

LINECOD

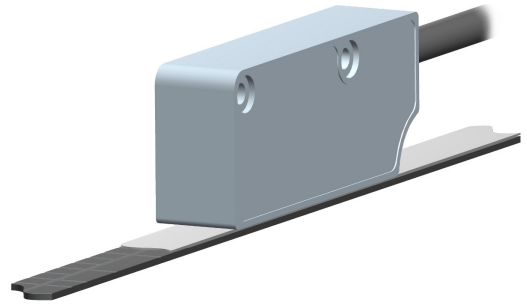
High performance absolute linear encoder

Series

SMA2



- BiSS & SSI interface
- Resolution up to 1 μm
- Additional incremental track for speed feedback
- Measuring length up to 8100 mm
- Large mounting tolerances
- Unaffected by dust, debris or liquids



SMA2

ENVIRONMENTAL SPECIFICATIONS

Protection:	IP67
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Housing material:	anticorodal, UNI EN AW-6082
Electrical connection:	M12 8 pin inline plug or cable output 2.0 m
Gap between sensor/tape-ring:	0,1 ÷ 0,6 mm
Travel speed (mechanical):	10 m/s max.
Measurement length:	8,1 m max.
	Measurement length = tape length - 55 mm

ELECTRICAL SPECIFICATIONS

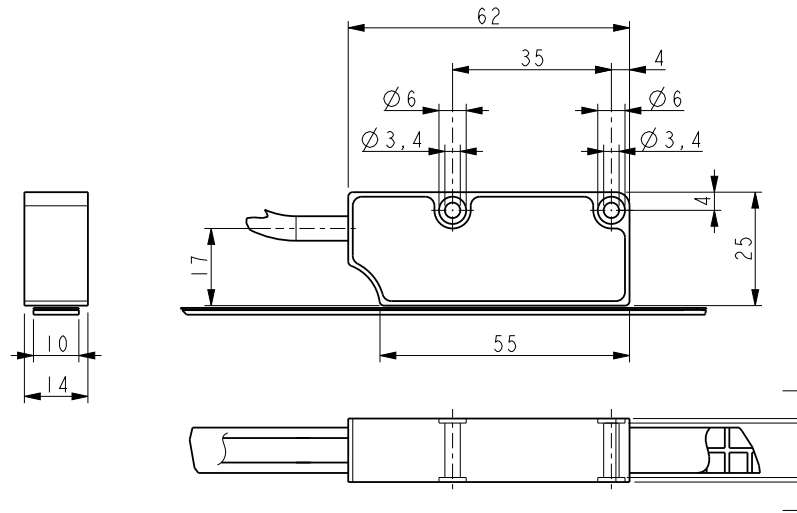
Resolution:	50, 10, 5, 2, 1 μm
Counting frequency:	see table 1
Sensor accuracy:	$\pm 2 \mu\text{m}$ max.
Repeat accuracy:	± 1 increment
Output circuits:	absolute: SSI, BiSS-C incremental: NPN o.c. AB
Power supply:	+5Vdc $\pm 5\%$
Consumption:	1 W max.
Output current (each channel):	40 mA max.
EMC:	acc. to EN 61000-6-2 level 3

ACCESSORIES

MTA2:	Magnetic tape
E-M12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-5:	cordset with 5 m cable
EC-M12F8-LK-M8-10:	cordset with 10 m cable
KIT LKM-1440:	Set of tape terminals

Resolution code	Max. travel speed (m/s) (*)	Max. counting frequency of AB (kHz)
50	7	73
10	7	350
5	7	580
2	2.8	580
1	1.4	582

(*) min. edge distance = 0,25 μs (4MHz). Double speed possible with reduced sensor accuracy ($\pm 4 \mu\text{m}$)



SMA2

Order code - Sensor

SMA2	-	XX a	-	X b	-	XX c	-	XXX d	-	/Sxxx e
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<p>a OUTPUT CIRCUIT GG = SSI, Gray MSB aligned G1 = SSI, Gray MSB aligned + AB incremental BG = SSI, Binary MSB aligned I7 = BiSS-C interface + AB incremental</p> <p>b POWER SUPPLY 1 = +5Vdc ±5%</p>	<p>c RESOLUTION 50 = 50 µm 10 = 10 µm 5 = 5 µm 2 = 2 µm 1 = 1 µm</p>	<p>d CONNECTIONS L2 = cable output 2 m Lx = cable output x m M0,5 = 0,5 m cable + M12 8 pin inline plug M2 = 2 m cable + M12 8 pin inline plug</p>
		e CUSTOM VERSION

Order code - Magnetic tape

MTA2	-	XX a	-	XX b	-	X c	-	/Sxxx e
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<p>a TAPE LENGTH 1 = 1 m 2 = 2 m 3 = 3 m 4 = 4 m 5 = 5 m 6 = 6 m 7 = 7 m 8,1 = 8,1 m</p>	<p>b ACCURACY CLASS 40 = ±40 µm</p>	<p>c COVER STRIP 0 = not supplied 1 = supplied</p>
		d CUSTOM VERSION