Eltra®

UNI EN ISO 9001

EH-EL90A-R / 115A-R
INCREMENTAL ENCODERS

Incremental encoders

Encoder series for grave environments with excellent mechanical resistance.
The 90 model has the possibility of mechanical assembly using flanges or servo-fastener; the 115 model has the compatible attachment with tachimeter generator type REO-444

- Resolutions up to 10000 imp/turn with zero for EL series and up to 1024 imp/turn for the EH series
- Different electronic configurations available with power supply up to 28 Vdc for EL series and up to 24 Vdc for EH series
- Max output frequency up to 300 KHz for the EL series and up to 100KHz for the EH series
- Output : cable and connector
- Different flanges available
- Speed rotation up to 6000 rpm
- Protection up to IP67

Ordering codes

In case of particular Customer variant seperate with a full stop

EL 90 A 1000 Z 5/28 N 1000 Z 5/28 N 10 X 6 M R . XXX

EL = incremental encoder EL series
EH = incremental encoder EH series

90 = body dimention
115 = body dimention

A = mod.EH-EL90A / 115A
R = mod.EH-EL90R / 115R with centrifugal relays
Type of flanges

from **1** to **10000** imp./turn EL series
from **40** to **1024** imp./turn EH series **Resolutions**
N.B:. For impulse availability contact directly our offices

S = without zero impulse
Z = with zero impulse
Zero impulse

5 ÷ 28 = EL series power supply
5 / 8 ÷ 24 = EH series power supply
Encoder power supply (Vdc)
N.B.: LINE DRIVER available only with 5 Vdc or 8 ÷ 24 Vdc power supply

N = NPN
C = NPN OPEN COLLECTOR
P = PUSH PULL
L = LINE DRIVER
Electronic output configuration
N.B.: For the optionals on output configurations see the output incremental connections card

Particular Customer variants indicated by a progressive numberfrom 001 to 999

R = radial
A = axial

P = standard output cable 1.5 m
M = connector MS3106E 16S-1S or 18-1S
J = connector JMSP 1607 F or 1610 F

3 = 3000 with IP66 / IP67
6 = 6000
R.P.M.

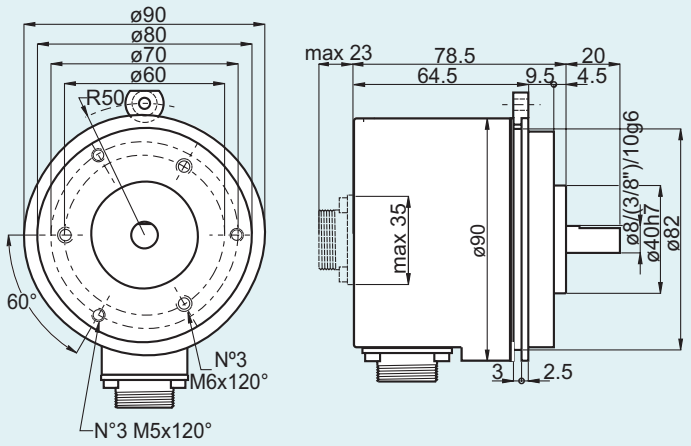
X = standard IP64 EH-EL90 / 115
S = optional IP66 / IP67 EH-EL90
Protection

8 = ø 8 mm	EH-EL90	**Shaft diameter**
9 = ø 9.52 mm (3/8")	EH-EL90	
10 = ø 10 mm	EH-EL90 / 115	
11 = ø 11 mm	EH-EL115	

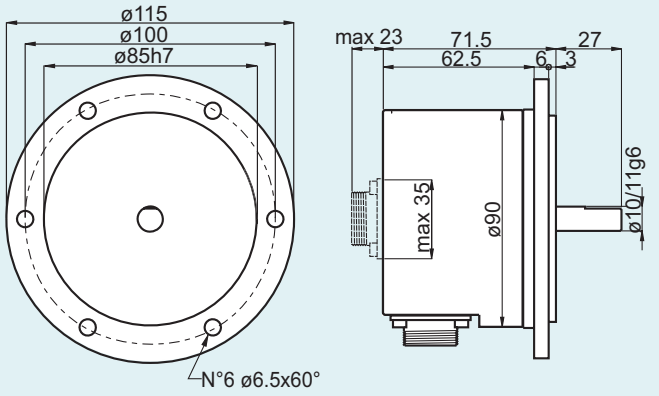
Electronic output configuration
Encoder power supplyr (Vdc)
Zero Impulse
Resolutions

N.B.: TO BE INDICATED ONLY IN THE MODELS OF DOUBLE ELECTRONICS (For further information contact our offices)

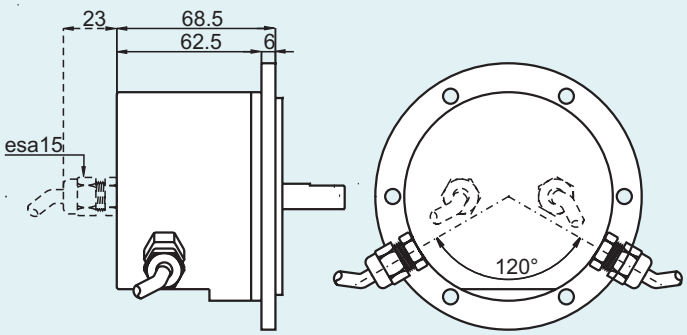
EH-EL90A



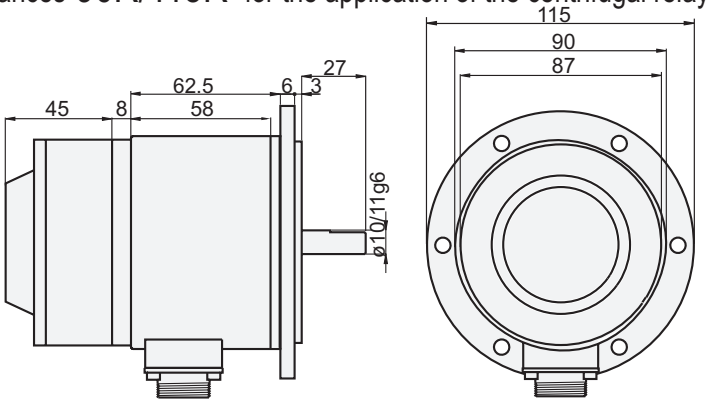
EH-EL115A



90A/115A with double electronics



Clearances 90R/115R for the application of the centrifugal relay



Electronic Characteristics EL series

Resolutions	From 1 to 10000 impulses / turn
Power supply	5 ÷ 28 Vdc N.B.: LINE DRIVER only with power supply 5 / 8÷24 Vdc
Current consumption without load	80 mA
Max output curren	50 mA per channel 20 mA per channel with LINE DRIVER
Electronic output configuration	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Max output frequency	Max 300 KHz **F=** $\frac{\text{RPM x Resolution}}{60}$

Electronic Characteristics EH series

Resolutions	From 40 to 1024 impulses / turn
Power supply	5 Vdc / 8 ÷ 24 Vdc N.B.: LINE DRIVER sonly with power supply 5 / 8÷24 Vdc
Current consumption without load	50 mA bidirectional 100 mA bidirectional with zero
Max commutable current	50 mA per channel 20 mA per channel withLINE DRIVER
Electronic output configuration	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Max output frequency	Max 100 KHz **F=** $\frac{\text{RPM x Resolution}}{60}$

Mechanical Characteristics

Shaft diameter (mm)	ø8 /ø9.52(3/8") /ø 10g6 EH-EL90 ø10/ø11g6 EH-EL115
Protection	IP64 standard EH-EL90 / 115 IP66 / IP67 optional EH-EL90
R.P.M. Max	6000 continuous 3000 with IP66 / IP67
Max shaft load	200 N (20 Kp) axial 200 N (20Kp) radial
Shock	50 G per 11 msec (with flexible disc) 20 G per 11 msec (with glass disc)
Vibrations	10G 10 ÷ 2000 Hz
Bearings Life	10^9 revolutions
Bearings	n°2 Ball bearings
Shaft material	Stainless steel AISI303
Body material	Aluminium-UNI 9002/5
Cover Material	Painted Aluminium
Operating temperature	0° ÷ +60°C
Storage temperature	-25° ÷ +70°C
Weight	750 g

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