

### Profile

- Robust metal housing
- LED status display
- sin/cos output  $1 V_{SS}$
- Signal period 2000  $\mu\text{m}$
- Scale MB200/1
- Insensitive to dust, shavings, humidity, etc.



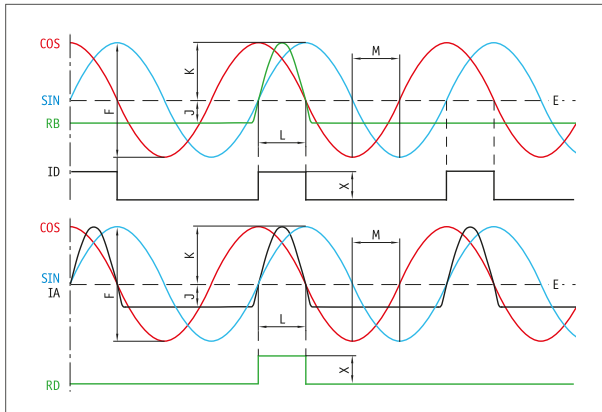
### Mechanical data

Feature	Technical data	Additional information
Housing	zinc/aluminum die-cast, nickel-plated	M design
	green plastic	A design
	zinc die-cast	ZM design
Sensor/band reading distance	0.1 ... 0.8 mm	0, IA, ID reference signal
	0.1 ... 0.5 mm	reference signal RB, RD
Cable sheath	PUR, suitable for drag-chain use	6, 8-core $\varnothing 5-0.4$ mm
Cable bending radius	5x cable diameter	static
	7.5x cable diameter	dynamic
Service life of cable	>5 Million cycles	Under the following test conditions: travel 4.5 m travel speed 3 m/s acceleration 5 m/s <sup>2</sup> ambient temperature 20 °C $\pm 5$ °C.
Weight	0.03 kg	(without cable)

### Electrical data

Feature	Technical data	Additional information
Operating voltage	10.5 ... 30 V DC	
	5 V DC $\pm 5$ %	
Current consumption	<25 mA at 24 V DC	
	<50 mA at 5 V DC	
Output signals	sin, /sin, cos, /cos, index, /index	
Output voltage	$1 V_{pp} \pm 10$ % at 0 ... 70 °C	
Output current	$\leq 60$ mA, peak, 5 s	per wire
Output impedance	0 $\Omega$ , ( $R_{load} > 100 \Omega$ )	short-circuit proof
Signal period	2000 $\mu\text{m}$	
Offset voltage	2.5 V, $\pm 100$ mV	sine/cosine mean to GND (10.5 ... 30 V DC)
	UB/2 $\pm 100$ mV	sine/cosine mean to GND (5 V DC)
Phasing	90° $\pm 1^\circ$ , $\pm 3^\circ$ (20 m/s)	sin/cos
	45 °	sin (reference signal)
	135 °	cos (reference signal)
Type of connection	open cable end	
	plug connector	7/8-pole

### Signal image



E: Reference voltage 2.5 V  
 F:  $1 V_{SS} \pm 10\%$   
 J:  $\geq 0.2 V$   
 K:  $\geq 0.3 V$   
 L:  $100^\circ \pm 20\%$   
 M:  $90^\circ \pm 1.0^\circ / \pm 3^\circ$  (20 m/s)  
 X:  $1 V_{SS}$

### System data

Feature	Technical data	Additional information
Linearity deviation	$\pm 5 \mu m$ at $T_U = 20^\circ C$	
Repeat accuracy	$4 \mu m$	unidirectional
Travel speed	$\leq 25 m/s$ $\leq 5 m/s$	reference signal RB, RD

### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	$-10 \dots 70^\circ C$	
Storage temperature	$-30 \dots 80^\circ C$	
Relative humidity	100 %	condensation admissible
EMC	EN 61000-6-2	interference resistance / immission
	EN 61000-6-4	emitted interference / emission
Protection category	IP67	EN 60529
Shock resistance	$500 m/s^2$ , 11 ms	EN 60068-2-27
Vibration resistance	$200 m/s^2$ , 50 Hz ... 2 kHz	EN 60068-2-6

### pin assignment

#### without reference signal

Signal	E1	E6X
GND	black	1
sin	red	2
/sin	orange	3
cos	yellow	4
/cos	green	5
+UB	brown	6
nc		7

#### with reference signal

Signal	E1	E6X
sin	red	1
cos	yellow	2
index	blue	3
+UB	brown	4
GND	black	5
/sin	orange	6
/cos	green	7
/index	violet	8

### Order

#### Ordering information

One or more system components are required:

Magnetic tape MB200/1

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#### Ordering table

Feature	Ordering data	Spezifikation	Additional information
Operating voltage	A 10	10.5 ... 30 V DC	
	5	5 V DC $\pm 5\%$	

Feature	Ordering data	Spezifikation	Additional information
design	<b>B</b> M A ZM		
Type of connection	<b>C</b> E1 E6X	open cable end bullet connector without mating connector cable extension on request	
cable length l	<b>D</b> ...	01.0 ... 20.0 m, in intervals of 1 m	
reference signal	<b>E</b> 0 IA ID RB RD	without periodic index (analog) periodic index (digital) fixed, tape side (analog) fixed, tape side (digital)	index signal every 2 mm index signal every 2 mm

### Order key

LE200 -  -  -  -  -

A      B      C      D      E



#### Scope of delivery:

LE200, Fastening set, User information



#### Accessories you can find:

Installation tool ZB3054

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