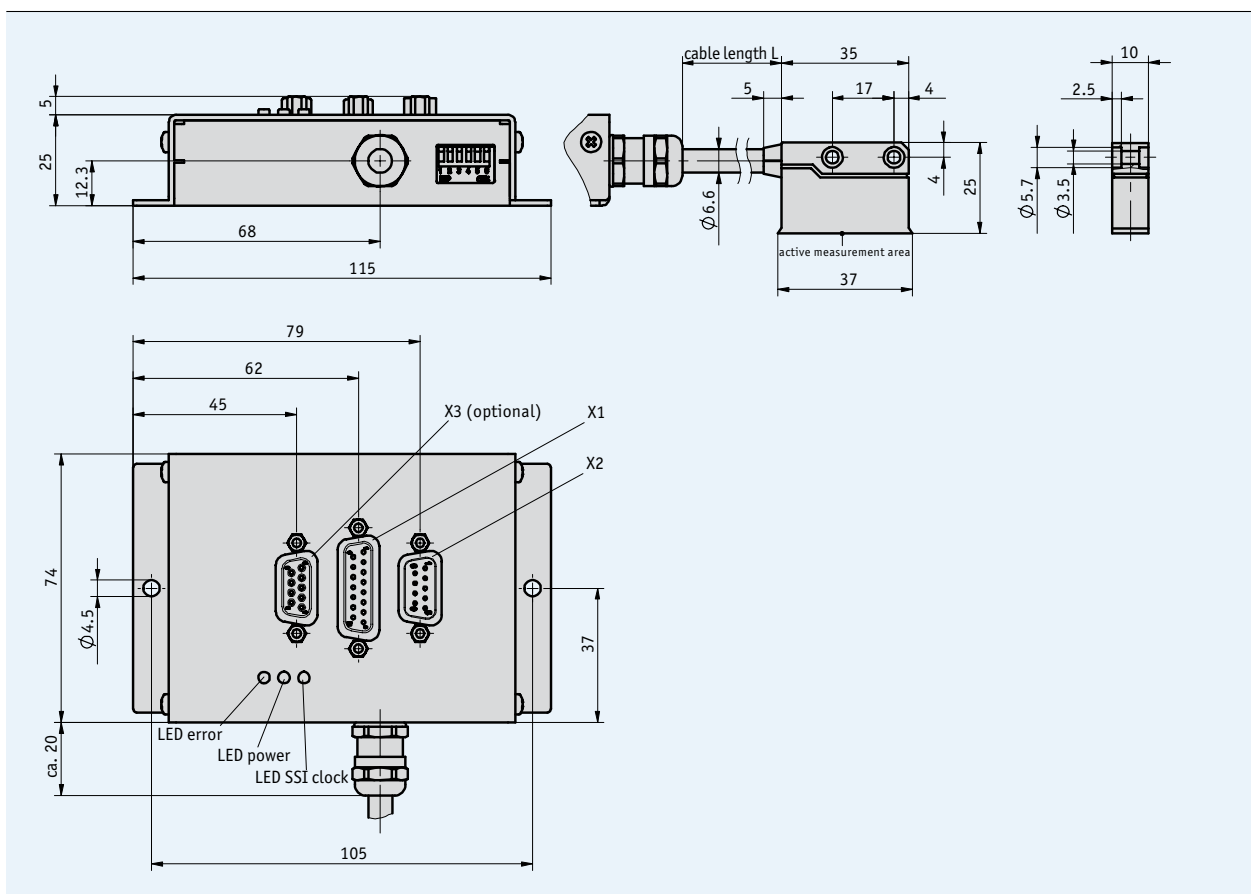


## Profile

- Max. resolution 0.2  $\mu\text{m}$  (LD)
- Repeat accuracy  $\pm 5 \mu\text{m}$
- SSI or RS485 interface
- Scale MBA110
- Max. sensor/band reading distance 0.4 mm
- Compact, absolutely measuring unit with hard-wired sensor
- Maintenance-free backup battery
- Optional digital LD interface
- Optional analog 1  $V_{SS}$  interface (period length 1 mm)




5.1

## Mechanical data

Feature	Technical data	Additional information
System accuracy	(0.025 + 0.01 x L) mm, L in m	at T <sub>U</sub> = 20 °C; (L= length per each meter started)
Repeat accuracy	± 5 µm	
Resolution	SSI, 1 µm; fix LD, max. 0.2 µm 1 V <sub>SS</sub> period length 1 mm	selectable via DIP switch
Sensor/band reading distance	0.1 ... 0.4 mm	over the whole measuring length
Measuring length	4000 mm	others on request
Housing translation Module	sheet steel	electrogalvanized
Housing sensor	zinc die casting	
Cable length of sensor	max. 6 m	
Sensor cable sheath	PVC	
Drag chain suitability	min. 1000000 at bending radius = 8x cable diameter and 20 °C	
Travel speed of magnetic sensor	max. 0.5 m/s SSI max. 8 m/s	absolute value
Protection category	IP20 (translation module) IP67 (sensor)	according to DIN VDE 0470 according to DIN 40050
Humidity of translation module	max. 95 % rh	condensation inadmissible
Humidity of sensor	max. 100 % rh	condensation permitted
Operating temperature	0 ... +60 °C	
Storage temperature	-20 ... +70 °C	
Weight	approx. 420 g	

## Travel speed

Resolution (µm)	Travel speed V <sub>max</sub> (m/s)					
	0.5	1	10	12.5		
	0.80	4.00	8.00	8.00	0.15	0.06
	0.32	1.60	8.00	8.00	0.06	0.02
	0.15	0.72	7.20	8.00	3.20	1.25
	0.06	0.32	3.20	4.00	4.00	1.60
	0.02	0.12	1.25	1.60		
Pulse interval (µs)	0.2	0.5	1.1	2.5	6.3	
Counting frequency (kHz)	1250.00	500.00	230.00	100.00	40.00	

 The internal translation module can generate fast counting pulses, the lengths of which are limited by the pulse interval. The follower electronics must be adjusted accordingly. Select the pulse interval in advance, if necessary.

## Electrical data

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	with reverse-polarity protection
Current consumption	<150 mA	
Backup battery	service life ~ 10 years	at TU = 20 °C; according to manufacturer's specification
EMV	DIN EN 61000-6-2 DIN EN 61000-6-4	

## Pin assignment

### connector X1

SSI	SSI + 2xLD	PIN
N.C.	A	1
N.C.	B	2
+24 V DC	+24 V DC	3
0 V	0 V	4
SSI_DATA	SSI_DATA	7
/SSI_DATA	/SSI_DATA	8
N.C.	/A	9
N.C.	/B	10
SSI_GND	SSI_GND	12
SSI_CLK	SSI_CLK	14
/SSI_CLK	/SSI_CLK	15
N.C.	N.C.	5, 6, 11, 13

### connector X2

RS485	RS485 + LD	PIN
N.C.	A	1
N.C.	B	2
N.C.	N.C.	3
+24 V DC	+24 V DC	4
0 V	0 V	5
N.C.	/A	6
N.C.	/B	7
DÜA	DÜA	8
DÜB	DÜB	9

### connector X3 (optional)

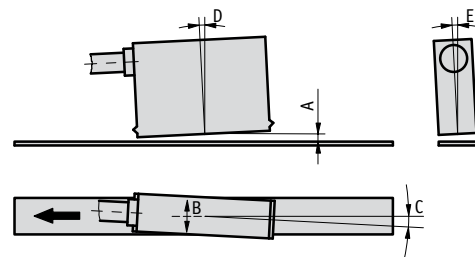
1 V <sub>SS</sub>	PIN
sin	1
/sin	2
cos	3
ANA_GND	7
/cos	8
N.C.	4, 5, 6, 9

## Mounting instruction

When installing the sensor and magnetic band, always ensure that both system components are correctly aligned. When mounting, the arrow mark must point to the same direction as the cable outlet.

<b>A</b> , Sensor/band reading distance	0.1 ... 0.4 mm
<b>B</b> , Lateral offset	<±0.5 mm
<b>C</b> , Misalignment	<±1°
<b>D</b> , Longitudinal tilt	<±1°
<b>E</b> , Lateral tilt	<±2°

Sensor/band reading distance (symbolic sensor representation)



## Order

### Order table

Feature	Order data	Specifications	Additional information
Sensor cable length	... A	1 ... 6 m in steps of 1 m	
Interface digital	LD	Line Driver (RS422)	
	2xLD	2xLine Driver (RS422)	
	0	without	
Resolution digital	... C	0.2, 1, 10, 12.5	
Pulse interval (µs)	... D	0.2, 0.5, 1.1, 2.5, 6.3	
Interface analog	1V <sub>SS</sub>	1 V <sub>SS</sub>	
	0	without	

### Order code

ASA110H -  -  -  -  -  -

**Scope of delivery:** ASA110H, User information, grounding material

**Accessories:**  
Mating plug

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**Additional information:**

Short Description, Technical Details  
Product Overview

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