

Compact Type ESI 36K



- Low price, compact, high performance
- Chromated housing resistant to cooling lubricants and other environmental influences
- Universal application in mechanical engineering, vehicles, conveyors and elevators
- Wide temperature range (-30 ... +90 °C)
- Temperature and ageing compensation
- Low current consumption despite high scanning rate
- IP 65 from housing side
- Sturdy cable entry thanks to multiple clamping
- Highly flexible cable (withstands constant flexing at 0 °C ... 70 °C)
- Short circuit proof
- Broad input voltage range (5 ... 18 V or 8 ... 30 V)

Mechanical characteristics:

Speed:	max. 12000 min ⁻¹
Rotors moment of inertia:	approx. 0.2 x 10 ⁻⁶ kgm ²
Starting torque:	< 0.05 Nm
Radial load capacity of the shaft:	40 N
Axial load capacity of the shaft:	20 N
Weight:	approx. 0.08 kg
Protection acc. to EN 60 529:	IP 65, housing side
Working temperature:	-20° C ... +85 °C ²⁾
Operating temperature:	-30 °C ... +90 °C ²⁾
Materials:	Shaft: stainless steel; Housing: chromated Aluminum Cable: PVC
Shock resistance acc. to DIN-IEC 68-2-27:	1000 m/s ² , 6 ms
Vibration resistance acc. to DIN-IEC 68-2-6:	100 m/s ² , 55 ... 2000 Hz

²⁾ Non-condensing

Pulse rates available at short notice:

25, 100, 200, 360, 500, 600, 1000, 1024, 1500, 2000, 2048, 2500

Other pulse rates available on request

Electrical characteristics:

Output circuit:	Push-pull (7272) ¹⁾	Push-pull (7272) ¹⁾
Supply voltage:	5 ... 18 V DC	8 ... 30 V DC
Power consumption (no load) with inverted signal:	< 40 mA	< 40 mA
Permissible load/channel:	max. ±50 mA	max. ±50 mA
Pulse frequency:	max. 200 kHz	max. 200 kHz
Signal level high:	min. U _B = 2.5 V	min. U _B = 3 V
Signal level low:	max. 0.5 V	max. 0.5 V
Rise time t _r	max. 1 µs	max. 1 µs
Fall time t _f	max. 1 µs	max. 1 µs
Short circuit proof outputs ¹⁾ :	yes ²⁾	yes ²⁾
Reverse connection protection at U _B :	yes	yes

Conforms to CE requirements acc. to EN 6100-6-1, EN 6100-6-4, EN 61000-6-3

¹⁾ Max. recommended cable length 30 m

²⁾ If supply voltage correctly applied

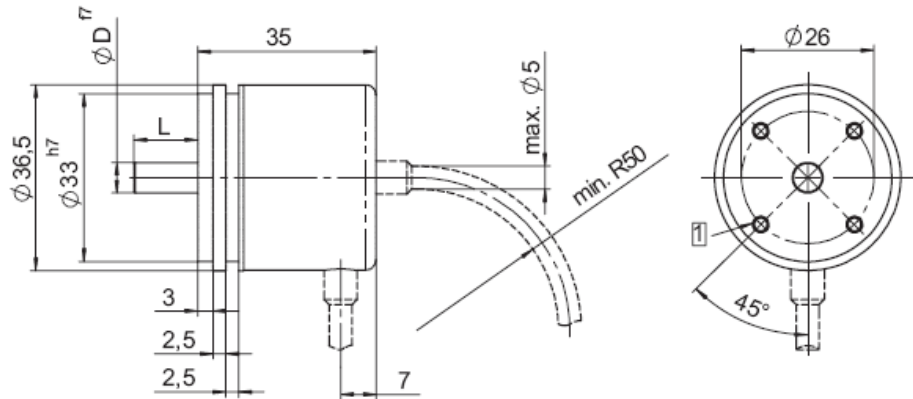
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Terminal assignment:

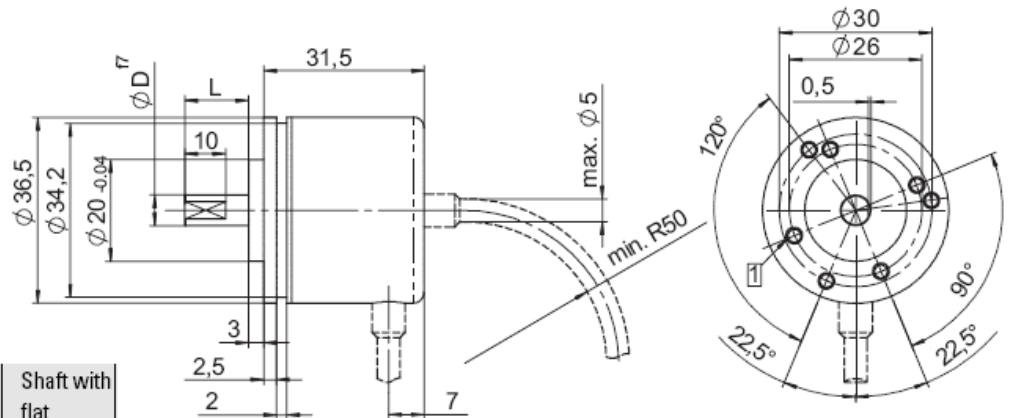
Signal:	0 V	+U _B	A	\bar{A}	B	\bar{B}	0	$\bar{0}$	Shield
Colour:	WH	BN	GN	YE	GY	PK	BU	RD	

Insulate unused outputs before initial startup.

**Dimension:
Synchronous
bracket**



Clamping bracket



Order-Code Shaft	D	L	Shaft with flat
1	$\phi 4$	10	no
2	$\phi 5$	10	no
3	$\phi 6$	12,5	yes
5	$\phi 1/4''$	12,5	yes

1 M3, 5 deep

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Order code

ESI 36K.XXXX.XXXX

Type series

Bracket

- 2 = Synchronous bracket
- 3 = Clamping bracket

Shaft

- 1 = ø 4 mm
- 2 = ø 5 mm
- 3 = ø 6 mm x 12.5 mm
- 5 = ø 1/4" x 12.5 mm

Pulse rate

(e.g. 500 pulses => 0500)

Type of connection

- 1 = cable axial (2 m PVC cable)
- 2 = cable radial (2 m PVC cable)**
- 3 = 8-pin M12 connector axial
- 4 = 8-pin M12 connector radial

Output and voltage supply

- 2 = Push-pull with inverted signals
5 ... 18 V DC Power supply
- 3 = Push-pull without inverted signals
8 ... 30 V DC Power supply
- 4 = Push-pull with inverted signals
8 ... 30 V DC Power supply**
- 5 = RS422 with inverted signals
8 ... 30 V DC Power supply
- 6 = RS422 with inverted signals
5V DC Power supply

*Preferred types are
indicated in bold*