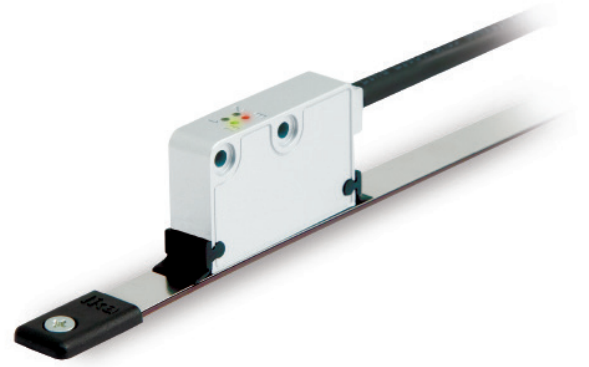




- Magnetic encoder for linear and torque motors
- Sine-Cosine 1Vpp real-time output
- Unaffected by dust, debris or liquids, IP67
- Status LED for clearance error and A, B signals
- Optional tape cleaning wipers
- Lika Hi-flex cable



SMS11 • SMS21

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

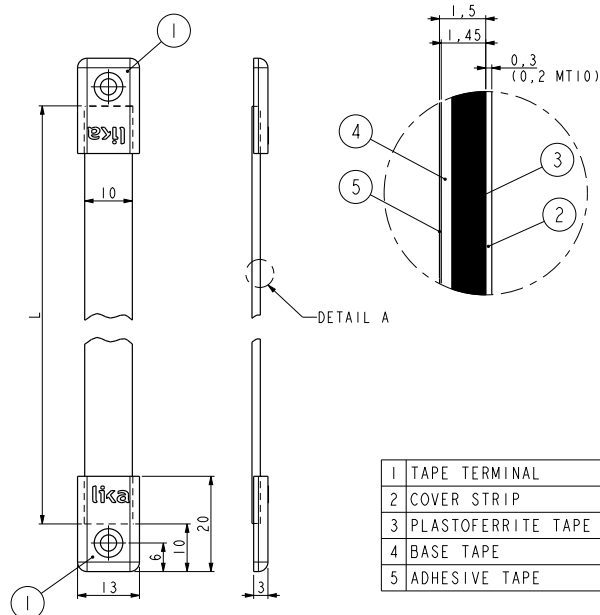
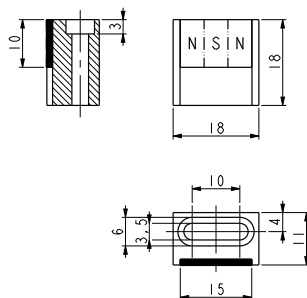
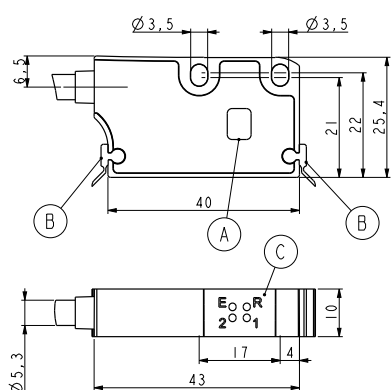
Dimensions:	see drawing
Housing material:	die cast aluminium, UNI EN AC-46100
Electrical connections:	Lika Hi-flex cable M8, 2,0 m or M12 8 pin inline plug
Gap between sensor/tape (without cover strip):	SMS11: 0,1 ÷ 0,5 mm SMS21: 0,1 ÷ 1,0 mm
Travel speed (mechanical):	16 m/s max.
Measurement length:	Tape length -5 mm each side

ELECTRICAL SPECIFICATIONS

Resolution:	SMS11: 1000 µm SMS21: 2000 µm
Sensor accuracy:	max. 1% of period length
Repeat accuracy:	±1 increment
Output circuits:	1Vpp
Output signals:	sine/cosine, ABO /ABO
Counting frequency:	18 kHz max.
Power supply:	+5Vdc ±5%
Power consumption:	70 mA
Protection:	against short-circuit
EMC:	acc. to EN 61000-6-2 level 3

ACCESSORIES

MTI-0100:	Magnetic tape for SMS11
MTI-0200:	Magnetic tape for SMS21
LKM-1309/1:	Reference pole support for SMS11
LKM-1309/2:	Reference pole support for SMS21
KIT LKM-1440:	Set of tape terminals (10 pcs)
KIT WIPERS:	Wipers for SMExx/SMSxx (10 pcs)
E-M12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-050:	cordset 5 meters with M12 conn.
EC-M12F8-LK-M8-100:	cordset 10 meters with M12 conn.



A	Reference sensor "R"
B	Dust wipers
C	Diagnostic LEDs
E:	Gap/Speed error (red)
R:	Reference detection (green)
1:	Output A (green)
2:	Output B (green)

1	TAPE TERMINAL
2	COVER STRIP
3	PLASTOFERRITE TAPE
4	BASE TAPE
5	ADHESIVE TAPE

SMS11 • SMS21

LKM-1309/1 • LKM-1309/2

MTI-0100-10

Order code - Sensor

SMS11	-	XX	-	X	-	XXXX	/Sxxx
SMS21		(a)		(b)		(c)	(d)

<p>(a) OUTPUT CIRCUITS & POWER SUPPLY V1 = 1 Vpp sine/cosine, +5Vdc ±5%</p>	<p>(b) INDEX N = without I = every 1 or 2 mm (RS422 level) R = unique reference signal (RS422 level) K = every 1 or 2 mm (1Vpp level) T = unique reference signal (1Vpp level)</p>	<p>(c) CABLE TYPE & LENGTH L020 = cable output 2 m Lxx0 = cable out. x m (max. length 10m) M005 = 0,5 m cable + M12 inline plug M020 = 2 m cable + M12 inline plug</p>	<p>(d) CUSTOM VERSION</p>
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Order code - Magnetic tape

MTI	-	XXXX	-	XX	-	XXXXXX	-	X	-	X	-	X	-	XXX	/Sxxx
		(a)		(b)		(c)		(d)		(e)		(f)		(g)	(h)

<p>(a) CODING 0100 = 1 mm pole pitch (ex MT10) 0200 = 2 mm pole pitch (ex MT20)</p>	<p>(b) WIDTH 10 = 10 mm</p>	<p>(c) LENGTH 001000 = 1 m 002000 = 2 m 004000 = 4 m 010000 = 10 m 020000 = 20 m 030000 = 30 m 050000 = 50 m 100000 = 100 m</p>	<p>(d) BIADHESIVE B = supplied N = not supplied</p>	<p>(e) PRINTING P = standard S = custom</p>	<p>(f) COVER STRIP C = supplied N = not supplied</p>	<p>(g) ACCURACY CLASS 100 = ±85 µm/m 050 = ±35 µm/m (up to 30 m) 010 = ±8 µm/m (up to 10 m)</p>	<p>(h) CUSTOM VERSION</p>
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Document release	Date	Description
1.0	December 2023	New order code