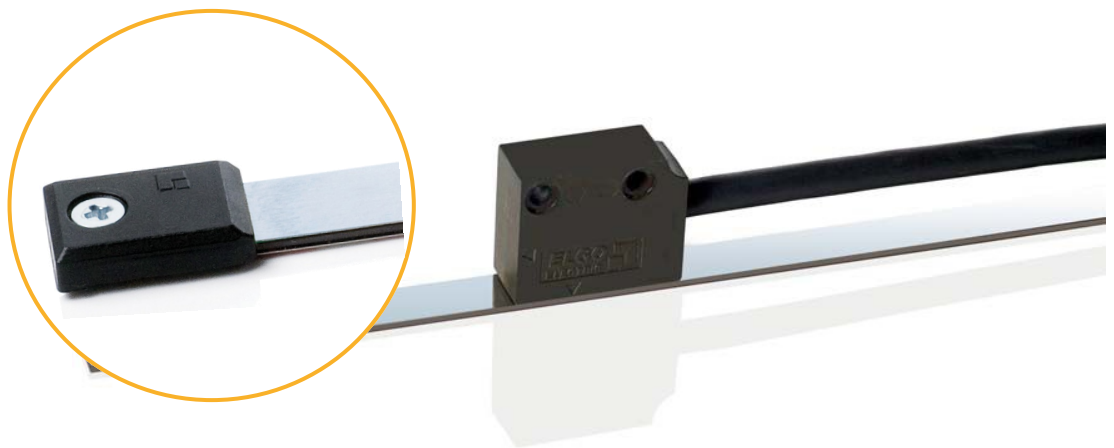


# Series *EMIX2* and *LMIX2*



Magnetic, incremental Length Measuring System

# EMIX2 and LMIX2 Magnetic Length Measuring System

**General:** The magnetic length measuring systems *EMIX2* and *LMIX2* extend the existing *EMIX/LMIX* product series and offer two substantial advantages:

1. Despite small dimensions, a translator is also integrated in the sensor head.
2. The position of the sensor can be mounted also vertically. This must be indicated with the order (Option L).

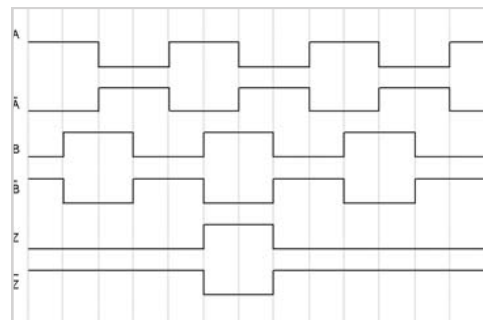
## Product features:

- With index pulse
- Resolution *EMIX2* = 0.01 mm (at 4-edge triggering)  
Resolution *LMIX2* = 0.025 mm (at 4-edge triggering) resp.  
0,1 mm (at single edge triggering)
- Repeating accuracy +/- 0.01 mm (*EMIX2*)
- Repeating accuracy +/- 0.025 mm (*LMIX2*)
- Small sensor with integrated translator
- Speed proportional output of square waves

## PIN- Assignment:

	Wires open Standard	D-SUB 9 pin Option D1 (ELGO Standard)	D-SUB 9 pin Option D2 (18.50 compatible)
Function	Colour	PIN-No.	PIN-No.
OV (GND)	White	1	1
5 VDC in / 10-30 VDC in	Brown	2	2
Channel A	Green	3	3
Channel B	Yellow	4	4
Channel Z	Black	8	NC
Channel A'	Violet	6	7
Channel B'	Orange	7	8
Channel Z'	Grey	9	NC
Screen/shield	PE	Connected to the housing	5

## Output pulses:



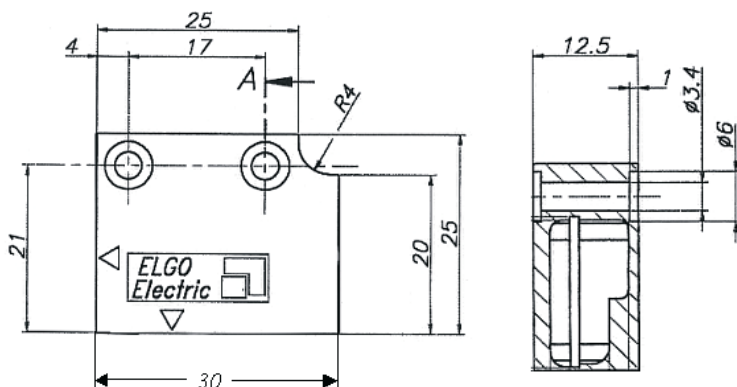
## Technical specifications EMIX2:

Resolution	0,01 mm at 4-edge-triggering
Distance tape/sensor	Max. 0,8 mm
Housing	Zinc die cast
Protection class sensor head	IP 67
Operating temperature	-10... +70 °C (-25... +85 °C) on request
Storage temperature	-25... +85 °C
Output current	Max. 20 mA per channel
Index pulse (every 2 mm)	Period depends on operation speed
System accuracy in $\mu\text{m}$ with 20 °C	+/- (20 + 20 x L) L = measuring lengths in meter
Necessary magnetic tape	MB20-20-10-1-R-XX.X
Supply / output levels 5 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	+/- 2,5 %, ripple < 50 mV
Consumption	max. 200 mA
Output frequency	100 kHz (per Channel)
Operation speed	Max. 4,0 m/sec
Max. wire length	10 m
Supply / output levels 10 - 30 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	Stabilized, ripple max. 5%
Consumption	Max. 150 mA
Output frequency	100 kHz (per Channel)
Operation speed	Max. 4,0 m/s
Max. wire length	50 m
Supply / output levels 10 - 30 VDC / 10 - 30 VDC output	
Tolerance / supply voltage	Stabilized, ripple max. 5 %
Consumption	Max. 150 mA
Output frequency	100 kHz (per Channel) at optimal evaluation
Operation speed	Max. 4,0 m/s (at optimal evaluation)
Max. wire length	30 m

## Technical specifications LMIX2:

Resolution	0,1 mm at 1-edge triggering 0,025 mm at 4-edge triggering
Distance tape/sensor	Max. 2,0 mm
Housing	Zinc die cast
Protection class sensor head	IP 67
Operating temperature	-10... + 70 °C (-25... + 85 °C) on request
Storage temperature	-25... + 85 °C
Output current	Max. 20 mA pro Kanal
Index pulse (every 5 mm)	Period depends on operation speed
System accuracy in $\mu\text{m}$ with 20 °C	+/- (25 + 20 x L) L = measuring lengths in meter
Nesessary magnetic tape	MB20-50-10-1-R-XX.X
Supply / output levels 5 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	+/- 2,5 %, ripple < 50 mV
Consumption	Max. 200 mA
Output frequency	40 kHz (per Channel)
Operation speed	Max. 4,0 m/sec
Max. wire length	10 m
Supply / output levels 10 - 30 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	stabilized, ripple max. 5 %
Consumption	Max. 150 mA
Output frequency	40 kHz (per Channel)
Operation speed	Max. 4,0 m/s
Max. wire length	50 m
Supply / output levels 10 - 30 VDC / 10 - 30 VDC output	
Tolerance / supply voltage	Stabilized, ripple max. 5 %
Consumption	Max. 150 mA
Output frequency	40 kHz (per Channel) at optimal evaluation
Operation speed	Max. 4,0 m/s at optimal evaluation
Max. wire length	30 m

## Dimensions:



## Accessories:

MB20-20-10-1-R	Magnetic tape for EMIX2, pole division 2 mm
MB20-50-10-1-R	Magnetic tape for LMIX2, pole division 5 mm
Magnetic tape end cap 10 mm - Set	2 end caps (10 mm) and 2 M3 screws; additional fixation in the radial and linear area, as well as a protection of the magnetic tape ends <u>Order No. 731031002</u>
Magnetic tape end cap 10 mm	1 end cap (10 mm) <u>Order No. 731031000</u>
AB10	Cover band 10 mm wide
AP1.0	Alu profile
FW2070	Carriage for E/LMIX2
FS2020-000-XXXX	Guiding rail for EMIX (incl. magnetic tape)
FS2050-000-XXXX	Guiding rail for LMIX (incl. magnetic tape)

## Order reference:

A B B B B - C C C C - D - E E - F F

- A Series**  
EMIX2  
LMIX2
- B Version**  
000 ELGO Standard  
001 First special version
- C Signal cable length in XX.X m**
- D Resolution**  
2 EMIX2= 0,01 mm (4-edge triggering)  
1 LMIX2= 0,025 mm (4-edge triggering)
- E Supply / Output level**  
00 10-30 V DC/10-30 V DC  
01 10-30 V DC/5V-TTL line driver  
11 5V DC/5V-TTL line driver
- F Options**  
D1 Connection D-SUB 9 pol (PIN-assignment ELGO-Standard)  
D2 Connection D-SUB 9 pol (PIN-assignment 18.50 replacement)  
L Vertical position (board and sensor installation)

For Example:

EMIX2 - 000 - 01.0 - 2 - 00 - D1  
A B B B - C C C - D - E E - F F

LMIX2 ELGO standard with 1,0 m signal cable length, 0,01 mm resolution, 10-30 V DC / 10-30 V DC supply, with D-SUB 9 pol connection.

Your order:

A B B B B - C C C C - D - E E - F F

