



Mini Encoder ES 24

Optical incremental shaft encoder,
 case diameter only 24 mm, case height only 29 mm,
 high shaft loading 10 N radial and 5 N axial,
 high shock resistance 490 m/s²,
 operating temperature -10 ... +70°C

Resolution

Resolution (Pulses/Revolution):

100	300	360	500
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Type explanation

ES 24-3-0500-24-C-R

Encoder type	Incremental
Flange diameter	ø 24 mm
Case diameter	ø 24 mm
Number of channels	3 = A + B + M
Resolutions	xxxx = Impulse pro Umdrehung
Supply voltage	12 = 4,5 ... 13 VDC 24 = 10,8 ... 26 VDC
Output driver	C R
Position of connection	R
Shaft diameter	ø 4 mm

Technical data

Mechanical data

Rotational speed	? 6000 min ⁻¹
Torque	? 0,1 Ncm (20°C)
Moment of inertia	2 g cm ²
shaft loading	? 10 N radial ? 5 N axial
Angular acceleration	? 10 ⁵ rad/sec ²
Weight	0,035 kg

Environmental conditions

Vibration	150 ms ⁻² (50 Hz / 1h)
Shock	490 ms ⁻² (11 ms)
Operating temperature	-10 ... +70°C
Storage temperature	-30 ... +80°C
Atmospheric humidity	? 85% r.h.
Protection class	IP 50 (DIN 40050/IEC 144)

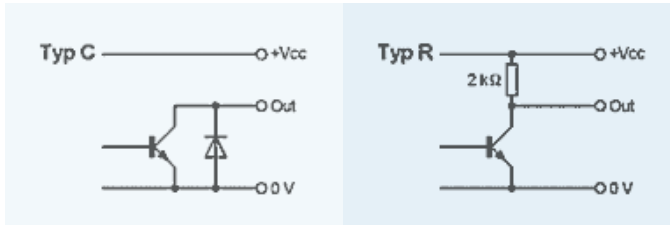
Electrical data

Scanning type	Optical, without contact
Transmitter, infrared	LED
Receiver	Photo-Transistor
Supply voltage	Vcc = 4,5 ... 13 VDC, output R, C Vcc = 10,8 ... 26 VDC, output C
Power consumption	? 45 mA, output R ? 30 mA, output C
Output frequency	? 60 kHz
Signal level	High > Vcc -1 V Low < 0,4 V (20 mA)
Load capacity of the outputs	20 mA, output R 30 mA, output C
Dielectric strength of outputs	+50 V

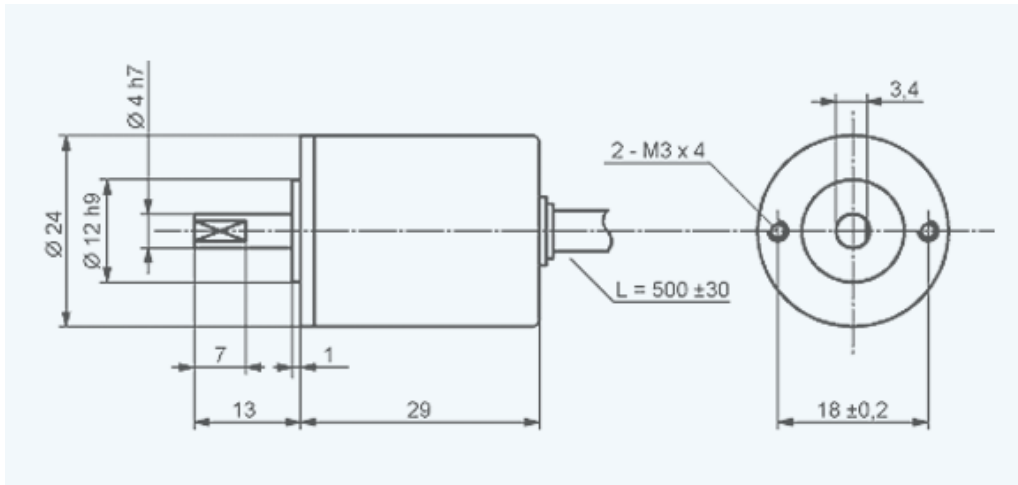
Cable 3 channels

Wire colour	Signal
Red	+Vcc
Black	0 V GND
Blue	Signal A
White	Signal B
Yellow	Signal M
Shield	N.C.

Output driver



Outline drawing



Version E 525-208 · Subject to change

INDUcoder® · INDUcoder Messtechnik GmbH, Kaiserstraße 316, 47178 Duisburg, Deutschland
Tel: (0203) 57047-0, Fax: (0203) 57047-20, E-Mail: info@inducoder.de, Internet:
www.inducoder.de