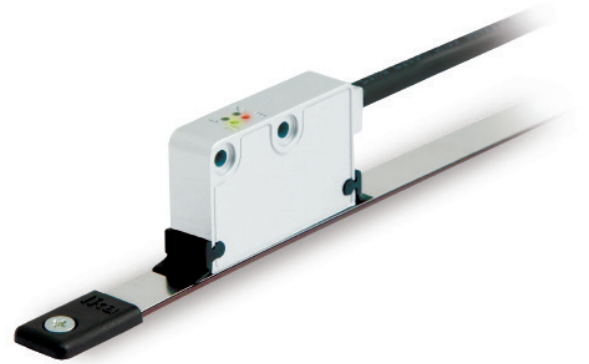




- Two integrated limit switch sensors
- High resolution encoder for linear measurements
- High speed and protection degree
- Speed proportional output signals
- Resolution up to 1 μm
- Reference and limit switch marks to be installed along the magnetic tape
- Optional tape cleaning wipers



SME22

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 ÷ 1,0 mm
Travel speed (mechanical):	max 16 m/s
Measurement length:	Tape length -5 mm each side

ELECTRICAL SPECIFICATIONS

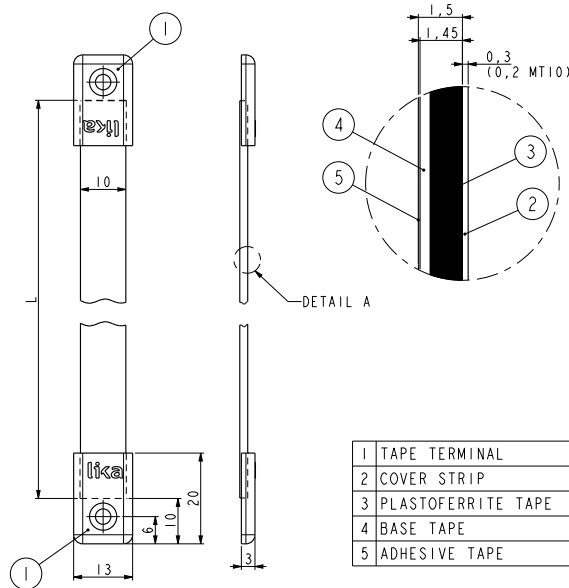
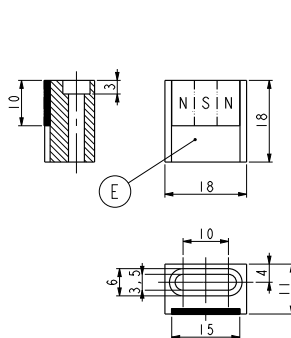
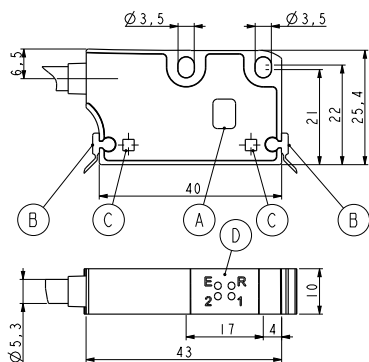
Resolution:	0,05 / 0,01 / 0,002 / 0,001 mm
Sensor accuracy:	$\pm 15 \mu\text{m}$ max.
Repeat accuracy:	± 1 increment
Output circuits:	Line Driver, Push-Pull
Output signals:	AB0 /AB0 + LS1, LS2 (o.c. 50 mA)
Counting frequency:	acc. to edge distance setting
Power supply:	+5Vdc $\pm 5\%$, +10Vdc ÷ +30Vdc
Power consumption:	80 mA max.
Protection:	against inversion of polarity (except 5Vdc version) and short-circuit
EMC:	acc. to EN 61000-6-2 level 3

ACCESSORIES

MTI-0200:	Magnetic tape
LKM-1309/2:	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)

Edge distance selection

Order code	Edge distance (μsec)	Max. counting frequency (kHz)	Resolution (μm) vs. max. possible speed (m/s)			
			1	2	10	50
H	0,3	3333	2,33	4,67	23,34	14,58
J	0,5	2000	1,40	2,80	14,00	8,74
A	1	1000	0,70	1,40	7,00	4,38
B	2	500	0,33	0,67	3,34	2,08
C	4	250	0,18	0,35	1,75	1,09



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)

E Tape position on LKMI309/LS

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

SME22

LKM-1309/2 • LKM-1309/LS

MTI-0200-10

Order code - Sensor

SME22	-	XXX a	-	XXXX b	-	X c	-	XXXX d	-	X e	/Sxxx f
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a) OUTPUT CIRCUITS & POWER SUPPLY
 Y2 = Push-Pull (AB), +10Vdc ÷ +30Vdc
 YC2 = Push-Pull (AB, /AB), +10Vdc ÷ +30Vdc
 L1 = Line Driver (AB, /AB), +5Vdc ±5%
 L2 = Line Driver (AB, /AB), +10Vdc ÷ +30Vdc

b) RESOLUTION
 0050 = 0,05 mm (50 µm)
 0010 = 0,01 mm (10 µm)
 0002 = 0,002 mm (2 µm)
 0001 = 0,001 mm (1 µm)

c) INDEX
 R = unique reference signal

d) CABLE TYPE & LENGTH
 L020 = cable output 2 m
 L050 = cable output 5 m
 Lxx0 = cable out. x m (max. length 10m)

e) EDGE DISTANCE (see edge distance selection)
 H = 0,3 µs
 J = 0,5 µs
 A = 1 µs
 B = 2 µs (standard value)
 C = 4 µs

f) CUSTOM VERSION

Order code - Magnetic tape

MTI	-	XXXX a	-	XX b	-	XXXXXX c	-	X d	-	X e	-	X f	-	XXX g	/Sxxx h
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a) CODING
 0200 = 2 mm pole pitch (ex MT20)

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