

# ROTACOD

Absolute encoder for curved axes

Series

SMLA • MTLA



- Absolute contactless sensing
- Detection of arcs and curved axes up to 360°
- SSI & BiSS output with alarm bits
- Self-fixing tape on any diameter >150mm
- Curved structures available on request
- Ultra fast position refresh
- IP68 protection



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## ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F)
Protection:	IP68

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Housing materials:	anticorrosive, UNI EN AW-6082
Electrical connections:	M12 8 pin inline plug or Lika Hi-flex cable 1,0 m
Gap sensor-tape:	1 ± 0,2 mm
Shaft rotational speed:	15000 rpm max. (mechanical)
Travel speed:	16 m/s
Measurement length:	tape length - 10 mm
Option:	• additional cable

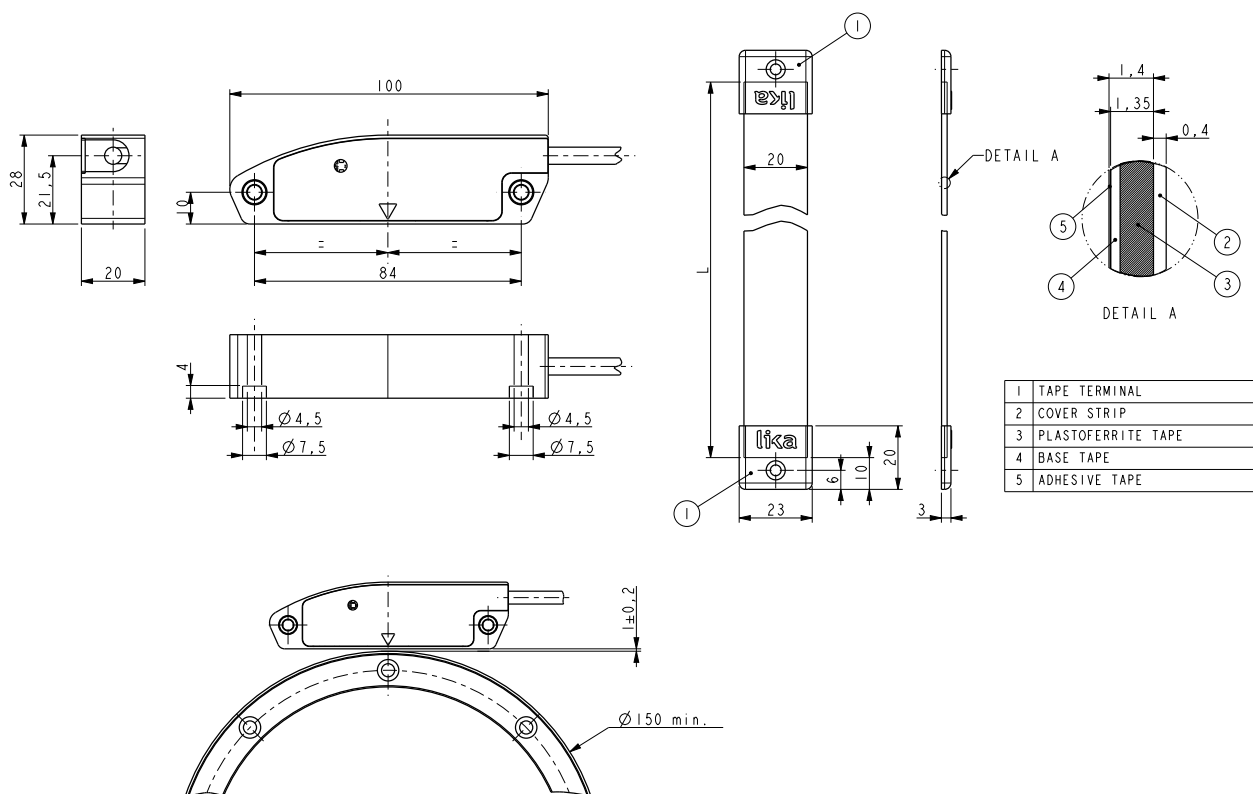
## ELECTRICAL SPECIFICATIONS

Resolution:	0,097 mm (4096 steps @ 400 mm) 0,048 mm (8192 steps @ 400 mm) 0,024 mm (16384 steps @ 400 mm)
Accuracy (sensor + tape):	± 300µm typ. (max. ± 450µm)
Repeatability:	± 1 count
Output circuits:	BiSS-C, clock rate 10MHz max. SSI, MSB aligned, clock rate max 2MHz Position refresh up to > 16 m/s
Output code:	Gray, Binary
Power supply:	+5Vdc ± 5%, +10Vdc ÷ +30Vdc
Protection:	against inversion of polarity (except 5V version) and short-circuit
EMC:	electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4
Functions:	• Counting direction • Zero setting /Preset

## ACCESSORIES

EM12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-5:	cordset 5 m, M12 8 pin connector
EC-M12F8-LK-M8-10:	cordset 10 m, M12 8 pin connector
LKM-1439:	tape terminals

Specifications subject to changes without prior notice



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Order code - Sensor

SMLA	-	XXX a	-	XX b	-	XXX c	-	/Sxxx d
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<p><b>a) OUTPUT CIRCUITS</b>  GG1 = SSI, Gray MSB aligned, +5Vdc ±5%  GG2 = SSI, Gray MSB aligned, +10Vdc +30Vdc  BG1 = SSI, Binary MSB aligned, +5Vdc ±5%  BG2 = SSI, Binary MSB aligned, +10Vdc +30Vdc  SC1 = BiSS-C mode, +5Vdc ± 5%  SC2 = BiSS-C mode, +10Vdc +30Vdc</p>	<p><b>b) RESOLUTION</b>  06 = 0,097 mm (4096 steps @ 400 mm)  07 = 0,048 mm (8192 steps @ 400 mm)  08 = 0,024 mm (16384 steps @ 400 mm)</p>	<p><b>c) CONNECTIONS</b>  L1 = cable output 1 m  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>	<p><b>d) CUSTOM VERSION</b></p>
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Order code - Magnetic tape

MTLA	-	XXX a	-	XX b	X c	/Sxxx d
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<p><b>a) TAPE LENGTH</b>  400 = 400 mm</p>	<p><b>b) ACCURACY CLASS</b>  50 = ± 50 µm/m</p>	<p><b>c) COVER STRIP</b>  1 = supplied</p>	<p><b>d) CUSTOM VERSION</b></p>
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