

α E400 / E470



Description

Incremental rotary encoders E400/E401 (flange diameter 58 mm) and E470/E471 (flange diameter 72 mm) can be coupled directly to any motor shaft by means of a joint. Available with or without zero pulse. Their construction technology employs a compact and innovating electronic circuitry granting the best performance at a contained price level.

Mechanical and environmental specifications

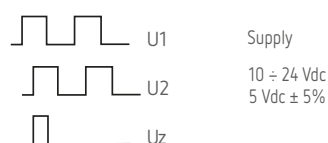
Dimensions	See the drawing
Weight	280 g
Case material	ABS self-extinguishing or aluminium (series RE)
Joint hole diameter	6 or 8 or 10 mm
Revolutions per minute	10000 temporary
Starting torque	≤ 0.8 Ncm
Inertia	≤ 25 g cm
Max load	80 N axial - 100 N radial
Vibration resistance (10÷2000 Hz)	100 m/sec
Shock resistance (11ms)	50 G
Protection degree	IP64
Operating temperature	-10 ÷ +70°C
Stocking temperature	-20 ÷ 80°C

Electrical and operating specifications

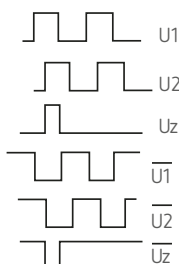
Pulse code	Incremental
Pulses-revolution	2 ÷ 36000
Zero reference pulse	1 pulse each revolution
Output Signals	Two square waves 90°±15° out of phase. Zero pulse 90°±15° wide
Electronic output	Push-pull, line-driver, open collector NPN, pull-up resistor NPN. Protection against short circuits
Supply	10÷24 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)

Electrical and operating specifications

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).

Supply
10 ÷ 24 Vdc
5 Vdc ± 5%

Connections

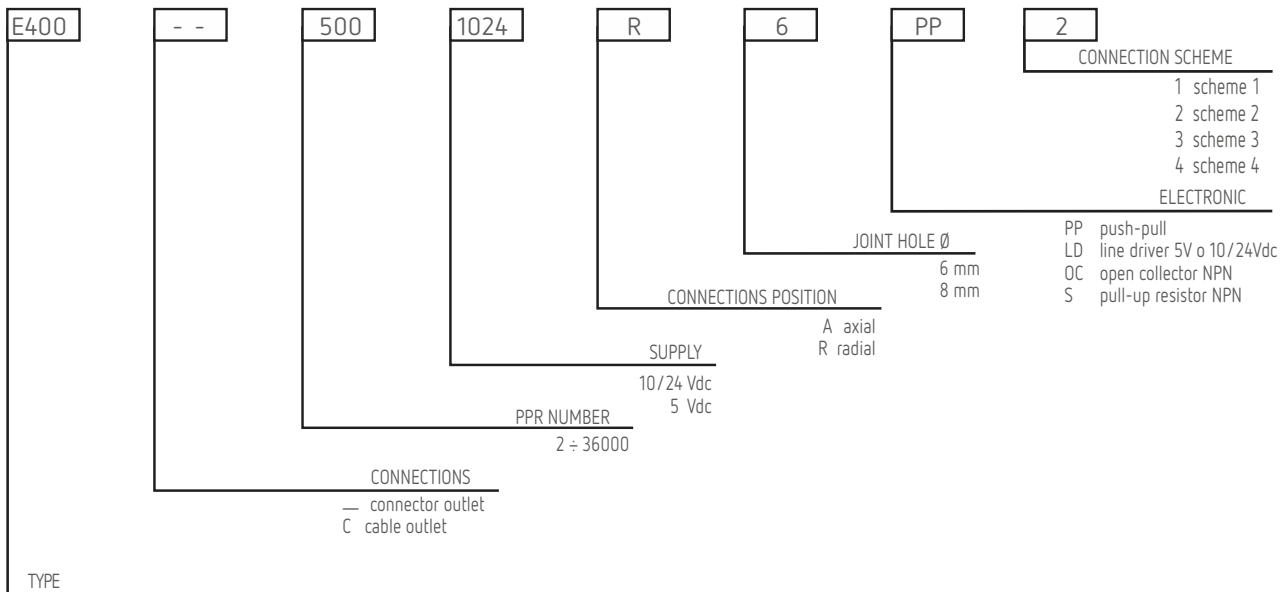
Open collector - pull-up resistor - push-pull

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

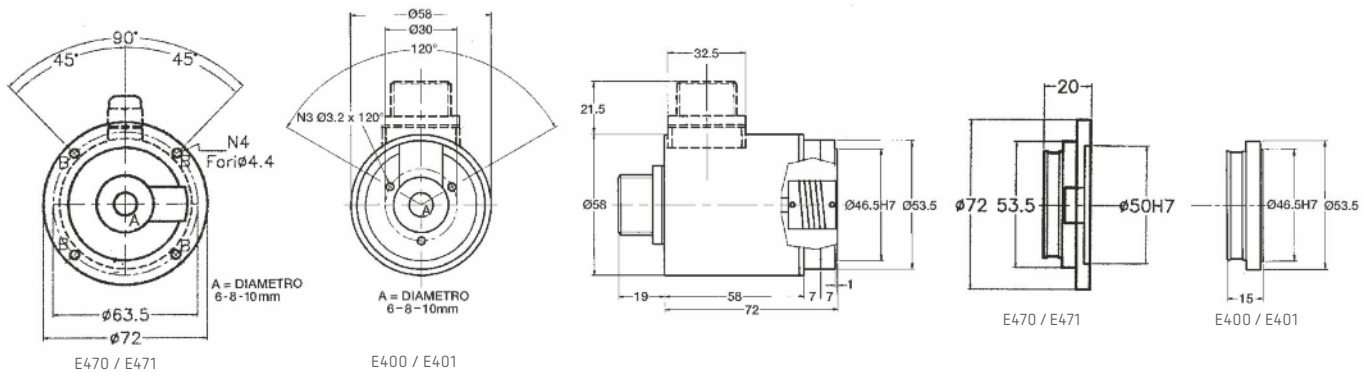
Signals	Connector		Cable colours
	7 pin Scheme 3 without zero pulse	10 pin Scheme 4 with zero pulse	
Out 1	A	A	White
Out 2	B	B	Green
Out Z		C	Grey
+Vdc	D	D	Red
+Vdc		E	Red
Ov	F	F	Blue
Out 1	C	G	Brown
Out 2	E	H	Yellow
Out Z		I	Pink
Non connected	G	J	
Earth			Shield

Ordering information



TYPE
E400 flange Ø 58 mm, without zero pulse
E401 flange Ø 58 mm, with zero pulse
E470 flange Ø 72 mm, without zero pulse
E471 flange Ø 72 mm, with zero pulse
SERIES RE400/401 - RE 470/471 Aluminium case

Dimensions



The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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