



EH-EL53A / B INCREMENTAL ENCODERS

Incremental encoders

A series of encoders for the direct assembly on motors; the incorporated elastic joint allows the compensation of radial and axial slack.

- Resolutions up to 10000 imp/turn with zero for the EL series and up to 1024 imp/turn for the EH series with zero
- Different electronic configurations available with power supply up to 28 Vdc for the EL series and up to 24 Vdc for the 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 IP64



Ordering codes

EL 53 A 1000 Z 5/28 N 6 X 6 M R . XXX

In case of particular Customer variant separate with a full stop

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

53 = body dimension

A = mod.EH-EL53A
B = mod.EH-EL53B
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 = power supply for the EL series
5 / 8 ÷ 24 = power supply for the EH series
Encoder power supply (Vdc)
N.B.: LINE DRIVER available only with 5 Vdc or 8 ÷ 24 Vdc power supply

XXX = Special Customer variants indicated by a progressive number from 001 to 999

R = radial
A = axial

P = standard output cable 0.5 m series EH53
standard output cable 1.5 m series EL53
M = connector MS3106E 16S-1S or 18-1S
J = connector JMSP 1607 F or 1610 F

6 = 6000 R.P.M.

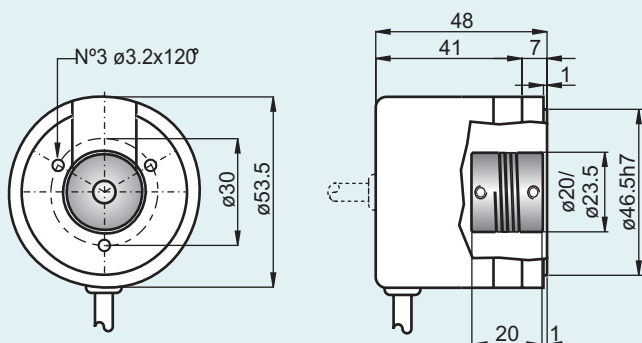
X = standard IP54 EH53
standard IP64 EL53
Protection

6 = ø 6 mm
8 = ø 8 mm
10 = ø 10 mm
Shaft diameter

N = NPN
C = NPN OPEN COLLECTOR
P = PUSH PULL
L = LINE DRIVER (only the EL series)
Electronic output configuration

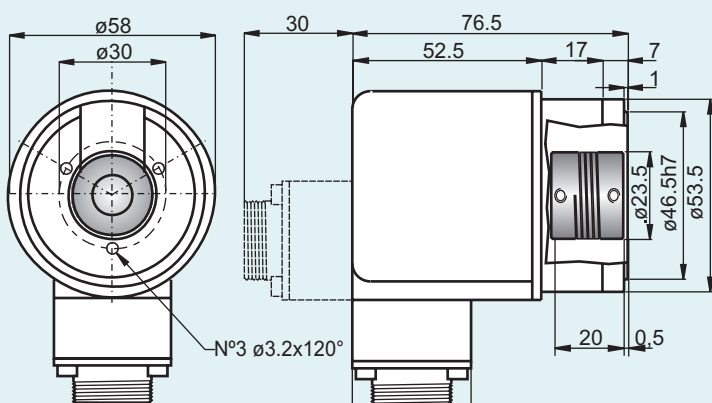
N.B.: For the optionals on the output configurations see the output incremental connections card

EH53A



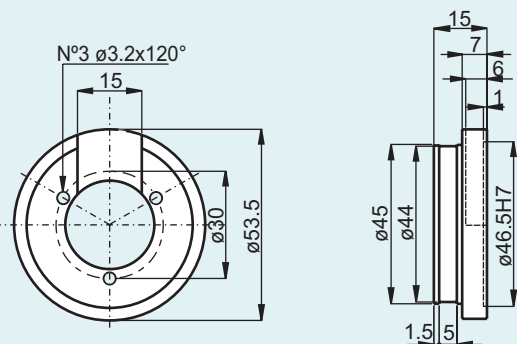
STANDARD JOINTS
G20A6
G23A6/8
G23A6/10

EL53A



STANDARD JOINTS
G23A10
G23A8/10
G23A6/10

EH-EL53B Flange version



Electronic Characteristics EL Series

Resolutions	From 1 to 10000 impulses / turn
Power supply	5 + 28 Vdc N.B.: LINE DRIVER only of power supply 5 / 8 + 24 Vdc
Current consumption without load	80 mA
Max output current	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 $F = \frac{\text{RPM} \times \text{Resolution}}{60}$

Electronic Characteristics EH Series

Resolutions	From 40 to 1024 impulses /turn
Power supply	5 Vdc / 8 + 24 Vdc N.B.: LINE DRIVER only of 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 with LINE DRIVER
Electronic output configuration	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Max output frequency	Max 100 KHz $F = \frac{\text{RPM} \times \text{Resolution}}{60}$

Mechanical Characteristics

Shaft diameter (mm.)	ø6 / 8 / 10 h7
Protection	EH53 : IP54 standard EL53 : IP64 standard
R.P.M. Max	6000 continuous
Shock	50 G for 11 msec (with flexible disc) 20 G for 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	Alluminium D11S - UNI 9002/5
Cover material	Special plastic with glass fibre
Operating temperature	0° + +60°C
Storage temperature	-25° + +70°C
Weight	EH53 : 150 g EL53 : 350 g

