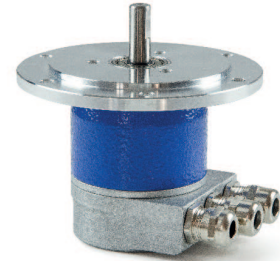


### MAIN FEATURES

Industry standard singleturn absolute encoder for factory automation applications.

- Optical sensor technology (OptoASIC)
- Resolution up to 13 bit (8192 ppr)
- Power supply up to +28 VDC with Profibus DP as electronic interface
- Cable gland or M12 connector output
- Solid shaft diameter up to 11 mm
- Mounting by synchronous or REO-444 flange



### ORDERING CODE

EA 90A 4096 B 12/28 FXX 10 X 6 P3R .XXX

**SERIES**  
singleturn absolute encoder EA

**MODEL**  
synchronous flange  $\varnothing$  40 mm 90A  
REO-444 flange 115A

**RESOLUTION**  
ppr max 4096 / 8192

**CODE TYPE**  
binary B

**POWER SUPPLY**  
12 ... 28 V DC 12/28

**ELECTRONIC INTERFACE**  
PROFIBUS DP V0 CLASS 2 FXX

**SHAFT DIAMETER**  
(mod. 90) (9,52mm 3/8") mm 9  
mm 10  
(mod. 115) mm 11

**ENCLOSURE RATING**  
IP 54 X  
(mod. 90) IP 66 S

**MAX ROTATION SPEED**  
(IP 66) 3000 rpm 3  
(IP 54) 6000 rpm 6

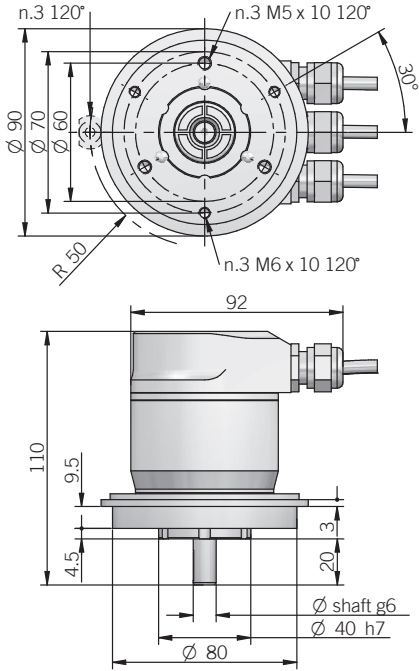
**OUTPUT TYPE**  
terminal box - radial cable glands P3R  
radial M12 connectors M12R

*female connector included, without female please add 162 as variant code*

**VARIANT**  
custom version XXX

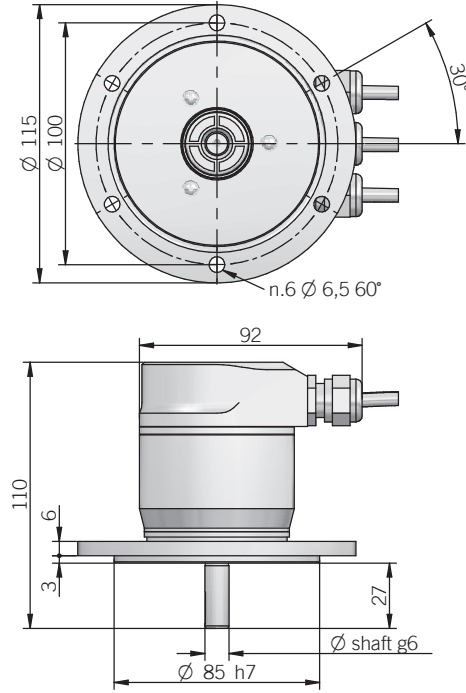
**EA 90 A**

fixing clamps not included



dimensions in mm

**EA 115 A**



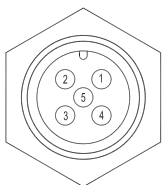
**ELECTRICAL SPECIFICATIONS**

<b>Resolution</b>	2 ... 4096 / 2 ... 8192 ppr <i>programmable during commissioning</i>
<b>Power supply</b>	12/28 = 11,4 ... 29,4 V DC
<b>Current consumption without load</b>	300 mA
<b>Output type</b>	RS 485 galvanically isolated
<b>Max bus frequency</b>	12 Mbaud
<b>Diagnostic features</b>	frequency warning position warning / alarm <i>please refer to installation guide for more informations</i>
<b>Max frequency</b>	25 kHz LSB
<b>Accuracy</b>	± 1/2 LSB
<b>Counting direction</b>	programmable during commissioning
<b>Start-up time</b>	500 ms
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

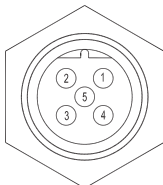
**CONNECTIONS**

Function	S3 connector 5-pin (power supply)	S3 connector 5-pin (line out)	S3 connector 5-pin (line in)
+ Vdc	2		
0 Volt	4		
signal A (out)		2	
signal B (out)		4	
signal A (in)			2
signal A (in)			4

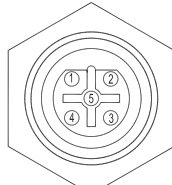
S3 connector (M12 5 pins A coded) power supply view solder side FV



S3 connector (M12 5 pins B coded) line out view solder side FV



S3 connector (M12 5 pins B coded) line in view solder side MV



**MECHANICAL SPECIFICATIONS**

<b>Shaft diameter</b>	ø 9,52 (3/8") / 10 / 11 mm
<b>Enclosure rating</b>	X = IP 54 (IEC 60529) S = IP 66 (IEC 60529)
<b>Max rotation speed</b>	3000 rpm (IP 66) 6000 rpm (IP 54)
<b>Max shaft load</b>	100 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>	1,5 x 10 <sup>-6</sup> kgm <sup>2</sup>
<b>Starting torque (at +20°C / +68°F)</b>	< 0,02 Nm (IP 54) < 0,06 Nm (IP 66)
<b>Body material</b>	EN-AW 2011 aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Housing material</b>	painted aluminium
<b>Flange material</b>	EN-AW 2011 aluminum
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b>	0° ... +60°C (+32° ... +140°F)
<b>Storage temperature</b>	-15° ... +70°C (+5° ... +158°F)
<b>Weight</b>	750 g (26,46 oz)

**ACCESSORIES**

set n.3 fixing clamps for model 90 A  
P/N 94080001

