α E620 / E621

Description

Incremental rotary encoders with or without zero pulse, square flanged, compatible with the international standardized series SIZE25, or with centering mask diameter 50 mm (series E650/651) . The construction technology, together with the compact and innovating electronic specifications, allow to achieve high performances at a contained price level.

Mechanical and environmental specifications

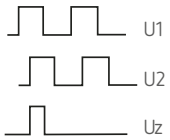
Dimensions	See the drawing
Weight	E620 - 320 g / RE620 - 440 g
Materials: Case	E620 ABS self-extinguishing / RE620 aluminium
Shaft	Stainless Steel AISI 303
Shaft diameter	6 - 8 - 9.52 - 10 mm
Revolutions per minute	6000* continuous / 10000 temporary * Max operating speed with IP65 sealing ring applied on the shaft: 3000rpm
Starting torque	≤ 0.8 Ncm²
Inertia	≤ 25 g cm²
Max load	80 N axial - 100 N radial
Vibration resistance (10÷2000 Hz)	100 m/sec
Shock resistance (11ms)	50 G
Protection degree	IP64 (optional IP65)
Operating temperature	-10 ÷ +70°C
Stocking temperature	-20 ÷ 80°C

Electrical and operating specifications

Pulse code	Incremental
Pulses-revolution	2 ÷ 36000
Zero reference pulse	1 pulse each revolution
Output Signals	Two square waves 90°±15° out of phase. Zero pulse 90°±15° wide
Electronic output	Push-pull, line-driver, open collector NPN, pull-up resistor NPN. Protection against short circuits
Supply	10÷24 Vdc or 5 Vdc±5%. Protection against polarity reversal
Current consumption	30÷80 mA
Max frequency	100/200 KHz
Connection outlets	Axial or radial connector type MS 7p (10p for line driver output) / Axial or radial cable 3 m long (1 m for line driver output)

Electronics

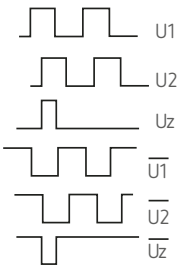
Open collector - pull-up resistor - push-pull



Supply

10 + 24 Vdc
5 Vdc ± 5%

Line driver



Supply

10 + 24 Vdc
5 Vdc ± 5%

With connection diagram 1-3-4: signal U2 lags signal U1 with clockwise rotation (seen from the shaft side).
With connection diagram 2: signal U2 lags signal U1 with anticlockwise rotation (seen from the shaft side).

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Connections

Open collector - pull-up resistor - push-pull

Signals	7-pin connector		Cable colours
	Scheme 1	Scheme 2	
Out 1	A	C	White
Out 2	B	E	Green
Out Z	C	D	Brown
+Vdc	D	F	Red
Ov	F	A	Blue
Non connected	E	B	
Non connected	G	G	
Earth			Shield

Line driver

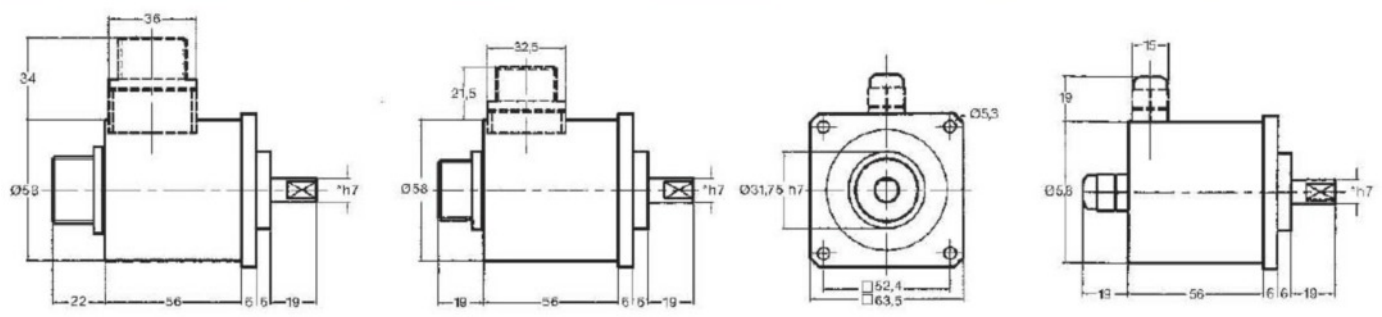
Signals	Connector		Cable colours
	7 pin Scheme 3 without zero pulse	10 pin Scheme 4 with zero pulse	
Out 1	A	A	White
Out 2	B	B	Green
Out Z		C	Grey
+Vdc	D	D	Red
+Vdc		E	Red
Ov	F	F	Blue
Out $\overline{1}$	C	G	Brown
Out $\overline{2}$	E	H	Yellow
Out $\overline{Z}$		I	Pink
Non connected	G	J	
Earth			Shield

Ordering information

E621 - - 500 1024 R 8 PP 2

- CONNECTION SCHEME: 1 scheme 1; 2 scheme 2; 3 scheme 3; 4 scheme 4
- ELECTRONIC: PP push-pull; LD line driver 5V or 10/24Vdc; OC open collector NPN; S pull-up resistor NPN
- SHAFT DIAMETER: 6 - 8 - 9.52 - 10mm
- CONNECTIONS POSITION: A axial; R radial
- SUPPLY: 10/24 Vdc; 5 Vdc
- PPR NUMBER: 2 - 36000
- CONNECTIONS: _ connector outlet; C cable outlet
- TYPE:
  - E620 without zero pulse
  - E621 with zero pulse
  - E650 without zero pulse, centering mask Ø 50 mm
  - E651 with zero pulse, centering mask Ø 50 mm
  - SERIES RE Aluminium case

Dimensions



* AVAILABLE SHAFT DIAMETER 6 - 8 - 9.52 - 10 mm
* SERIES E650/E651 WITH CENTERING MASK Ø 50 mm AVAILABLE

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