

Main characteristics

Ø80 encoder series used to feedback systems on AC servomotor. They integrate a traditional incremental encoder and the optic generation of "Hall effect phases".

Main characteristics are:

- Contained dimensions
- Wide resolution range available
- High temperature resistance
- Easy mounting

EH series

Basic version with incremental outputs
Several output types available

EF series

Optic engendering of the " commutation phases" integrated to the basic version

Signals transmission by parallel connection



Electrical specifications

Resolution	from 200 to 2048 not electronically multiplied
Source and sink current	15 mA for channel with LINE DRIVER 15 mA for channel with other electronics
Output frequency	150 KHz Max
Frequency response	$F = \frac{RPM \times Resolution}{60}$

EH series electrical specifications

Input voltage	5 / 8 ÷ 24 Vdc
Output types	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Input current with no output load	100 mA Max

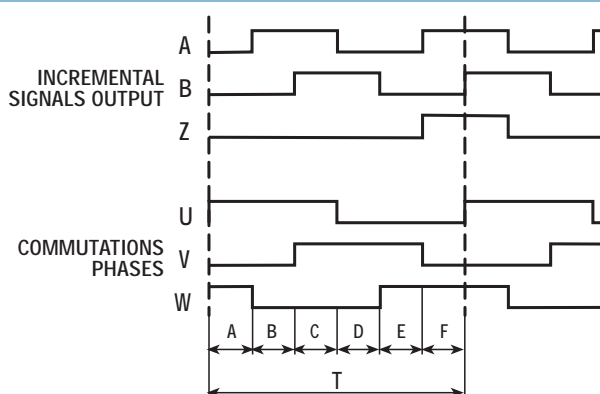
EF series electrical specifications

Input voltage	5 Vdc ± 5%
Output types for incremental phases	LINE DRIVER
Output types	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
Input current with no output load	200 mA Max

Mechanical specifications

Through hole diameter EH / EF 80P (mm)	ø8 / ø10 / ø14 / 15 mm H7
Blind hole diameter EH / EF 80C (mm)	ø8FG6 / ø10G6 ø14 / ø15
Enclosure rating	IP54 Standard
Shaft speed	3000 RPM
Vibrations	10G 10 ÷ 2000 Hz
Bearings life	10 ⁹ revolutions
Bearings	n° 2 ball bearings
Shaft material	Aluminium
Housing material	PA 66 reinforced with fiber glass
Operating temperature	-10° + 85°C
Storage temperature	-25° + 85°C
Weight	250 g

Signal configuration

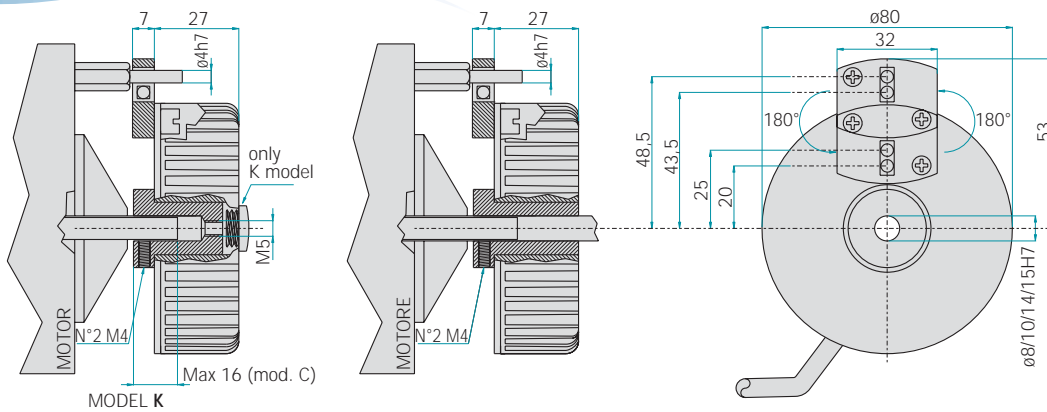


POLES	A / B / C / D / E / F	T
4	30° ± 1,5°	180°
6	20° ± 1,5°	120°
8	15° ± 1,5°	90°

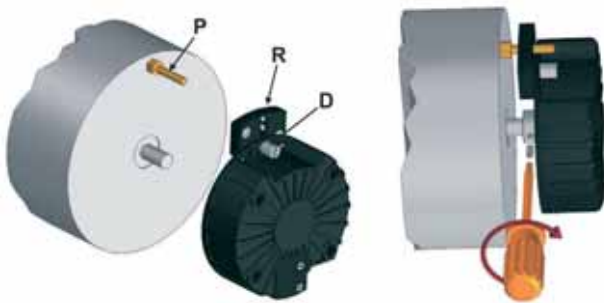
Wire colors

COLOR	SIGNAL	EH	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 - EF 80 C / P / K



How to mount it



- 1) Fix the P antirotation pin
- 2) Insert the encoder on the motor shaft with misalignment recuperation system corresponding to the P pin.
- 3) Fix the D metal ring (NOT in case of Zero phasing)
- 4) Couple the encoder shaft with the motor shaft
- 5) Fix with the two M4 grains the encoder shaft
- 6) For Zero phasing turn the encoder (22° Max), then screw the D metal ring.

Ordering code

<p>Incremental encoder series EH</p> <p>Incremental encoder series EF</p> <p>body dimension 80</p> <p>blind hole C</p> <p>hollow shaft P</p> <p>blind hole back fixing K</p> <p>N° poles of the motor</p> <p>n° 4 poles</p> <p>n° 6 poles</p> <p>n° 8 poles</p> <p>Electronic for Hall phases</p> <p>NPN OPEN COLLECTOR C</p> <p>LINE DRIVER L</p> <p>Incremental encoder resolution</p> <p>PPR: from 200 to 2048</p> <p><i>Please, directly contact our offices for pulses availability</i></p> <p>Zero pulse</p> <p>without zero pulse S</p> <p>with zero pulse Z</p> <p>Alimentazione encoder for mod. EF (Vdc)</p> <p>5</p> <p>Input voltage</p> <p>input voltage EH 5 / 8 ÷ 24</p> <p><i>LINE DRIVER available only with input voltage 5 Vdc or 8 - 24 Vdc</i></p>	<p style="text-align: center;">Full stop to separate special versions.</p> <p style="text-align: center;">EF 80 P 6 L 2000 Z 5 L 8 X 3 P R . XXX</p> <p style="text-align: right;">Special version code numbered from 001 to 999</p> <p style="text-align: right;">R radiale</p> <p style="text-align: right;">P cable output (standard length 0.3 m)</p> <p>R.P.M.</p> <p>3 3000</p> <p>Enclosure rating</p> <p>X standard IP54</p> <p>Bore diameter</p> <p>8 ø 8 mm for EH/EF80C</p> <p>10 ø 10 mm for EH/EF80C - P</p> <p>14 ø 14 mm for EH/EF80C - P</p> <p>15 ø 15 mm for EH/EF80C - P</p> <p>Electronics mod. EF</p> <p>L LINE DRIVER</p> <p>Output types</p> <p>N NPN</p> <p>C NPN OPEN COLLECTOR</p> <p>P PUSH PULL</p> <p>L LINE DRIVER</p> <p><i>For optionals about output types please refer to incremental outputs section</i></p>
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