



- 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

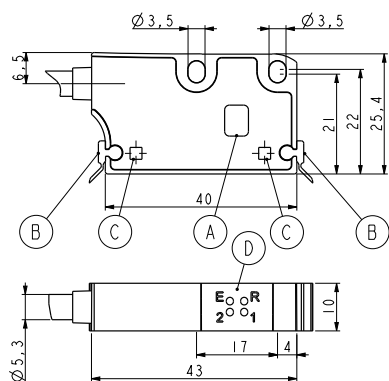
Dimensions:	see drawing
Housing material:	die cast aluminium, UNI EN AC-46100
Electrical connections:	Lika Hi-flex cable M10, 2,0 m
Gap between sensor/tape (without cover strip):	0,1 ÷ 0,5 mm
Travel speed (mechanical):	max 16 m/s
Measurement length:	Tape length -5 mm each side

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

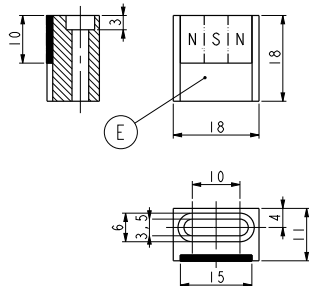
ACCESSORIES

MT10:	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)



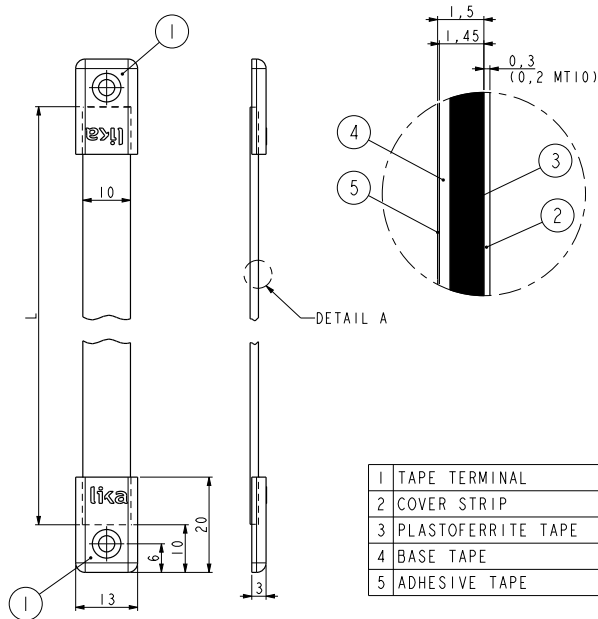
A	Reference sensor "R"
B	Dust wipers
C	Limit switch sensors
D	Diagnostic LEDs
E	Gap/Speed error (red)
R	Reference detection (green)
1	Limit switch (green)
2	Limit switch (green)

SMS12



E	Tape position on LKM1309/LS
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LKM-1309/1 • LKM-1309/LS



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

MT10

Order code - Sensor

SMS12	-	X a	-	X b	-	X c	-	XX d	/Sxxx e
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a OUTPUT CIRCUITS

V = sin/cos 1Vpp

b POWER SUPPLY

1 = +5Vdc ±5%

c INDEX

R = unique reference signal (RS422 level)

T = unique reference signal (1Vpp level)

d CONNECTIONS

L2 = cable output 2 m

L5 = cable output 5 m

Lx = cable output x m

e CUSTOM VERSION

Order code - Magnetic tape

MT10	-	XXX a	-	XXX b	-	X c	-	/Sxxx d
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a LENGTH

1 = 1,0 m 20 = 20,0 m
 2 = 2,0 m 30 = 30,0 m
 4 = 4,0 m 50 = 50,0 m
 10 = 10,0 m 100 = 100,0 m

b ACCURACY CLASS

100 = ±85 µm/m
 50 = ±35 µm/m (up to 30 m)
 10 = ±8 µm/m (up to 10 m)

c COVER STRIP

0 = not supplied
 1 = supplied

d CUSTOM VERSION