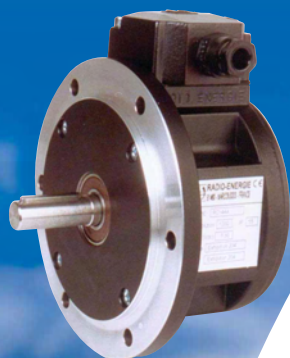


Incremental Optical Encoder with RE.0444 tacho flange



Main features

PRECILEC optical incremental encoders are designed for accurately measuring speed and position of rotating shafts in industrial environment: machine tools, packing machines, motor drives...

They use a differential optical and ratio metric principle to minimize temperature and photodiode aging effects.

Their universal complementary push-pull output interface and their large supply voltage range make them very easy to connect to most of electronic control units with high noise immunity.

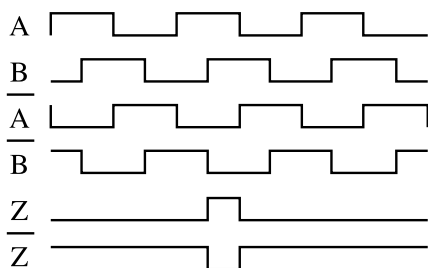
● Shaft type	7 and 11mm stainless steel shaft
● Housing diameter	115mm
● Fixation	Standard REO 444 flange
● Body	Aluminium
● Pulses per turn	Standard 1024, 2048. Others on request, max 5400
● Output signals	A and B with gated Z
● Termination	Radial cable, M23 and MS310 receptacle, junction box
● Operating temperature range (encoder body)	- 25° C / + 85° C

Electrical characteristics

● Supply voltage	4,5 to 30V DC with reverse polarity protection
● No load supply current	100mA under 4.5V – 25mA under 24V
● Output signals	Universal complementary push pull, short circuit protected (7272) RS422 compatible with 5V supply voltage
● Max output frequency	300 kHz
● Max load current per channel	20mA
● EMC	According to EN 61000-6-2 and EN 61000-6-4

● Output waveforms:

A leads B for clockwise rotation from front size



Connections

	Cable	M23	MS310	Junction box
A	white	5	A	3
A	yellow	6	H	6
B	blue	8	B	4
B	orange	1	I	7
Z	green	3	C	5
Z	brown	4	J	8
Vcc:	red	12	D	2
OV:	black	10	F	1
Ground case	Drain	9	G	

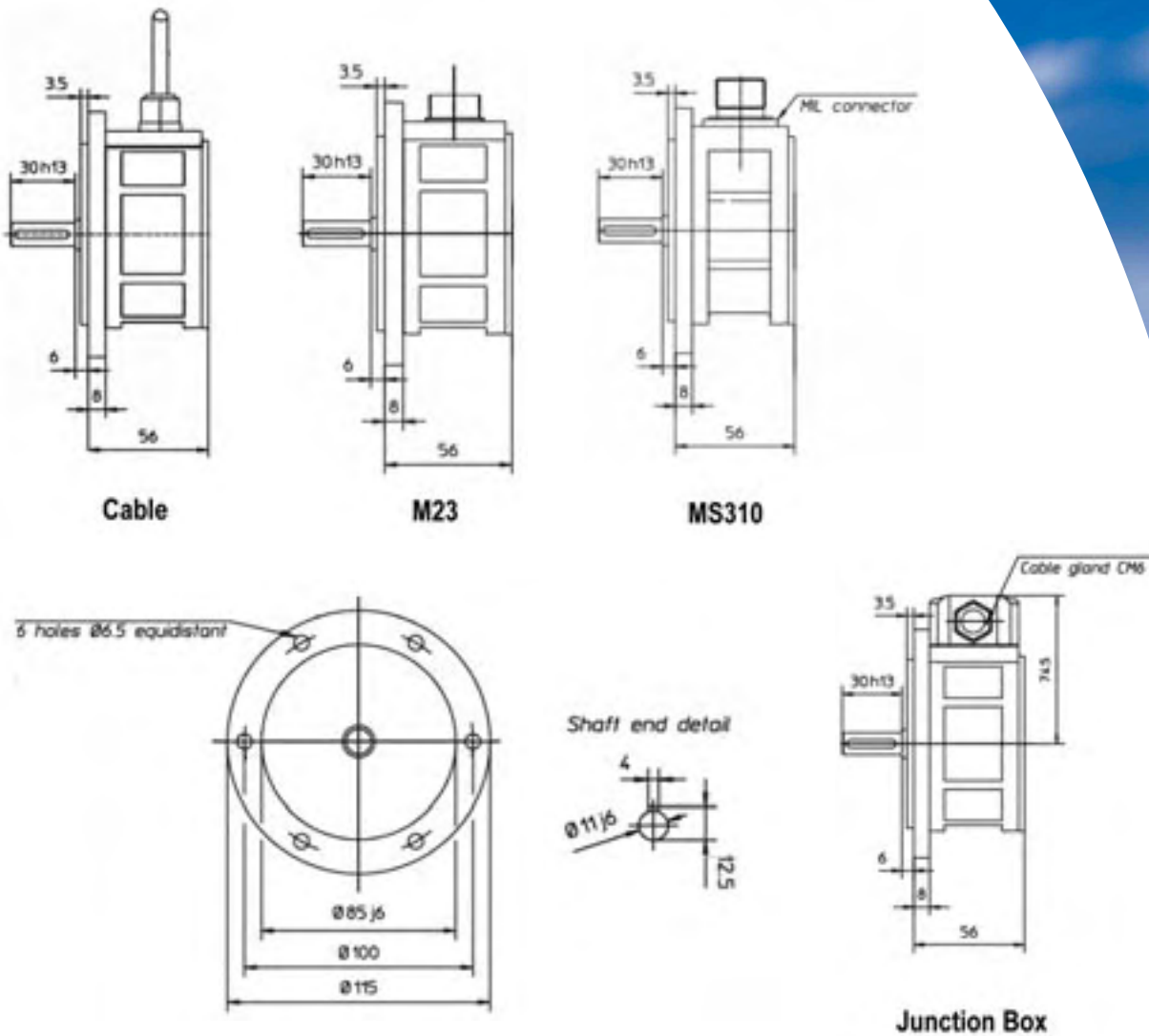
Cable: 8 AWG24 (0.22mm²) wires globally shielded, UL approved

Mechanical characteristics

● Max speed	10000rpm
● Starting torque	≤ 0.5N.cm
● Max shaft load	Axial: 40N, Radial: 80N
● Inertia	70gr.cm ²
● Weight	700gr
● Protection	IP64 at shaft end, IP 65 at housing (IEC 60529)
● Max shock	30g, 11ms (IEC 68-2-27)
● Max vibrations	10g, 10-2000Hz (IEC 68-2-6)
● Theoretical bearings life (x 10 ⁹ revolutions)	25% max load 50% max load 100% max load
	1300 230 40



Outline drawings



Ordering codes

RCI 444R - FSx - xxxx - x

FSx:
Shaft

FS1: 7mm
FS2: 11mm

xxxx:
Pulses per turn

1024
2048

Other resolutions on request, from 0001 to 5400

x:
Termination

- 1:** cable, one meter standard length.
Other lengths on request, from 0.5 to 10 meters. Beyond 10 meters a cable with twisted pairs must be used.
- 2:** M23 12 pins clockwise receptacle*
- 3:** MS310 10 pins receptacle
- 4:** Junction box

*Other versions on request

Rev B, 23/02/06 - We reserve the right to modify technical characteristics in the interest of technological advance.



ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
E-08918 Badalona
(Spain)

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
C/ Sagasta, 8, 1ª planta
E-28004 Madrid
(Spain)

PORTUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com

www.precilec.com

