



α E520 / E521



Description

Incremental rotary encoders with or without zero pulse, fit to servo-coupling, and compatible to the international standardized series SIZE23; a flange type RE0444 is also available (series RE530). The compact electronic circuitry joins perfectly with the reliable and thoroughly tested mechanical construction, allowing to keep a favourable price/performance relation.

Mechanical and environmental specifications

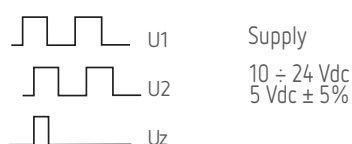
Dimensions	See the drawing
Weight	E520 280 g - RE520 320 g - RE530 600 g
Material: Case	E520 ABS self-extinguishing / RE520/RE530 aluminium
Shaft	Stainless steel AISI 303
Shaft diameter	6 or 8 or 10 mm / RE530 11 mm
Revolutions per minute	6000 continuous* / 10000 temporary * Max operating speed with IP65 sealing ring applied on the shaft: 3000 rpm
Starting torque	≤ 0.8 Ncm
Inertia	≤ 25 g cm
Max load	80 N axial / 100 N radial
Vibrations resistance (10÷2000 Hz)	100 m/sec
Shock resistance (11ms)	50 G
Protection degree	IP64 (optional IP 65)
Operating temperature	-10 ÷ +70°C
Stocking temperature	-20 ÷ 80°C

Electrical and operating specifications

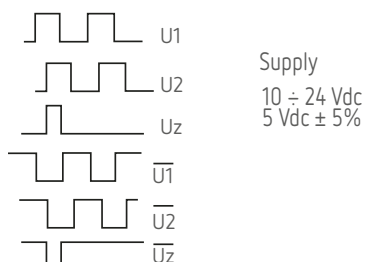
Pulse code	Incremental
Pulses-revolution	2 ÷ 25000
Zero reference pulse	1 pulse each revolution
Output Signals	Two square waves 90°±15° out of phase. Zero pulse 90°±15° wide
Electronic output	Push-pull, line-driver, open collector NPN or PNP, pull-up resistor NPN or PNP. Protection against short circuits
Supply	10÷24 Vdc or 5 Vdc±5%. Protection against polarity reversal
Current consumption	30÷80 mA
Max frequency	100 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



• Line driver



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).

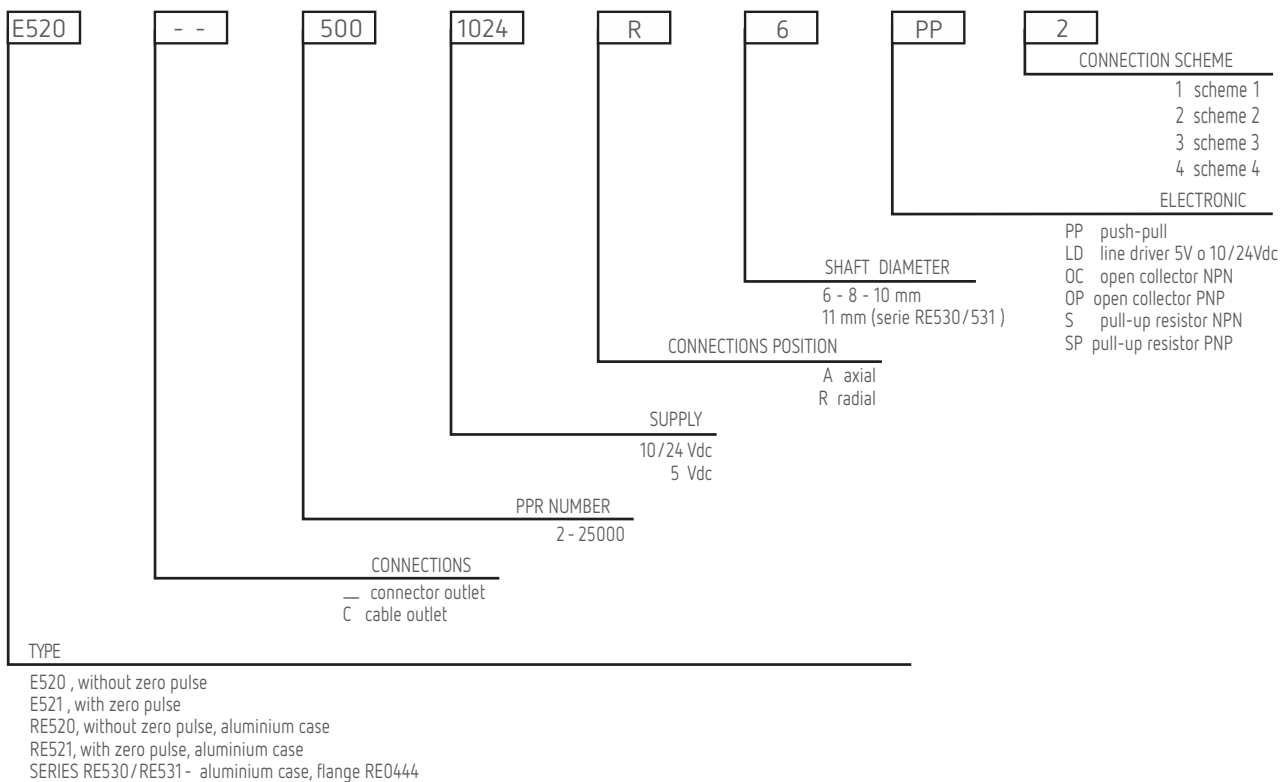
Connections

Open collector - pull-up resistor - push-pull

Scheme 1	Cable outlet	Line driver	Scheme 3
A = Signal 1	White = Signal 1	A = Signal 1	
B = Signal 2	Green = Signal 2	B = Signal 2-	
C = Signal Z (for types with zero pulse only)	Brown = Signal Z	C = Signal 1	
D = +Vdc	(for types with zero pulse only)	D = +Vdc -	
E = Non connected	Red = +Vdc	E = Signal 2	
F = 0 V	Blue = 0 V	F = 0 V	
G = Non connected	Shield = Earth	G = Non connected	

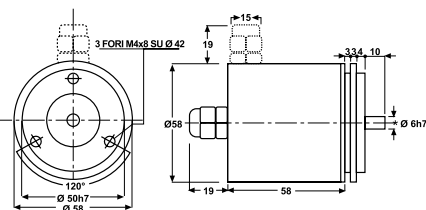
Scheme 2	Scheme 4 (with zero pulse)
A = 0 V	A = Signal 1
B = Non connected	B = Signal 2
C = Signal 1	C = Signal Z
D = Signal Z (for types with zero pulse only)	D = +Vdc
E = Signal 2	E = +Vdc
F = +Vdc	F = 0 V
G = Non connected	G = Signal 1
	H = Signal 2
	I = Signal Z
	J = Non connected

Ordering information

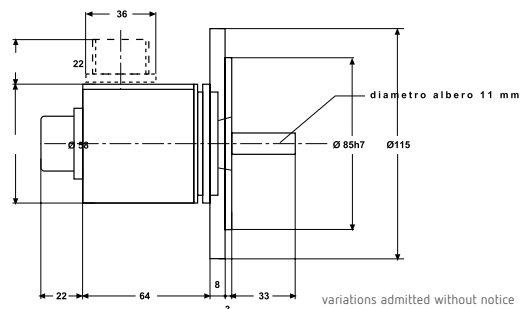
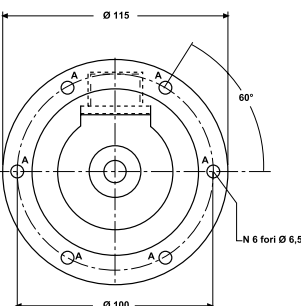


Ordering information

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RE520 / RE521



RE530/RE531



* AVAILABLE SHAFT DIAMETERS 8 mm - 10 mm (length 20 mm)

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Germany/Austria/Switzerland
info@althen.de

Benelux
sales@althen.nl

France
info@althensensors.fr

Sweden
info@althensensors.se

USA/Canada
info@althensensors.com

Other countries
info@althensensors.com