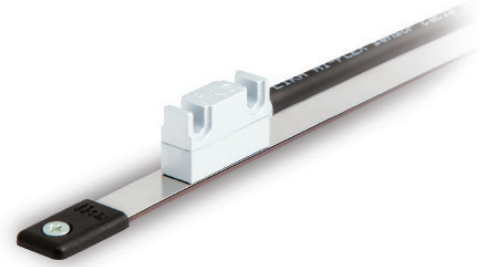




- Miniature encoder for linear motor and pick & place applications
- Real-time 1Vpp sine/cosine
- High performance output signals



SMSR • SMSR2 • SMSR5

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:	IP68
Operating temperature range:	-25°C ÷ +85°C (-13°F +185°F)
Storage temperature range:	-40°C ÷ +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS

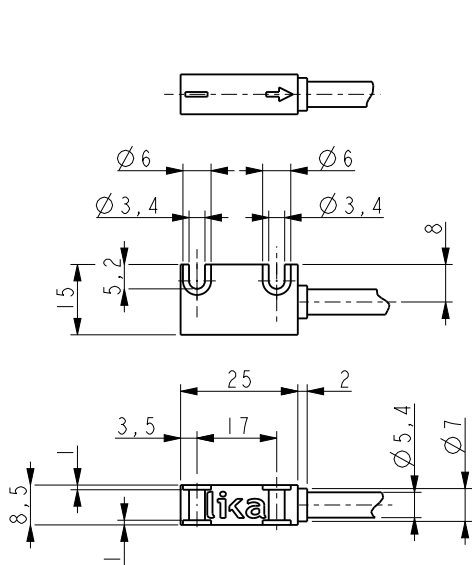
Dimensions:	see drawing
Housing material:	die cast aluminium, UNI EN AC-46100
Electrical connections:	Lika Hi-flex cable M8 2,0 m or M12 8 pin inline plug
Gap between sensor/tape (without cover strip):	SMSR: 0,1 ÷ 0,5 mm SMSR2: 0,1 ÷ 1,0 mm SMSR5: 0,1 ÷ 2,0 mm
Travel speed (mechanical):	max. 16 m/s
Measurement length:	Tape length -5 mm each side

ELECTRICAL SPECIFICATIONS

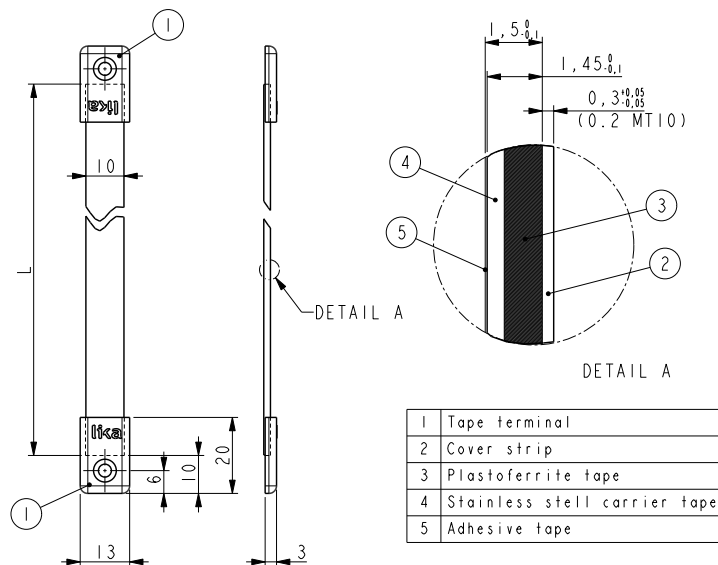
Resolution:	SMSR: 1000 µm SMSR2: 2000 µm SMSR5: 5000 µm
Sensor accuracy:	max. 1% of period length
Repeat accuracy:	±1 increment
Output circuits:	1Vpp
Output signals:	sine/cosine, ABO /ABO
Counting frequency:	SMSR: 18kHz SMSR2: 8 kHz SMSR5: 3,5 kHz
Power supply:	+5Vdc ±5%
Power consumption:	25 mA typ., 50 mA max.
Protection:	against short-circuit
EMC:	acc. to EN 61000-6-2 level 3

ACCESSORIES

MTI-0100:	Magnetic tape for SMSR
MTI-0200:	Magnetic tape for SMSR2
MTI-0500:	Magnetic tape for SMSR5
KIT LKM-1440:	Set of tape terminals (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.



SMSR



MT10

Order code - Sensor

SMSR SMSR2 SMSR5	-	XX (a)	-	X (b)	-	XXXX (c)	/Sxxx (d)
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(a) OUTPUT CIRCUITS & POWER SUPPLY
V1 = 1 Vpp sine/cosine, +5Vdc ±5%

(b) INDEX
N = without
K = every 1, 2 or 5 mm (1Vpp level)

(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

(d) 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
0100 = 1 mm pole pitch (ex MT10)
0200 = 2 mm pole pitch (ex MT20)
0500 = 5 mm pole pitch (ex MT50)

(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	December2023	New order code