

### MAIN FEATURES

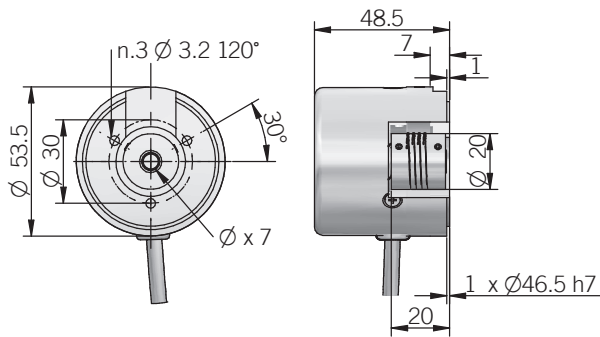
Encoder series for direct mounting on motors; integrated elastic coupling allows radial and axial shaft play.

- 3 channel encoder (A / B / Z) up to 1024 ppr
- Power supply up to +24 V DC with several electrical interfaces available
- Up to 150 kHz output frequency
- Cable output, connector available on cable end
- Up to 10 mm bore diameter
- Integrated elastic couplig



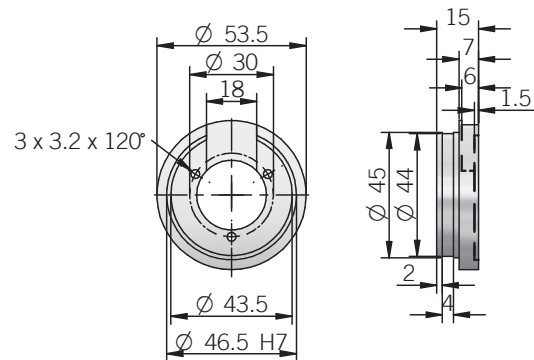
ORDERING CODE	EH	53A	500	S	8/24	P	8	X	6	PR.N	XXX
<b>SERIES</b> incremental encoder series <b>EH</b>											
<b>MODEL</b> adjustable flange model <b>53A</b> adjustable flange model <b>53B</b>											
<b>RESOLUTION</b> ppr from <b>50</b> to <b>1024</b> see table for pulses availability											
<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> 8 ... 24 V DC <b>8/24</b>											
<b>ELECTRICAL INTERFACE</b> NPN open collector <b>C</b> push-pull <b>P</b> line driver <b>L</b>											
<b>BORE DIAMETER</b> mm <b>6</b> mm <b>8</b> mm <b>10</b>											
<b>ENCLOSURE RATING</b> IP 54 <b>X</b>											
<b>MAX ROTATION SPEED</b> 6000 rpm <b>6</b>											
<b>OUTPUT TYPE</b> radial cable (standard length 0,5 m) <b>PR.N</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>											

53 A



dimensions in mm

53 B flange



**ELECTRICAL SPECIFICATIONS**

<b>Resolution</b>	from 100 to 1024 ppr
<b>Power supply</b>	5 = 4,5 ... 5,5 V DC 8/24 = 7,6 ... 25,2 V DC (reverse polarity protection)
<b>Current consumption without load</b>	100 mA max
<b>Max load current</b>	C / P = 50 mA / channel L = 20 mA / channel
<b>Output type*</b>	NPN open collector (pull-up max +30V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
<b>Max output frequency</b>	150 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

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

**CONNECTIONS**

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

**MECHANICAL SPECIFICATIONS**

<b>Bore diameter</b>	ø 6 / 8 / 10 mm
<b>Enclosure rating</b>	IP 54 (IEC 60529)
<b>Max rotation speed</b>	6000 rpm
<b>Max shaft load</b>	200 N axial / radial
<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>	1 x 10 <sup>-6</sup> kgm <sup>2</sup> (24 x 10 <sup>-6</sup> lbf <sup>2</sup> )
<b>Starting torque (at +20°C / +68°F)</b>	< 0,01 Nm (1,42 Ozin)
<b>Bearing stage material</b>	EN-AW 2011 aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Housing material</b>	PA66 glass fiber reinforced
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b>	-10° ... +60°C (+14° ... +140°F)
<b>Storage temperature</b>	-25° ... +70°C (-13° ... +158°F)
<b>Weight</b>	150 g (5,29 oz)

**RESOLUTIONS**

50 - 100 - 120 - 125 - 128 - 150 - 180 - 200 - 250 - 256 - 300 - 360 - 400 - 500 - 512 - 600 - 720 - 1000 - 1024

please directly contact our offices for other pulses