



SE/SEB/SEB-Z Incremental rotary encoders

Incremental rotary encoders, monodirectional (SE) or bidirectional (SEB), with (SEB-Z) or without zero pulse.

Accurate and reliable, their stout mechanical features make them fit to applications even in very harsh conditions.



Mechanical and Environmental Specifications

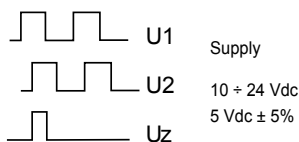
Dimensions	See the drawing
Weight	400 g
Materials: Case shaft	Aluminium + ABS self-extinguishing Stainless steel AISI 303
Shaft diameter	10 mm
Revolutions per minute	6000* continuous - 1000 temporary * Max operating speed with IP65 sealing ring applied on the shaft: 3000 RPM
Starting torque	≤ 0,8 Ncm
Inertia	≤ 25 g cm ²
Max load	80N axial / 100N radial
Shock resistance (11 ms)	50 G
Protection degree	IP 64 (optional IP65)
Operating temperature	0 ÷ +60°C
Stocking temperature	-20 ÷ 80°C
Mounting fittings	Supporting arm of cast aluminium Measuring wheels development of 200 or 500mm

Electrical and Operating Specifications

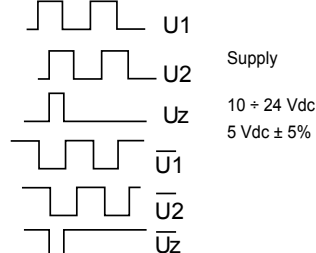
Pulse code	Incremental
Output Signals	SE Square wave SEB/SEB-Zs Two square waves 90°±15° out of phase. Zero pulse 90°±15° wide
Electronic output	Push-pull, open collector NPN, pull-up resistor NPN, line driver Signals protection against short circuits
Supply	10 ÷ 24 Vdc or 5 Vdc ±5%
Current consumption	30 ÷ 80 mA
Connection outlets	Axial cable 3 m long , (1 m for line driver output) Optional: axial connector type MS
Pulses-revolution	2 ÷ 5000
Zero reference pulse	SEB-Z 1 pulse each revolution
Max frequency	100 KHz

Electronics

Open collector - pull-up resistor - push-pull



Line driver



With connection diagram 3-4-5
 (type SEB/SEB-Z only): signal 2 lags signal 1 with
 anti-clockwise rotation (seen from the shaft side)

Connections

• Open collector - pull-up resistor - push-pull - scheme 5

A = Signal 2'
 B = 0 volt
 C = Signal Z (for types SEB-Z only)
 D = +Vdc
 E = signal 1
 *for birectional types only

Cable outlet

Green = Signal 2'
 White = Signal 1
 Blue = 0 Volt
 Braid = Shield
 Red = +Vdc
 Brown = signal Z (for types SEB-Z only)
 *for birectional types only

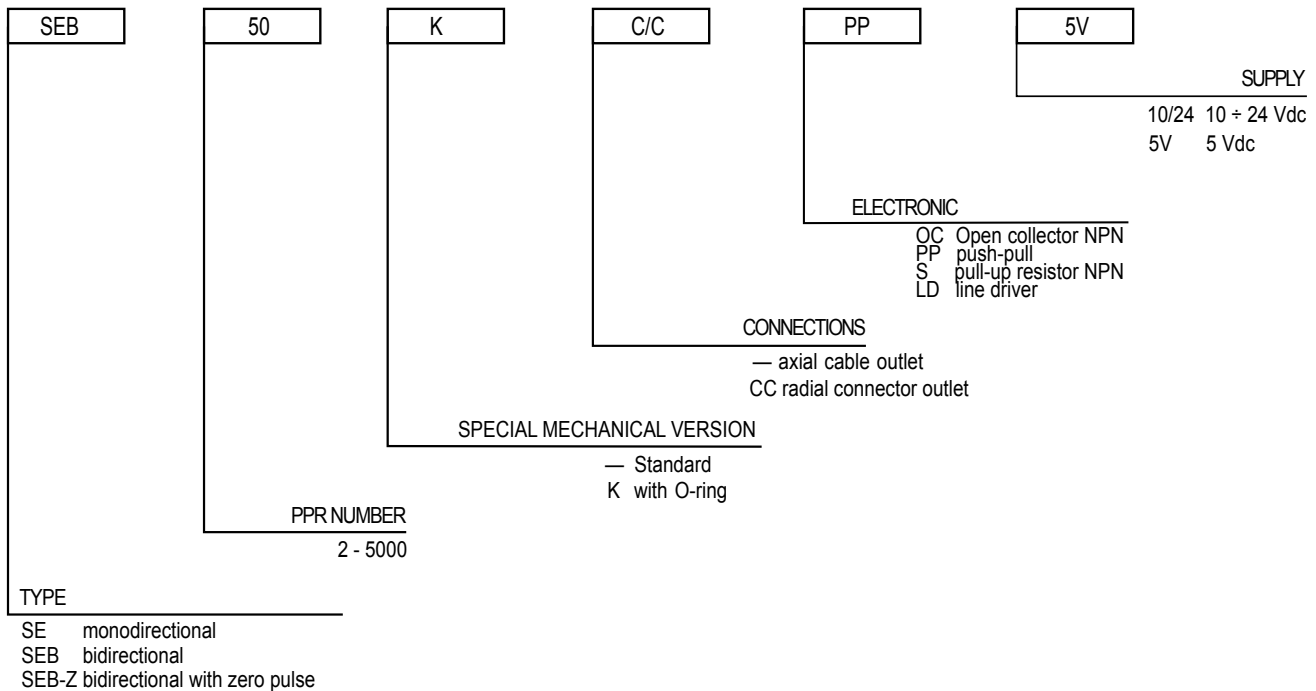
• Line driver - scheme 3 (w/o zero pulse)

A = Signal 1
 B = Signal 2
 C = Signal 1
 D = +Vdc
 E = Signal 2
 F = 0V
 G = Non connected

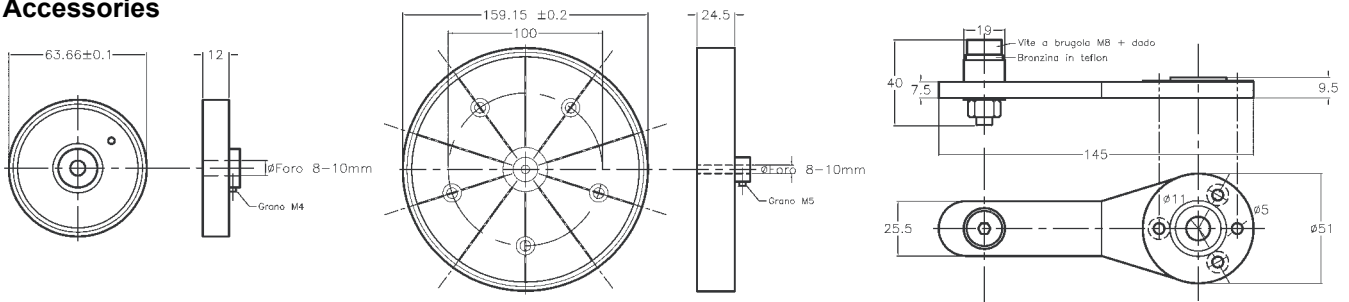
• Line driver - scheme 4

A = Signal 1
 B = Signal 2
 C = Signal Z
 D = +Vdc
 E = +Vdc
 F = 0V
 G = Signal 1
 H = Signal 2
 I = Signal 2
 J = Non connected

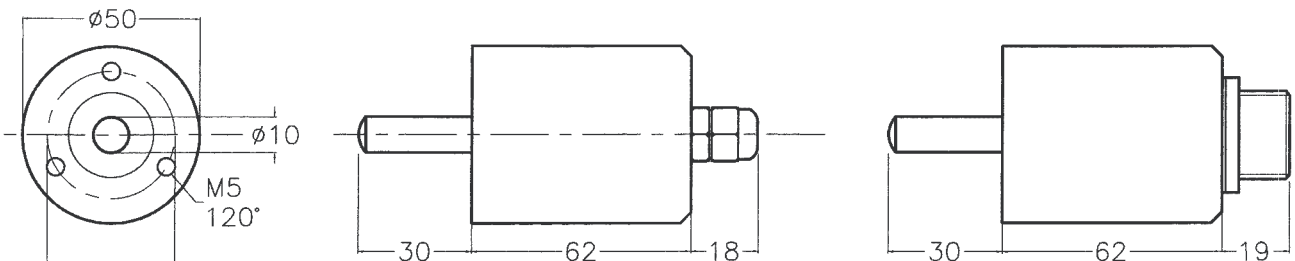
Ordering information



Accessories



Dimensions



variations admitted without notice

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