

Main features

Encoder for rack with automatic slack recovery. If compared to an incremental linear system, this type of encoder extremely simplifies linear measurements and overcomes measurement problems on long distance. Our models are sealed in a solid aluminium body and integrate a preloading system that allows automatic slack recovery between rack and pinion.

- Up to 2000 ppr with zero signal
- Several output types available
- Up to 24 V DC power supply
- Up to 300 kHz output frequency
- Cable or connector output



Ordering code

EC 34 A 100 Z 5 N 10 M . XXX

encoder for rack **EC**

Type of flange

EC 34 A model **A**

Resolution

ppr from **1** to **2000**

please directly contact our offices for pulses availability

Zero pulse

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

Power supply

5 V DC **5**
8÷24 V DC **8/24**

full stop to separate
special versions

special version
code numbered
from 001 to 999

P cable output (standard length 1.5 m)
M M connector output
J J connector output

Shaft diameter

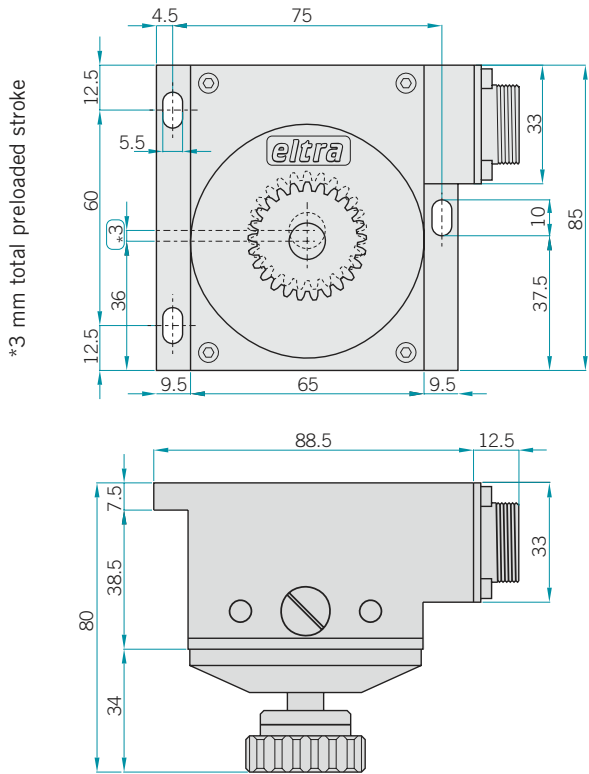
10 ø 10 mm

Output type

N NPN
C NPN open collector
P push-pull
L line driver

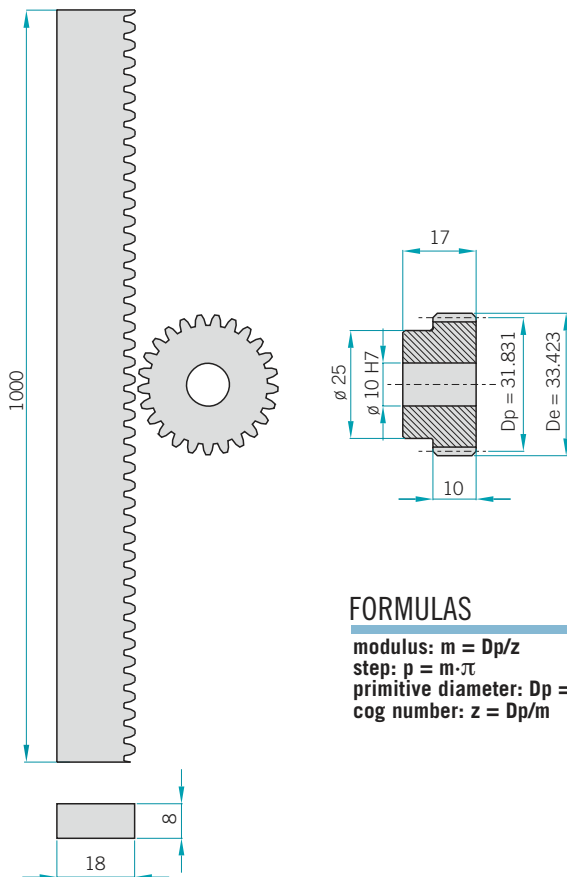
please refer to page 92 for optionals about output types

EC 34



Rack and cogwheel

$p = 2.5 \quad z = 40 \quad m = 0.796$



FORMULAS

modulus: $m = Dp/z$
 step: $p = m \cdot \pi$
 primitive diameter: $Dp = m \cdot z$
 cog number: $z = Dp/m$

Electrical specifications

Resolution	from 1 to 2000 ppr
Power supply	5 V DC 8÷24 V DC
Current consumption without load	100 mA max.
Max. load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN / NPN open collector push-pull / line driver
Max. output frequency	100 kHz
Operating frequency	$F = \frac{RPM \cdot Resolution}{60}$

Mechanical specifications

Shaft diameter	∅ 10 mm
Enclosure rating	IP64
Max. rotation speed	3000 RPM
Max. shaft load	200 N (20 kgf) axial 200 N (20 kgf) radial
Shock	50 G, 11 ms
Vibration	10 G, 10÷2000 Hz
Bearing life	10 ⁹ revolutions
Bearings	2 ball bearings
Shaft material	stainless steel UNI X10CrNiS1809
Housing material	epoxy oven-painted aluminium
Rack and cogwheel material	steel
Operating temperature	0÷60 °C
Storage temperature	-25÷70 °C
Weight	700 g

