

MAIN FEATURES

The EA 120 is an absolute encoder with through hollow shaft suitable for textile machine, elevator motors and generally all the applications where big diameter shaft is required.

- Up to 13 bit
- Through hollow shaft from 30 to 50.8 mm (2")



ORDERING CODE

EA 120 P 2048 B 5 S X X 50 X 3 PCR . XXX

SERIES
singleturn absolute encoder **EA**

SIZE
mm **120**

TYPE
through hollow shaft with spring
and front fixing **P**

RESOLUTION
(powers of 2) ppr from **2** to **8192**
(multiples and submultiples of 360)
ppr from **90** to **3600**
(multiples and submultiples of 1000)
ppr from **250** to **4000**

N.B.: please directly contact our offices for pulses availability

CODE
Binary **B**
Gray **G**

POWER SUPPLY
5 V DC **5**
8 ... 28 V DC **8/28**

OUTPUT TYPE
SSI **S**

VARIANT
XXX custom version

OUTPUT TYPE
PCR radial cable output with cable gland
(standard length 0.5 m) (12-core)
HAR radial H connector output (12-pin)
MCR radial M connector output (7-pin)
M12R radial M12 connector output (8-pin)

MAX ROTATION SPEED
3 3000 rpm

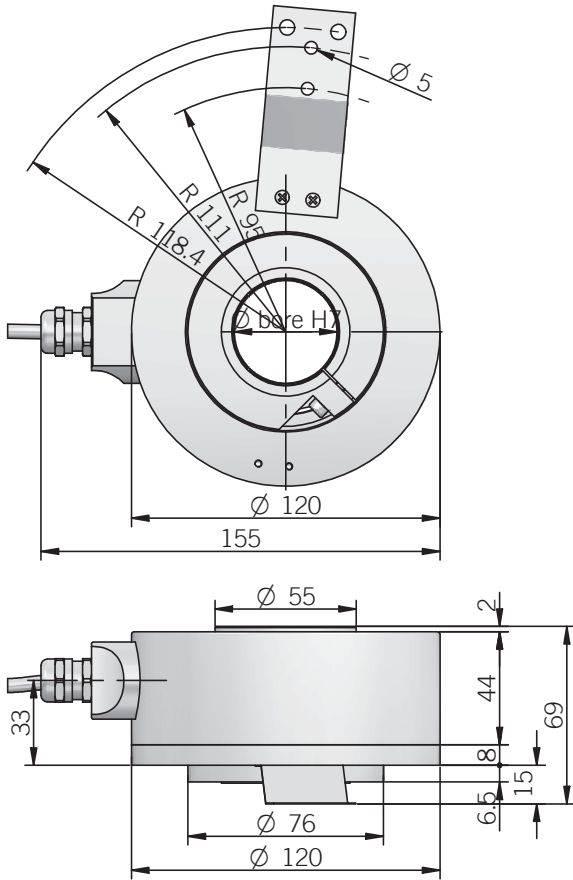
ENCLOSURE RATING
X IP 54

SHAFT DIAMETER
30 mm
40 mm
50 mm
50.8 mm (2")

OPTION
X unused option
ZE code reset

LOGIC
X unused option

EA 120 P



Electrical specifications

Resolution	up to 8192 ppr
Power supply	5 V DC \pm 10% 8 ... 28 V DC \pm 5%
Current consumption without load	200 mA max
Max load current	20 mA for channel
Electronic interface	RS422 SSI
Auxiliary inputs (U/D - Reset)	active high (+Vdc) connect to 0V if not used / Reset t_{min} 150 ms
Max output frequency	1 MHz SSI
Monostable time (SSI)	16 μ s
Accuracy	\pm 1/2 LSB
Counting direction	decreasing clockwise (shaft view)
Start-up time	150 ms
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Mechanical specifications

Shaft diameter	30 / 40 / 50 / 50.8 (2") mm
Enclosure rating	IP 54
Max rotation speed	3000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibrations	10 G, 10÷2000 Hz (IEC 60068-2-6)
Bearings	n° 2 ball bearings
Bearings life	10 ⁹ revolutions
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	EN-AW 2011 aluminum
Operating temperature	0° ... +60 °C
Storage temperature	-15° ... +70 °C
Weight	1000 g

Output connections for SSI encoder

Funzione	12 wire cable colours	Pin "M07MP"	Pin "M12MP"	Pin "H12"
+ Vdc	red	G	8	8
0 Volt	black	F	5	1
U / D	red-blue	E	7	5
data +	green	C	3	2
data -	brown	D	2	10
clock +	yellow	A	4	3
clock -	orange	B	6	11
RESET	white	/	1	4