

Main characteristics

Encoder series to be mounted directly on motors.
Our integrated elastic coupling allows radial and axial slack compensation

- Resolution up to 10.000 ppr with zero for EL series, up to 1024 ppr for EH series.
- Different output types available.
- Up to 28 Vdc input voltage for EL series and up to 24 Vdc for EHseries.
- Up to 300 kHz frequency response for EL series and up to 100 kHz for EH series
- Output cable with connector
- Several flanges available
- Up to 6.000 rpm speed rotation



Ordering code

Full stop to separate special versions.

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

Incremental encoder series **EL**
Incremental encoder series **EH**

body dimension **53**

mod.EH-EL53A **A**
mod.EH-EL53B **B**

Resolutions

PPR: series EL from 1 to 10000
PPR: series EH from 40 to 1024
Please, directly contact our offices for pulses availability

Zero pulse

without zero pulse **S**
with zero pulse **Z**

Input voltage

input voltage series EL **5 ÷ 28**
input voltage series EH **5 / 8 ÷ 24**
LINE DRIVER available only with input voltage 5 Vdc: 8 ÷ 24 Vdc

R radial
A axial(only EL 53)

Special version
code numbered
from 001 to 999

P cable output (standard length 1,5 m series EL)
cable output (standard length 0,5 m series EH)
M connector MS3106E 16S-1S or 18-1S only EL53
J connector JMSP 1607 or 1610 only EL53

R.P.M.

3 3000
6 6000

Enclosure rating

X standard IP64 EH53
standard IP64 EL53

Bore diameter

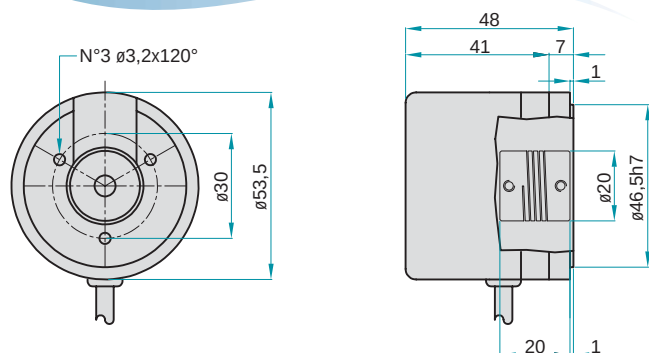
6 ø 6 H7 mm
8 ø 8 H7 mm
10 ø 10 H7 mm

Output types

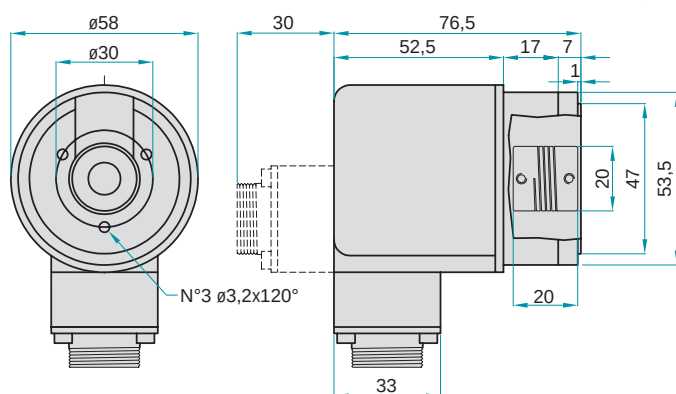
N NPN
C NPN OPEN COLLECTOR
P PUSH PULL
L LINE DRIVER

For optionals about output types please refer to incremental outputs section

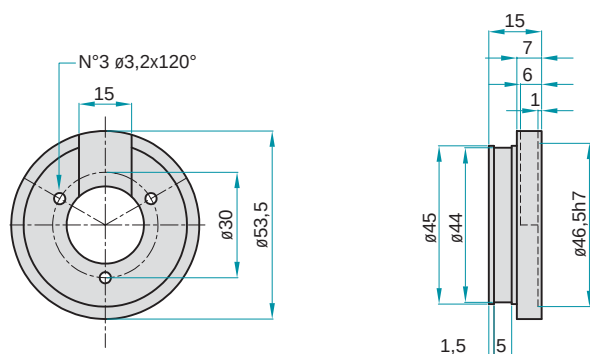
EH 53 A



EL 53 A



Flange version EH - EL 53 B



EL series electrical specifications

Resolution	from 1 to 10000 PPR
Input voltage	5 ÷ 28 Vdc LINE DRIVER only available with input voltage 5/8 ÷ 24 Vdc
Input current with no output load	100 mA MAX
Source and sink current	50 mA for channel 20 mA for channel with LINE DRIVER
Output types	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Output frequency	100 KHz Max
Frequency response	$F = \frac{\text{RPM} \times \text{Resolution}}{60}$

EH series electrical specifications

Resolution	from 40 a 1024 PPR
Input voltage	5 ÷ 28 Vdc
Input current with no output load	100 mA Max
Source and sink current	50 mA for channel 20 mA for channel with LINE DRIVER
Output types	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Output frequency	100 KHz Max
Frequency response	$F = \frac{\text{RPM} \times \text{Resolution}}{60}$

Mechanical specifications

Bore diameter	Ø6 / 8 / 10 mm h7
Enclosure rating	EH53 : IP54 standard EL53 : IP64 standard
Shaft speed	3000 RPM 6000 RPM
Shock	50 G for 11 msec (with plastic 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	Aluminium D11S - UNI 900/5
Housing material	PA 66 reinforced with fiber glass
Operating temperature	0° ÷ +60°C
Storage temperature	-25° ÷ +70°C
Weight	EH 53: IP54 - 150 g circa EL 53: IP64 - 350 g circa