 x 10 <sup>-4</sup> lbf <sup>2</sup> )
<b>Starting torque (at +20°C / +68°F)</b>	< 0,1 Nm (14,16 Ozin)
<b>Bearing stage 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>	n.2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature<sup>3,4</sup></b>	-10° ... +70°C (+14° ... +158°F)
<b>Storage temperature<sup>4</sup></b>	-25° ... +85°C (-13° ... +185°F)
<b>Weight</b>	350 g (12,35 oz)

CONNECTIONS		
Function	Cable C / 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

<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

EH SERIES RESOLUTIONS
250 - 256 - 500 - <b>512</b> - 700 - 720 - <b>1000</b> - <b>1024</b> - 1440 - 2500

EL SERIES RESOLUTIONS
<b>2</b> - 5 - 90 - 100 - 200 - <b>360</b> - 400 - 600 - 900 - <b>2000</b> - 2048
please directly contact our offices for other pulses, preferred resolutions in bold