



EA 90 A - 115 A PROFIBUS

SOLID SHAFT SINGLETURN ABSOLUTE ENCODER

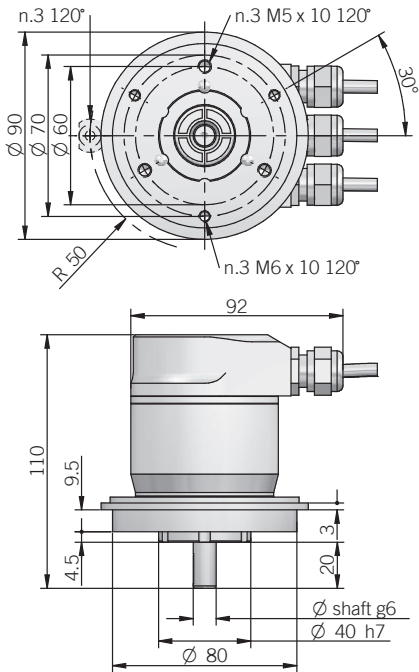


Industry standard singleturn absolute encoder for factory automation applications.

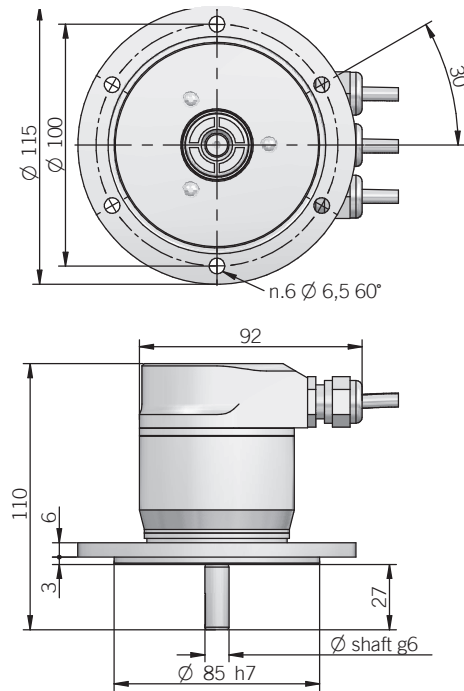
- Optical sensor technology (OptoASIC)
- Resolution up to 13 bit (8192 ppr)
- Power supply up to +28 VDC with Profibus DP as electronic interface
- Cable gland or M12 connector output
- Solid shaft diameter up to 11 mm
- Mounting by synchronous or REO-444 flange

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 REO-444 flange		90A 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 (mod. 115) mm							9 10 11				
ENCLOSURE RATING IP (mod. 90) IP							54 X 66 S				
MAX ROTATION SPEED (IP 66) 3000 rpm (IP 54) 6000 rpm							3 6				
OUTPUT TYPE terminal box - radial cable glands radial M12 connectors										P3R M12R	
<i>female connector included, without female please add 162 as variant code</i>											VARIANT custom version
											XXX

EA 90 A



EA 115 A



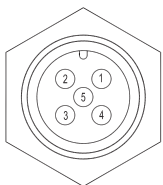
ELECTRICAL SPECIFICATIONS

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

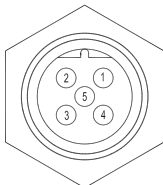
CONNECTIONS

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

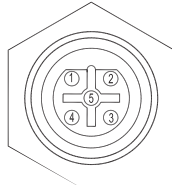
S3 connector
(M12 5 pins A coded)
power supply
view solder side FV



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

Shaft diameter	$\varnothing 9,52$ (3/8") / 10 / 11 mm
Enclosure rating	X = IP 54 (IEC 60529) S = IP 66 (IEC 60529)
Max rotation speed	3000 rpm (IP 66) 6000 rpm (IP 54)
Max shaft load	100 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	$1,5 \times 10^{-6}$ kgm ²
Starting torque (at +20°C / +68°F)	< 0,02 Nm (IP 54) < 0,06 Nm (IP 66)
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	painted aluminium
Flange material	EN-AW 2011 aluminum
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	0° ... +60°C (+32° ... +140°F)
Storage temperature	-15° ... +70°C (+5° ... +158°F)
Weight	750 g (26,46 oz)

ACCESSORIES

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

