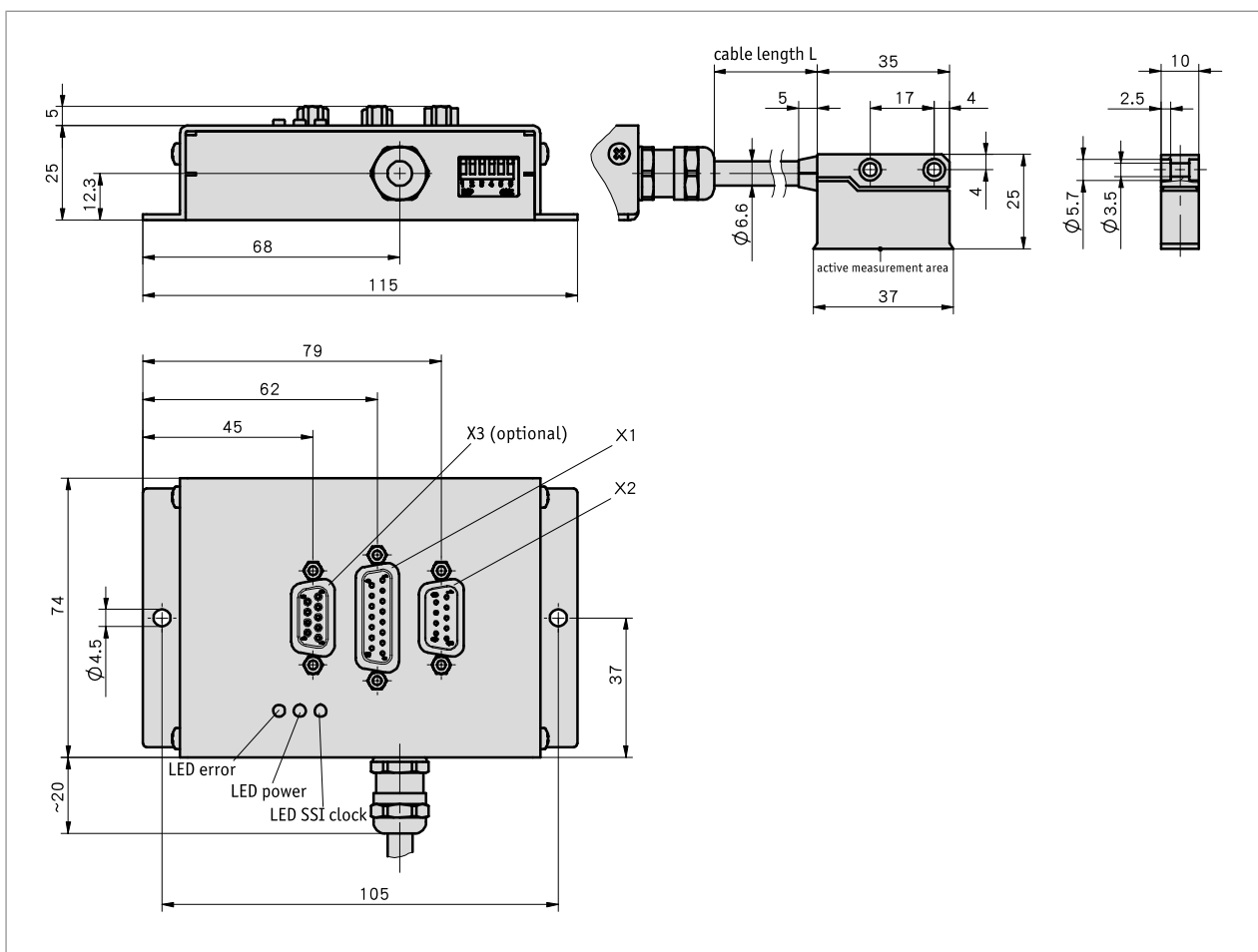
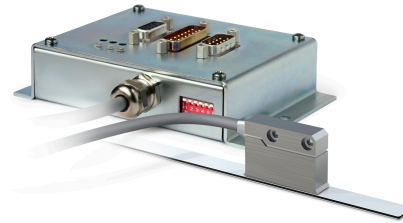


Profile

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



Mechanical data

Feature	Technical data	Additional information
Housing	steel sheet zinc die-cast	electrogalvanized sensor
Cable length	$\leq 6 \text{ m}$	
Cable sheath	PVC suitable for drag-chain use	$\geq 1.000.000$ with bending radius = $8 \times$ cable diameter and $20 \text{ }^\circ\text{C}$

Travel speed

Resolution [μm]	Travel speed Vmax [m/s]					
	0.5	0.80	0.32	0.15	0.06	0.02
1	4.00	1.60	0.72	0.32	0.12	
10	8.00	8.00	7.20	3.20	1.25	
12.5	8.00	8.00	8.00	4.00	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 downstream 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 $\pm 20\%$	reverse polarity protection
Current consumption	<150 mA	
Battery service life	10 Year(s) at $T_U = 20^\circ\text{C}$	according to manufacturer specification

System data

Feature	Technical data	Additional information
Resolution	1 μm , fixed	SSI
	$\leq 0.2\ \mu\text{m}$	LD
	1 mm, period length	$\leq 1\ V_{SS}$
System accuracy	$\pm(0.025 + 0.01 \times L)$ mm, L in m at $T_U = 20^\circ\text{C}$	L = length per meter or part thereof
Repeat accuracy	$\pm 5\ \mu\text{m}$	
Measuring range	4000 mm	others on request
Travel speed	$\leq 0.5\ \text{m/s}$	SSI absolute value
	$\leq 8\ \text{m/s}$	

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	0 ... 60 $^\circ\text{C}$	
Storage temperature	-20 ... 70 $^\circ\text{C}$	
Relative humidity	$\leq 95\%$	translation module, condensation inadmissible
	$\leq 100\%$	sensor, condensation admissible
EMC	EN 61000-6-2	interference resistance / immission
	EN 61000-6-4	emitted interference / emission
Protection category	IP20	EN 60529 (translation module)
	IP67	EN 60529 (sensor)

pin assignment

■ X1 plug

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

■ X2 plug

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

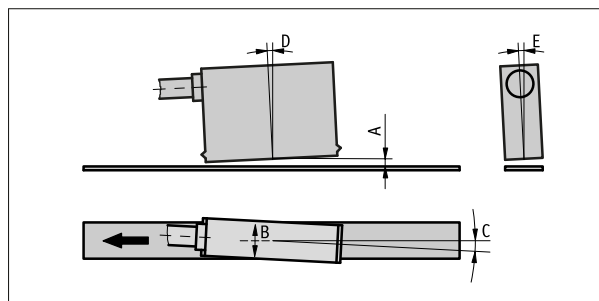
■ X3 plug

$\leq 1 V_{SS}$	PIN
sin	1
/sin	2
cos	3
nc	4
nc	5
nc	6
ANA_GND	7
/cos	8
nc	9

Hint for mounting

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

A, Sensor/tape reading distance	≤ 0.4 mm
B, Lateral offset	± 0.5 mm
C, Alignment error	$\pm 1^\circ$
D, Longitudinal inclination	$\pm 1^\circ$
E, Lateral inclination	$\pm 2^\circ$



Symbolic representation

Order

■ Ordering information

One or more system components are required:

Magnetic tape MBA110/1

www.siko-global.com


■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
Cable length	A ...	01.0 ... 06.0 m, in intervals of 1 m	
digital interface	B LD 2xLD 0	Line Driver (RS422) 2x Line Driver (RS422) without	
digital resolution	C ...	0.2, 1, 10, 12.5 in μ m	

Feature	Ordering data	Spezifikation	Additional information
Pulse interval	D ...	0.2, 0.5, 1.1, 2.5, 6.3 in μs	
Analog interface	E $\frac{1V_{SS}}{0}$	1 V_{PP} without	

■ Order key





Scope of delivery:
ASA110H, Installation Instructions, Sensor fastening set



Accessories you can find:
Overview, Mating connector www.siko-global.com