

Series

SMA2



- BiSS & SSI interface
- Resolution up to 1  $\mu\text{m}$
- Additional incremental output for speed feedback
- Error bit output
- Measuring length up to 8,1 m
- Large mounting tolerances
- Unaffected by dust, debris or liquids with IP67



SMA2

### ENVIRONMENTAL SPECIFICATIONS

Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
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:	Lika Hi-flex cable M8 2,0 m or M12 8 pin inline plug
Gap between sensor/tape:	0,1 $\div$ 0,6 mm
Travel speed (mechanical):	10 m/s max.
Measurement length:	8165 mm max.
	Measurement length = tape length - 55 mm

### ELECTRICAL SPECIFICATIONS

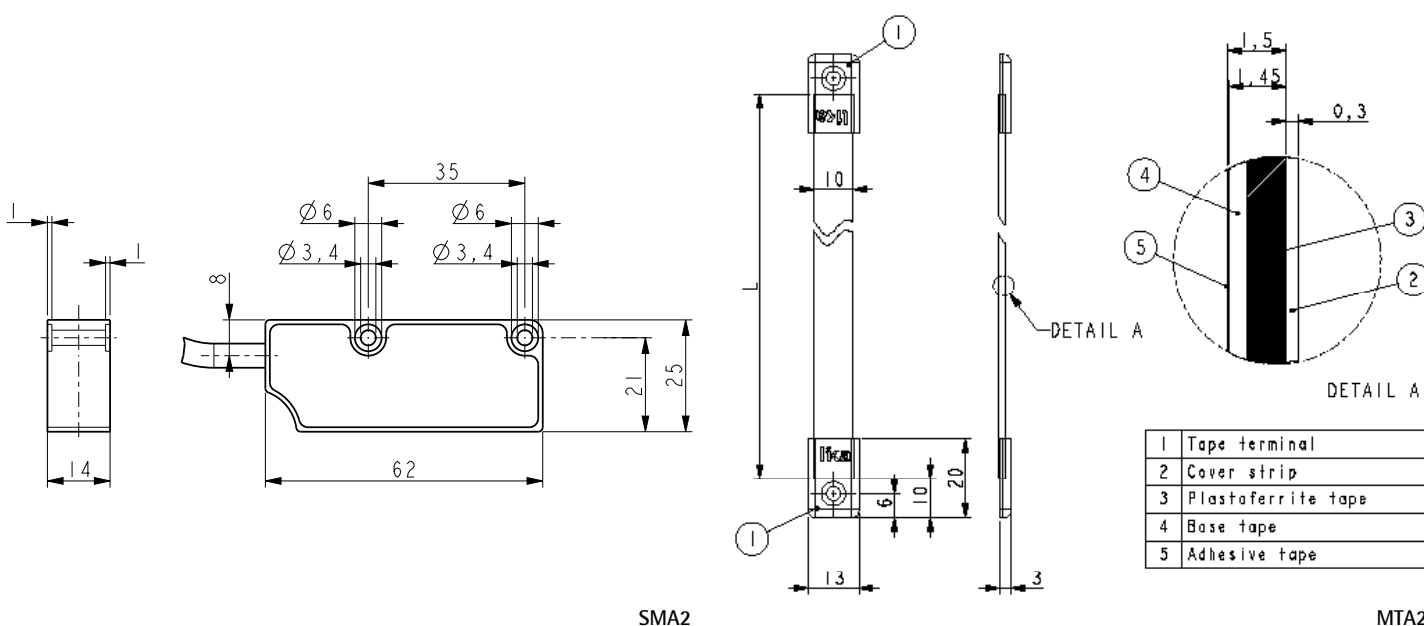
Resolution:	50, 10, 5, 2, 1 $\mu\text{m}$
Sensor accuracy:	$\pm 2 \mu\text{m}$ max.
Repeat accuracy:	$\pm 1$ increment
Output circuits:	absolute: SSI, BiSS-C incremental: NPN o.c. (AB)
Position refresh (absolute):	33 $\mu\text{s}$
Counting frequency (incremental):	see table 1
Power supply:	+5Vdc $\pm 5\%$
Power consumption:	1 W max.
Protection:	against short-circuit
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 (10 pcs)

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	580

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



Order code - Sensor

SMA2	-	XXX a	-	XX b	-	XXX c	/Sxxx d
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<p><b>a) OUTPUT CIRCUIT</b>                  GG1 = SSI, Gray MSB aligned, +5Vdc ±5%                  G11 = SSI, Gray MSB aligned + AB incremental, +5Vdc ±5%                  BG1 = SSI, Binary MSB aligned, +5Vdc ±5%                  SC1 = BiSS-C interface + AB incremental, +5Vdc ±5%</p>	<p><b>b) RESOLUTION</b>                  50 = 50 µm                  10 = 10 µm                  5 = 5 µm                  2 = 2 µm                  1 = 1 µm</p>	<p><b>c) CONNECTIONS</b>                  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>
		<b>d) CUSTOM VERSION</b>

Order code - Magnetic tape

MTA2	-	XX a	-	XX b	-	X c	/Sxxx d
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<p><b>a) TAPE LENGTH</b>                  1 = 1 m                  2 = 2 m                  3 = 3 m                  4 = 4 m</p>	<p><b>b) ACCURACY CLASS</b>                  40 = ±40 µm</p>	<p><b>c) COVER STRIP</b>                  1 = supplied</p>
		<b>d) CUSTOM VERSION</b>

Document release	Date	Description
1.1	29.10.2020	MTA2 order code updated (removed 0 from cover strip)