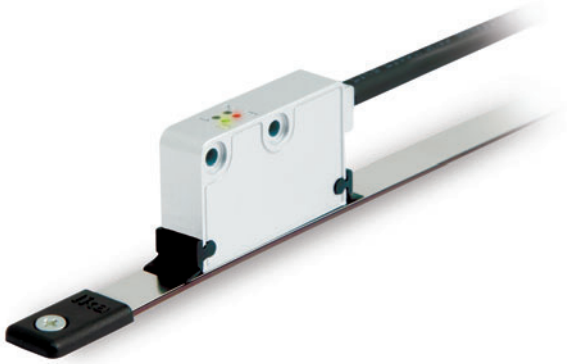
LINEPULS
Linear encoder with SIN/COS output

Series **SMS11 • SMS21**

- 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



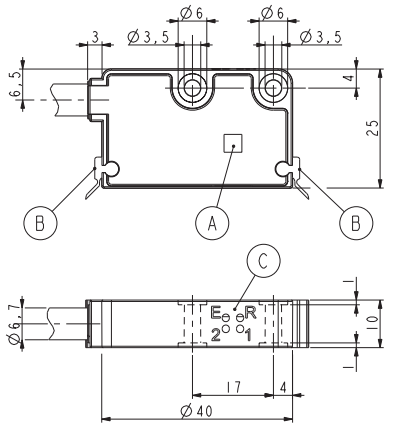
SMS11 • SMS21

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

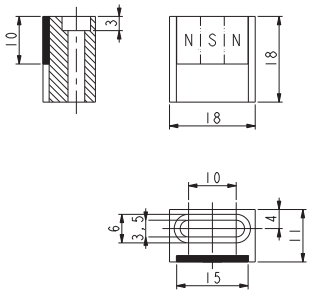
ELECTRICAL SPECIFICATIONS	
Resolution:	SMS11: 1000 µm SMS21: 2000 µm
Sensor accuracy:	max. 1% of period length
Repeat accuracy:	±1 increment
Output circuits:	1Vpp
Output signals:	sine/cosine, AB0 /AB0
Counting frequency:	8 kHz max.
Power supply:	+5Vdc ±5%
Power consumption:	70 mA
Protection:	against short-circuit
EMC:	acc. to EN 61000-6-2 level 3

ACCESSORIES	
MT10:	Magnetic tape for SMS11
MT20:	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-M8-5:	cordset 5 meters with M12 conn.
EC-M12F8-LK-M8-10:	cordset 10 meters with M12 conn.

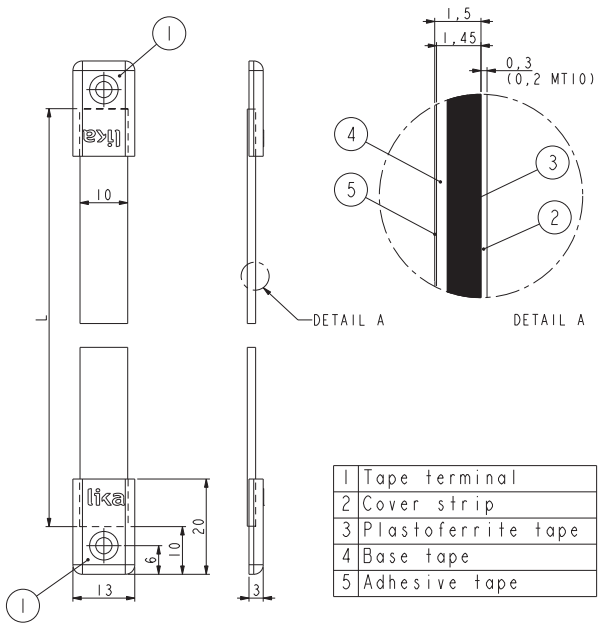


A	Reference sensor "R"
B	Dust wipers
C	Diagnostic LEDS E: Gap/Speed error (red) R: Reference detection (green) 1: Output A (green) 2: Output B (green)

SMS11 • SMS21



LKM-1309/1 • LKM-1309/2



1	Tape terminal
2	Cover strip
3	Plastoferrite tape
4	Base tape
5	Adhesive tape

MT10

Order code - Sensor

SMS11 SMS21	-	X ⓐ	-	X ⓑ	-	X ⓒ	-	XXX ⓓ	/Sxxx ⓔ

ⓐ **OUTPUT CIRCUIT**
V = 1 Vpp sine/cosine

ⓑ **POWER SUPPLY**
1 = +5Vdc ±5%

ⓒ **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)

ⓓ **CONNECTIONS**
L2 = cable output 2 m
Lx = cable output x m
M0,5 = 0,5 m cable + M12 inline plug
M2 = 2 m cable + M12 inline plug

ⓔ **CUSTOM VERSION**

Order code - Magnetic tape

MT10 MT20	-	XXX ⓐ	-	XXX ⓑ	-	X ⓒ	-	/Sxxx ⓓ

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

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

ⓒ **COVER STRIP**
0 = not supplied
1 = supplied

ⓓ **CUSTOM VERSION**