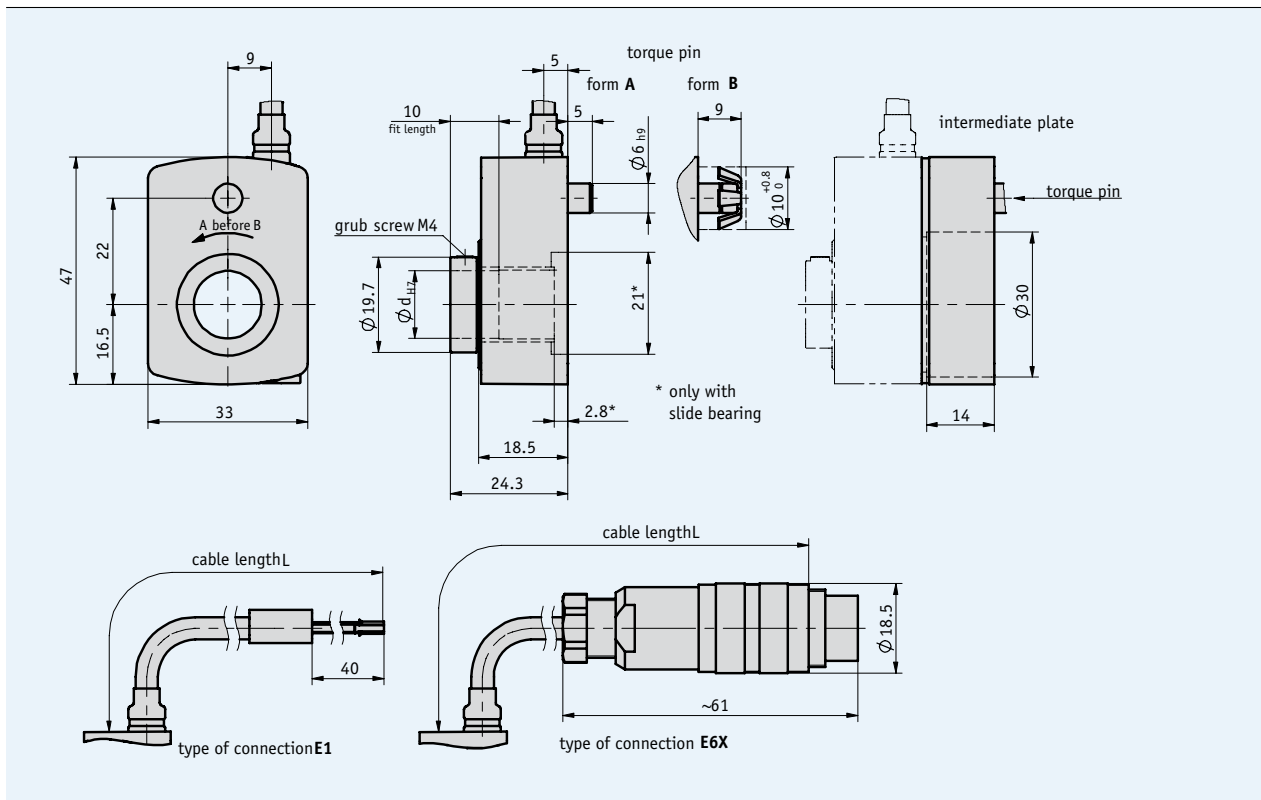


### Profile

- Installation depth 25 mm
- Resolutions of max. 2000 pulses/revolution
- Through hollow shafts up to max.  $\varnothing$  14 mm with plain or ball bearing
- IP50 protection category (plain bearing), IP63 (ball bearing)
- Housing made of reinforced plastic



2.1



### Mechanical data

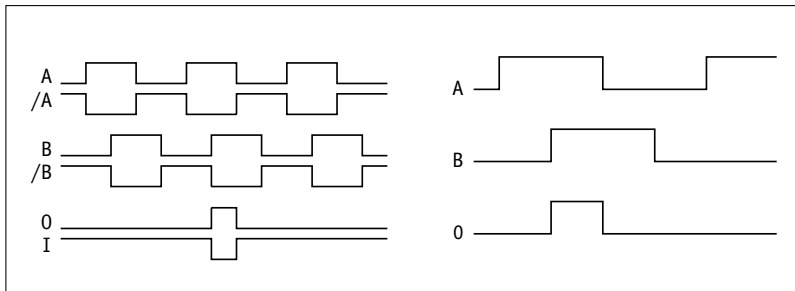
Feature	Technical data	Additional information
Max. speed	plain bearing 600 rpm short-time ball bearing 3000 rpm	
Shaft moment of inertia	$\sim 1.9 \times 10^{-6} \text{ kgm}^2$	
Weight	$\sim 0.1 \text{ kg}$	with 1 m cable
Protection category	IP50 plain bearing IP63 ball bearing	
Operating temperature	$-20 \dots +80 \text{ }^\circ\text{C}$	
Storage temperature	$-20 \dots +80 \text{ }^\circ\text{C}$	
Shock resistance	200 g/6 ms	according to DIN EN 60068-2-27
Vibration resistance	10 g/50 Hz	according to DIN EN 60068-2-6
Shaft	browned steel	
Housing	reinforced plastic	
Cable sheath	PUR $\varnothing 4.8 \text{ mm}$	

### Electrical data

#### Output circuit

Feature	PP, OP Push-pull	LD5 Line driver	LD24 Line driver	Additional information
Output circuit	PP, OP push-pull	LD5 line driver	LD24 line driver	
Operating voltage	+10 ... +30 V DC	+5 V DC $\pm 5\%$	+10 ... +30 V DC	
Current consumpt. w/o load (typ.)	<25 mA	<25 mA	<25 mA	AB0 variant
Maximum load/channel	$\pm 30$ mA	$\pm 30$ mA	$\pm 30$ mA	
Max. pulse frequency	100 kHz	100 kHz	100 kHz	
Phasing	90°	90°	90°	
Signal level high (min.)	29.2 V DC			UB = 30 V, IOH = -30 mA
Signal level low (max.)	0.5 V DC			UB = 30 V, IOL = 30 mA
Signal level		RS422 A spec.	RS422 A spec.	
Inverse-polarity protection on UB	yes	no	yes	

#### Signal image



**!** The state of the signals A and B with regard to the reference signal O is not defined and can deviate from the signal image.

2.1

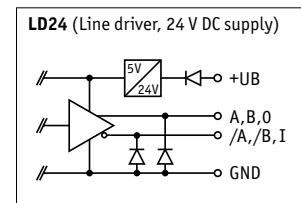
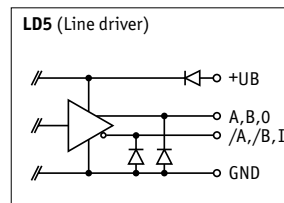
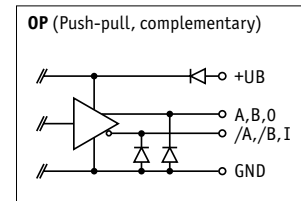
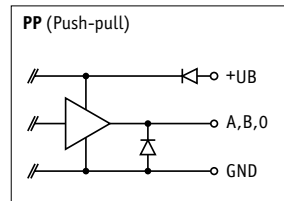
### Pin assignment

#### Output circuit PP

Signal	E1	E6X
B	white	1
+UB	brown	2
O/I	green	3
A	yellow	4
GND	gray	5
N.C.		6, 7

#### Output circuit OP, LD5, LD24

Signal	E1	E6X
/B	blue	A
N.C.		B
O	green	C
/O	red	D
A	yellow	E
/A	pink	F
N.C.		G
B	white	H
N.C.		J
GND	gray	K
N.C.		L
+UB	brown	M



### Order

#### Order table

Feature	Order data	Specification	Additional information
Output signals	... <b>A</b>	ABO, ABI, ABX	
Pulses/revolution	... <b>B</b>	50, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000 others on request	
Type of connection	E1 E6X <b>C</b>	flying leads connector	
Cable length L (m)	... <b>D</b>	0.5, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0	
Output circuit	PP OP LD5 LD24 <b>E</b>	push-pull push-pull with inverted signals line driver line driver	
Shaft diameter	G14 K10 <b>F</b>	plain bearing Ø 14 mm ball bearing Ø 10 mm	
Torque support	A B <b>G</b>	form A, cylindric pin form B, for tolerance compensation	
Intermediate plate	OZP ZP <b>H</b>	without intermediate plate with intermediate plate	

#### Order code



**Scope of delivery:** IG04M, User information

**Accessories:**

- Mating connectors Page 106
- Cable extension Page 108
- Electronic display MA10/4 Page 96
- Electronic display MA55 Page 94

**Additional information:**

General information and areas of application Page 8 cont.