




E30 / E31 Incremental rotary encoder

Miniature incremental rotary encoders with (E31) or without zero pulse (E30). The number of available ppr ranges from 2 to 5000. The construction technology relying on compact and innovative electronics allows to achieve high performances at a contained price level. 



Mechanical and environmental specifications

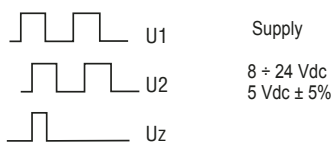
Dimensions	See the drawing
Weight	70 g
Materials: Case	Aluminium + ABS self-extinguishing
Shaft	Stainless steel
Shaft diameter	4 mm
Revolutions per minute	6000
Starting torque	≤ 0,2 Ncm
Inertia	≤ 5 g cm ²
Max load	10N axial / 20N radial
Shock resistance (11 ms)	100 m/sec ²
Vibration resistance (10÷2000 Hz)	50 G
Protection degree	IP 54
Operating temperature	-10 ÷ 60°C
Stocking temperature	-20 ÷ 80°C

Electrical and operating specifications

Pulse code	Incremental
Pulses-revolution	2 ÷ 5000
Zero reference pulse	1 pulse each revolution
Output Signals	Two square waves 90°±30° out of phase. Zero pulse 90°±30° wide
Supply	8÷24 Vdc ± 5 Vdc±5% . Protection against polarity reversal
Electronic output	Push-pull, line-driver, open collector NPN. Protection against short circuits
Current consumption	40 mA max.
Max frequency	100 KHz / 150 KHz
Connection outlets	Axial or radial cable 1 m long

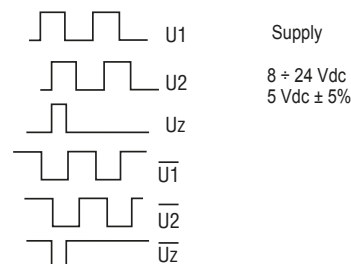
Electronics

- Open collector - push-pull



Signal 2 lags signal 1 with anticlockwise rotation (seen from the shaft side)

- Line driver



Signal 2 lags signal 1 with clockwise rotation (seen from the shaft side)

■ Connections

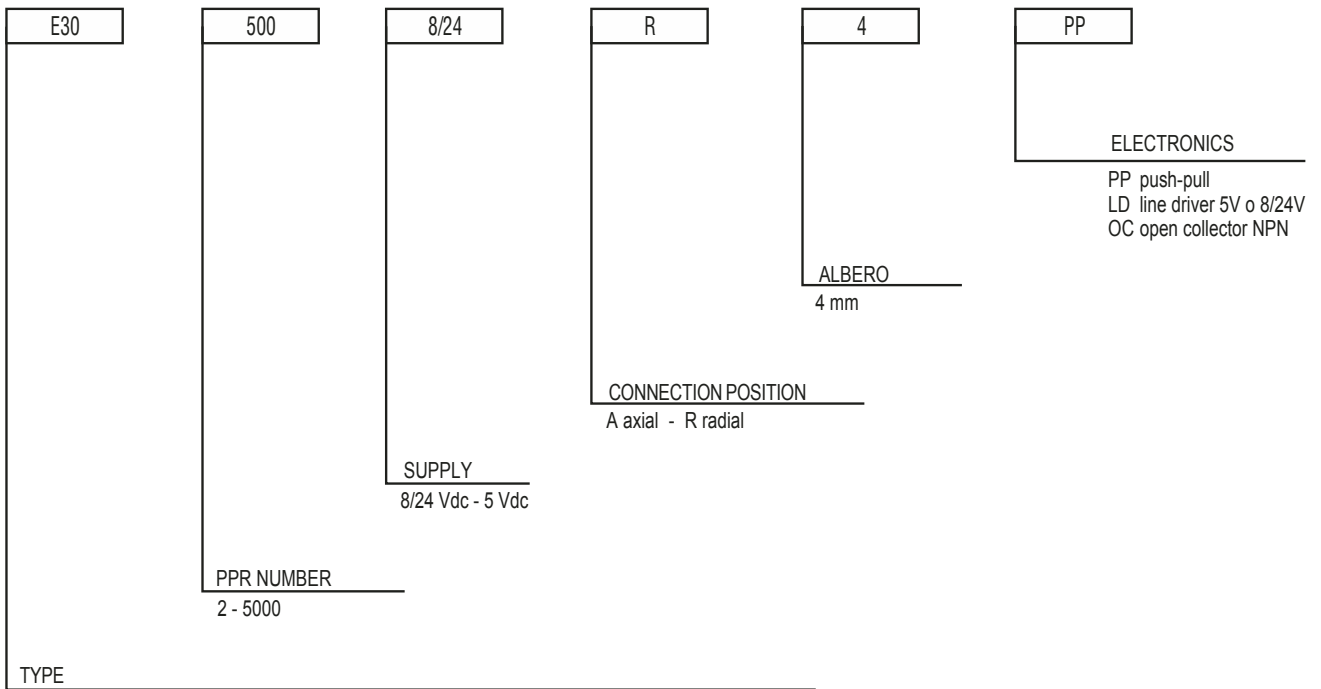
- PUSH/PULL/OPEN COLLECTOR

White = Signal 1
 Green = Signal 2
 Yellow = Signal 0
 (for types with zero pulse only)
 Red = + Vdc
 Blue = 0V
 Shield = Earth

- LINE DRIVER

White = Signal 1
 Green = Signal 2
 Grey = Signal 0
 (for types with zero pulse only)
 Red = + Vdc
 Blue = 0V
 Brown = Signal $\bar{1}$
 Yellow = Signal $\bar{2}$
 Pink = Signal $\bar{0}$
 Shield = Earth

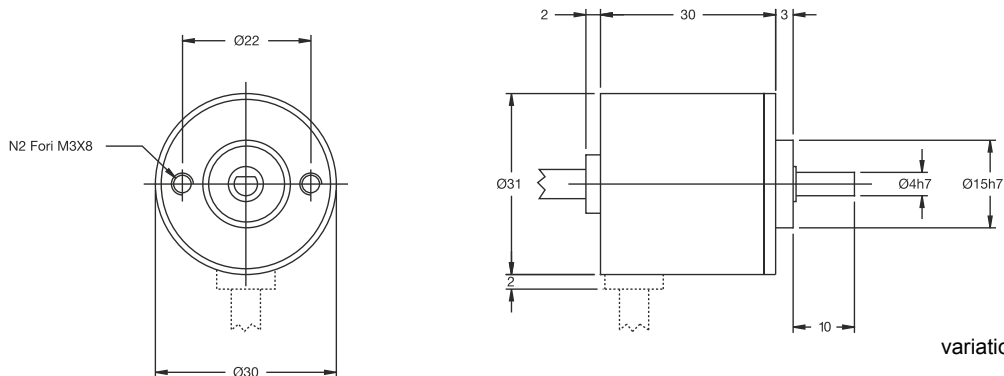
■ Ordering information



E30 without zero pulse
 E31 with zero pulse

■ Dimensions

E30- E31



variations admitted without notice

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