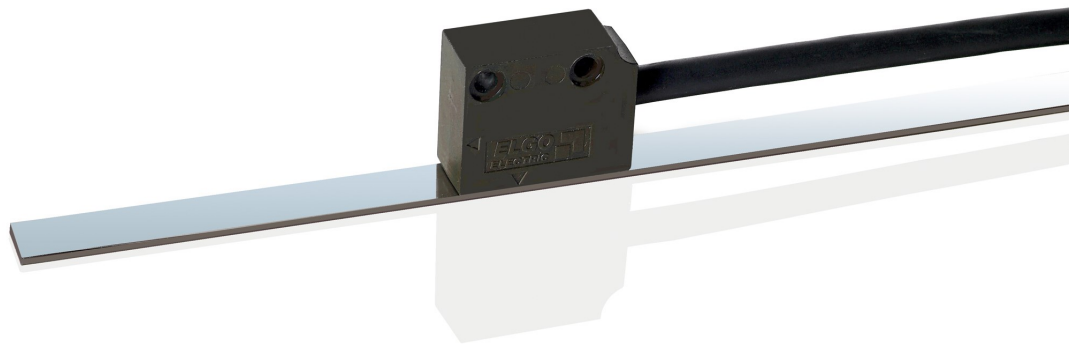


Series
EMIX2 / LMIX2



Magnetic Incremental Length Measuring Systems

EMIX2 / LMIX2 Magnetic Incremental Length Measuring Systems

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, the translator circuit is integrated in the sensor head.
2. The sensor can also be mounted vertically. If demanded please add "Option L" to the order.

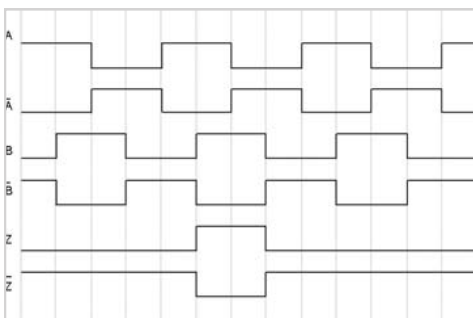
Product features:

- With index pulse output
- 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)
- Repeat accuracy +/- 0.01 mm (*EMIX2*)
- Repeat accuracy +/- 0.025 mm (*LMIX2*)
- Small sensor with integrated translator circuit
- Speed proportional square wave output

PIN Assignment:

	Wires open Standard	9 pin D-SUB Option D1 (ELGO Standard)	9 pin D-SUB Option D2 (18.50 assignment)	Round plug Option D3 (SKA-1 compatible)
Function	Colour	PIN No.	PIN No.	PIN No.
OV (GND)	White	1	1	1
5 VDC in / 10-30 VDC in	Brown	2	2	2
Channel A	Green	3	3	3
Channel B	Yellow	4	4	4
Channel Z	Black	8	N. C.	5
Channel A'	Violet	6	7	6
Channel B'	Orange	7	8	7
Channel Z'	Grey	9	N. C.	8
Screen/shield	PE	Connected to the housing	5	Connected to the housing

Output pulse diagram:



Application example: radial measurement



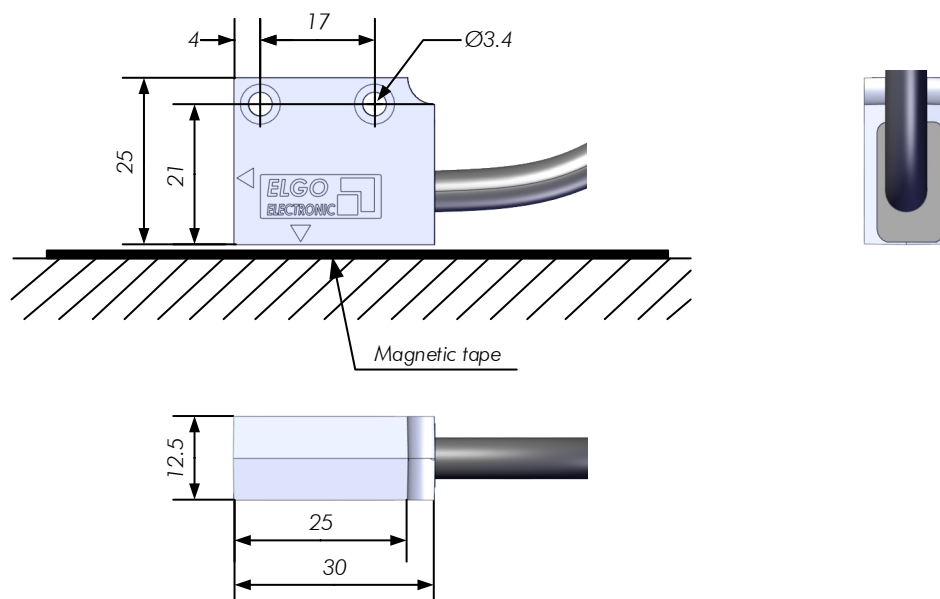
Technical specifications EMIX2:

Resolution	0.01 mm at 4 edge-triggering
Distance tape/sensor	max. 0.8 mm
Housing	Zinc die cast
Protection class sensor head	IP67
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 μm with 20 °C	+/- (20 + 20 x L) L = measuring length in meters
Necessary magnetic tape	MB20-20-10-1-R (pole pitch 2 mm)
Power supply 5 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	+/- 2.5 %, ripple < 50 mV
Consumption	max. 200 mA
Output frequency (per channel)	100 kHz
Maximum operation speed	4.0 m/sec
Maximum cable length	10 m
Power supply 10 - 30 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	Stabilized, ripple max. 5 %
Consumption	max. 150 mA
Output frequency (per channel)	100 kHz
Maximum operation speed	4.0 m/s
Maximum cable length	50 m
Power supply 10 - 30 VDC / output levels 10 - 30 VDC	
Tolerance / supply voltage	Stabilized, ripple max. 5 %
Consumption	max. 150 mA
Output frequency (per channel)	100 kHz at optimal evaluation
Maximum operation speed	4.0 m/s at optimal evaluation
Maximum cable 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	IP67
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 5 mm)	Period depends on operation speed
System accuracy in μm with 20 °C	+/- (25 + 20 x L) L = measuring length in meters
Necessary magnetic tape	MB20-50-10-1-R (pole pitch 5 mm)
Power supply 5 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	+/- 2.5 %, ripple < 50 mV
Consumption	max. 200 mA
Output frequency (per channel)	40 kHz
Maximum operation speed	4.0 m/sec
Maximum cable length	10 m
Power supply 10 - 30 VDC / 5 V-TTL line driver output	
Tolerance / supply voltage	stabilized, ripple max. 5 %
Consumption	max. 150 mA
Output frequency (per channel)	40 kHz
Maximum operation speed	4.0 m/s
Maximum cable length	50 m
Power supply 10 - 30 VDC / output levels 10 - 30 VDC	
Tolerance / supply voltage	Stabilized, ripple max. 5 %
Consumption	max. 150 mA
Output frequency (per channel)	40 kHz at optimal evaluation
Maximum operation speed	4.0 m/s at optimal evaluation
Maximum cable length	30 m

Dimensions:



Accessories:

Magnetic tape only for EMIX2
Magnetic tape only for LMIX2

MB20-20-10-1-R-XX.X* (*Article No. 731000015*)
MB20-50-10-1-R-XX.X* (*Article No. 731000002*)

*) please indicate the measuring length in XX.X meters

Magnetic tape end cap 10 mm - Set

Two end caps (10 mm) and two M3 screws;
additional fixation in the radial and linear area,
as well as a protection of the magnetic tape ends
Article No. 731031002

AP1.0
FW2070
FS-1000

Aluminium profile
Guide carriage for EMIX2 / LMIX2
Guiding rail for magnetic tape, length 1.0 m

Type designation:

AAAAA - B B B - 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 (at 4-edge triggering)
1 LMIX2= 0.025 mm (at 4-edge triggering)

E Supply / Output level

00 10-30 VDC / 10-30 V-HTL
01 10-30 VDC / 5 V-TTL line driver
11 5 VDC / 5 V-TTL line driver

F Options

D1 9-pin D-SUB plug (PIN assignment ELGO-Standard)
D2 9-pin D-SUB plug (PIN assignment 18.50)
D3 Round plug connector (for connection to SKA-1)
L Vertical position (PCB and sensor installation)

For Example:

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

EMIX2 (ELGO standard) with 1.0 m signal cable length, 0.01 mm resolution, 10-30 VDC supply / 10-30 VDC output levels and with a 9 pin D-SUB connector.

Your order:

AAAAA - B B B - C C . C - D - E E - F F

