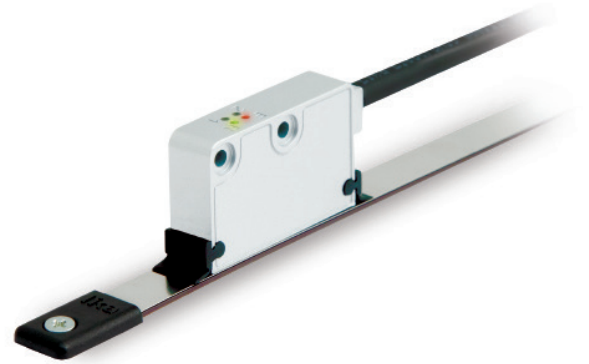




- 2 integrated limit switch sensors
- Magnetic encoder for linear motors
- Sine-cosine 1Vpp real-time output
- Unaffected by dust, debris or liquids, IP67
- Status LED for clearance error and A, B signals
- Reference and limit switch marks to be installed along the magnetic tape
- Optional tape cleaning wipers



SMS12

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

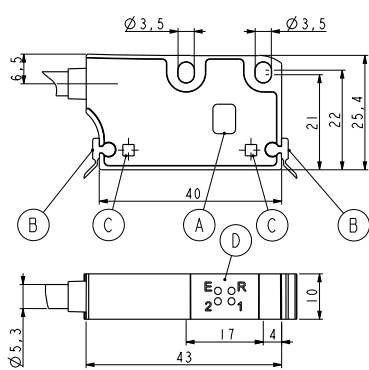
Dimensions:	see drawing
Housing material:	die cast aluminium, UNI EN AC-46100
Electrical connections:	Lika Hi-flex cable M10, 2,0 m
Gap between sensor/tape (without cover strip):	0,1 ÷ 0,5 mm
Travel speed (mechanical):	max 16 m/s
Measurement length:	Tape length -5 mm each side

ELECTRICAL SPECIFICATIONS

Resolution:	1000 µm
Sensor accuracy:	max. 1% of period length
Repeat accuracy:	±1 increment
Output circuits:	1Vpp
Output signals:	sine/cosine, A/B0 /A/B0 + LS1, LS2 (o.c. 50 mA)
Counting frequency:	18 kHz
Power supply:	+5Vdc ±5%
Power consumption:	80 mA
Protection:	against short-circuit
EMC:	acc. to EN 61000-6-2 level 3

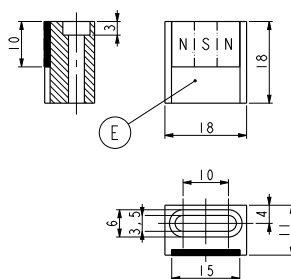
ACCESSORIES

MTI-0100:	Magnetic tape
LKM-1309/1:	Reference pole support
LKM-1309/LS	Limit switch support
KIT LKM-1440:	Set of tape terminals (10 pcs)
KIT WIPERS:	Wipers for SMExx/SMSxx (10 pcs)



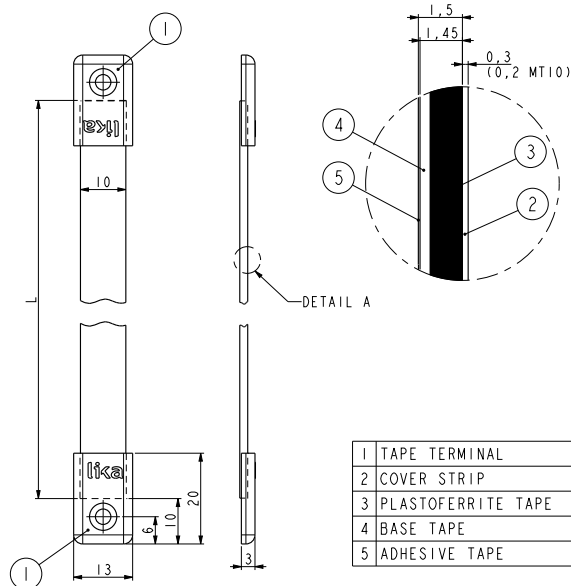
A	Reference sensor "R"
B	Dust wipers
C	Limit switch sensors
D	Diagnostic LEDs
E	Gap/Speed error (red)
R	Reference detection (green)
1	Limit switch (green)
2	Limit switch (green)

SMS12



E | Tape position on LKMI309/LS

LKM-1309/1 • LKM-1309/LS



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

MTI-0100-10

Order code - Sensor

SMS12	-	XX	-	X	-	XXXX	/Sxxx
		(a)		(b)		(c)	(d)

(a) OUTPUT CIRCUITS & POWER SUPPLY

V1 = 1 Vpp sine/cosine, +5Vdc ±5%

(b) INDEX

R = unique reference signal (RS422 level)
T = unique reference signal (1Vpp level)

(c) CABLE TYPE & LENGTH

L020 = cable output 2 m
L050 = cable output 5 m
Lxx0 = cable out. x m (max. length 10m)

(d) CUSTOM VERSION

Order code - Magnetic tape

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

(a) CODING

0100 = 1 mm pole pitch (ex MT10)

(b) WIDTH

10 = 10 mm

(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

(d) BIADHESIVE

B = supplied
N = not supplied

(e) PRINTING

P = standard
S = custom

(f) COVER STRIP

C = supplied
N = not supplied

(g) ACCURACY CLASS

100 = ±85 µm/m
050 = ±35 µm/m (up to 30 m)
010 = ±8 µm/m (up to 10 m)

(h) CUSTOM VERSION

Document release	Date	Description
1.0	December 2023	New order code