

Rotary Encoder CESI



Electronic rotary encoder with magnetic rest for quick and simple adjustment of digital values.

- Version without impulse contact
 - CESI H: 5 V– / 10 mA
 - CESI G: 9 bis 24 V– / 12 mA
- Version with impulse contact
 - CESI L: 5 V– / 10 mA
 - CESI V: 9 bis 24 V– / 12 mA
 - CESI C: 5 V– / typ. 0,7 mA
- Soldering depth 19,5 mm only.
- For direct soldering to printed circuits or for connection via flat wire.
- 16, 24, 32 or 100 pulses per revolution.
- Also available with stronger indexing torque.
- Low wear through electronic impulse generation and magnetic indexing.
- Recognition of rotation sense by additional output signal right/left.
- Watertight against front panel on request.
- Types CESI H and G optional with metal or plastic shaft in 6 or 8 mm diameter.
- Type CESI C
For battery operation with reduced power consumption.

1.0 Construction

1.1 Function	Electronic rotary encoder with magnetic rest
1.2 Distribution over 360°	16, 24, 32 or 100
1.3 Detent angle	22,5°; 15°; 11,25° or 3,6°
1.3 Contacts	Soldering pins or flat wire
1.4 Mounting	Central mounting

2.0 Electrical Data

2.1 Design	CESI	H	G	L	V	C
2.2 Integrated impulse contact	–	–	–	x	x	x
2.3 Nominal voltage	V–	5	9 to 24	5	9 to 24	5
2.4 Current max.	mA	10	12	10	12	0,7 typ.
2.5 Output signals	TTL-compatible; 0 to U_B					
2.6 Life expectancy	2 x 10 ⁶ revolutions					
2.7 Outputs	5 outputs (rectangular)					
2.8 Impulse per revolution	16, 24, or 32					
2.9 Recognition of rotation	2 independent outputs					

3.0 Mechanical Data

3.1 Impulse generation	Electro-magnetic	
3.2 Operating torque	Normally	Strength/watertight
16 detents	0,55 to 0,70 Ncm	0,70 to 0,85 Ncm
24 detents	0,45 to 0,60 Ncm	0,55 to 0,70 Ncm
32 detents	0,30 to 0,45 Ncm	0,40 to 0,55 Ncm
3.3 Revolutions per minute max.	1000 min. ⁻¹	
3.4 Dust protection	Sealed	
3.5 Waterproofing	IP 65 as special design from front panel	
3.6 Maximum starting torque	5 Nm	

4.0 Impulse Contact Data

4.1 Switching power max.	24 V– / 50 mA; Min. load 5 V– / 1 mA
4.2 Contact resistance max.	100 mΩ
4.3 Operating force	2 to 8 N
4.4 Operating way	0,2 to 0,3 mm

5.0 Other Data

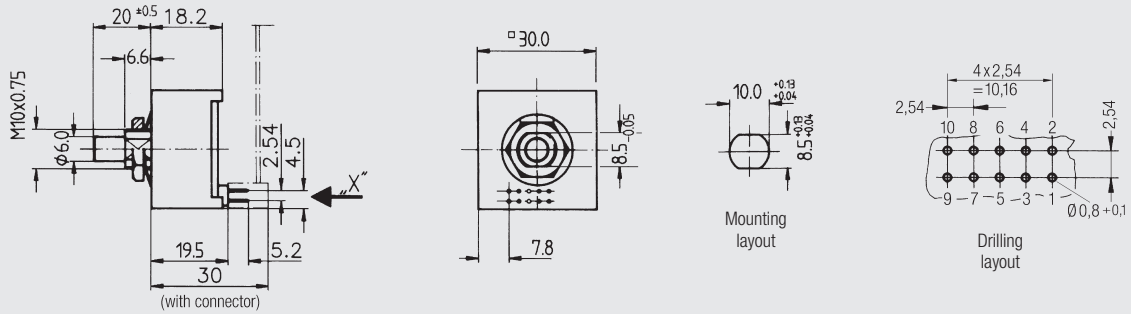
5.1 Ambient temperature	–20 to +70°C
5.2 Storage temperature	–25 to +70°C
5.3 Soldering time and temperature	5s to 260°C

Ordering Codes

Designation of type	CESI
1. Versions	H, G, L, V, C
2. Distribution over 360°	16, 24 or 32
3. Shaft	P = plastic, Ø 6 mm (standard); M = metal Ø 6 or 8 mm
4. Shaft diameter	6 = 6 mm; 8 = 8 mm
5. Rest	S = standard; X = stronger indexing
6. Waterproof	WD = watertight against front panel

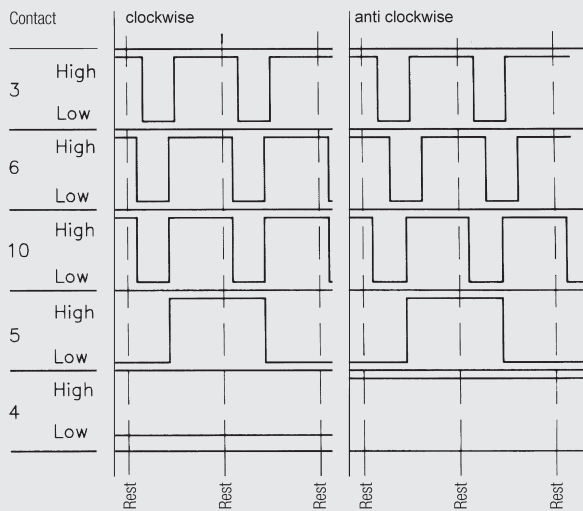
The bold-typed data in the yellow order blocks remain unchanged.
 Normal-typed data match the drawings and can be modified according to your wishes.
 Blanks need to be completed according to the ordering details on the previous page.

Dimensional Drawings · Dimensions in mm



CESI - 1 - 2 - 3 - 6A - 5 - 6

CESI · Electronic rotary encoder

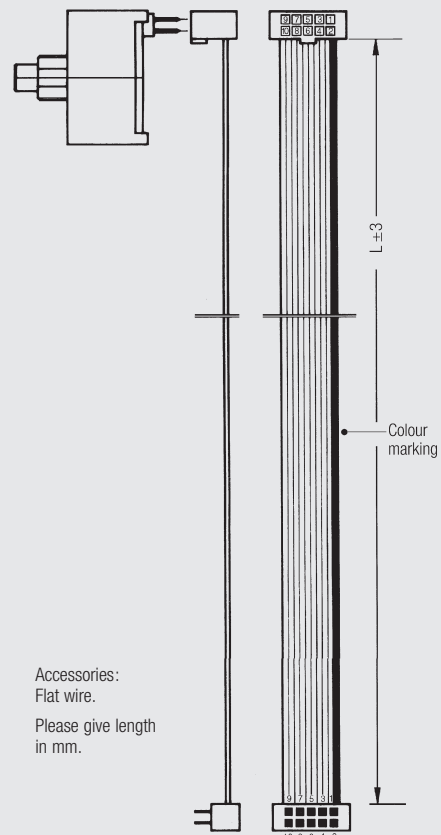


Connection diagram

- Contact 1 U_B
- Contact 2 GND
- Contact 3 Dextrogyrated low-impulse, lagging to pin 6.
Laevo-rotary low-impulse, leading load to pin 6.
- Contact 4 Dextrogyrated static low.
Leading load static high.
- Contact 5 At every indexing a change of level.
- Contact 6 Dextrogyrated low-impulse, leading load to pin 3.
Laevo-rotary low-impulse, lagging to pin 3.
- Contact 7/8 Impulse contact (potential free).
- Contact 10 At every indexing a low-impulse,
(at type V not occupied).

Phase displacement between pin 3 and pin 6
 not dependant on speeds.

CESI · Impulse diagram



Accessories:
 Flat wire.
 Please give length
 in mm.

CESI · Flat wire 150 mm