

INCREMENTAL ENCODER + INCREMENTAL PHASES

Incremental encoders for motor feedback

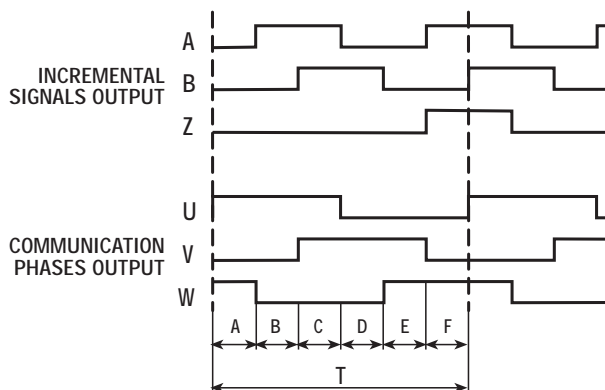
Ø36 encoder series used in feedback systems on AC servomotor. It integrates a traditional incremental encoder and the optical generation of "Hall effect phases".

Main characteristics are:

- Interchangeability with 15 size resolver that allow to save time and money because it is sufficient to have only one predisposition for the retomotor.
- Easy mechanical assembly
- Contained dimensions
- Wide resolution range available



Signal configuration



POLES	A / B / C / D / E / F	T
4	30° ± 1,5°	180°
6	20° ± 1,5°	120°
8	15° ± 1,5°	90°

Electrical specifications

Resolution	from 1 to 1024 PPR
Source and sink current	15 mA for channel with LINE DRIVER 30 mA for channel with other electronics
Output frequency	150 KHz Max
Frequency response	$F = \frac{RPM \times Resolution}{60}$

EF series electrical specifications

Input voltage	5Vdc ± 5%
Output type for incremental signal	LINE DRIVER
Output types for Hall phases	LINE DRIVER/ NPN OPEN COLLECTOR
Input current with no output load	150 mA

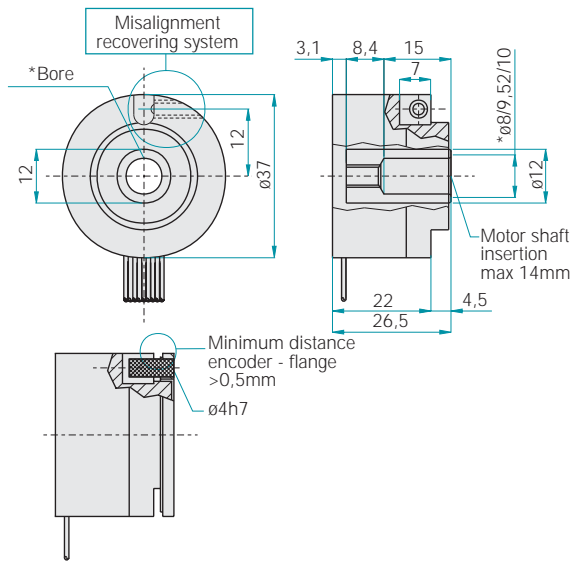
Mechanical specifications

Bore diameter	ø8 / ø9.52 / ø10 mm H7
Enclosure rating	IP40
Shaft speed	6000 R.P.M.
Shock	50 G for 11 msec
Vibrations	5G 10 ÷ 500 Hz
Bearings	n° 2 ball bearings
Shaft material	Stainless steel
Body material	Aluminium
Housing material	Aluminium
Operating temperature	-10° ÷ +85°C
Storage temperature	-25° ÷ +85°C
Weight	50 g
Accessories	Flange for mounting on motors (size 15 "Resolver")

Wire colours

COLOR	SIGNAL	EF
Red	+ Vdc	•
Black	0 Volt	•
Green	A	•
Yellow	B	•
Blue	Z	•
Brown	A	•
Orange	B	•
White	Z	•
Gray	U	•
Violet	V	•
Gray / Pink	W	•
Red / Blue	U	•
White / Green	V	•
Brown / Green	W	•

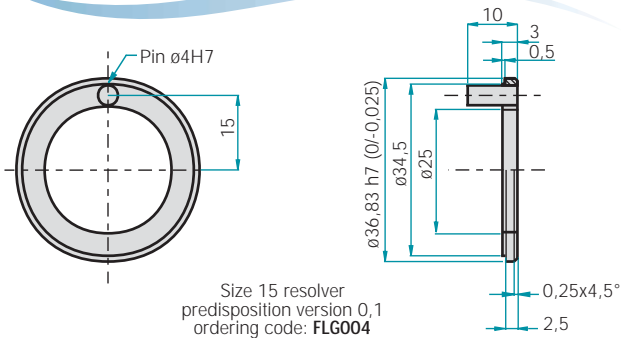
EH-EL 115 A



N.B.: minimum distance encoder - flange > 0.5 mm



ACCESSORIES Flange for motors fixing



HOW TO MOUNT IT

- 1) Insert the flange (A) on the motor
- 2) Tighten the appropriate servo fasteners (B) without blocking them
- 3) Insert the encoder on the motor shaft with the system of the misalignment recuperation corresponding to the pegs (C).
- 4) Block it using the screw of the encoder on the motor axle.
- 5) Turn for phasing.
- 6) Finally, fix the servo fasteners (B).
- 7) Verify the correct functioning of the disalignment recovery system.

Ordering code

Full stop to separate special versions.

EF	36	K	4	L	512	Z	5	L	8	X	3	PR	.	XXX
Incremental encoder + commutation phases	body dimension	blind hole with hind fixing	N° poles of the motor	Electronic for commutation phase	Resolution	Zero pulse	Input voltage	Enclosure rating	Bore diameter	Output types for mod. EF	R.P.M.	cable output (standard length 0.3 m)	Special version code numbered from 001 to 999	
EF	36	K	n° 4 poles: 4 n° 6 poles: 8 n° 8 poles: 6	NPN OPEN COLLECTOR: C LINE DRIVER: L	PPR: from 1 to 1024 <i>Please, directly contact our offices for pulses availability</i>	without zero pulse: S with zero pulse: Z	5	X IP40	8 ø 8H7 mm 9 ø 9,52H7 mm 10 ø 10H7 mm	LINE DRIVER <i>For optionals about output types please refer to incremental outputs section</i>	3 3000 6 6000			

