

LINEPULS

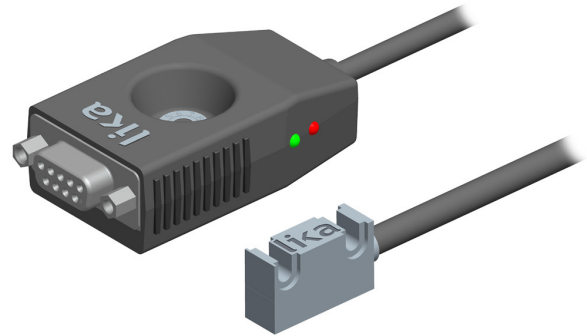
Linear encoder incremental with resolution selector

Series

SMI2 • SMI5



- Resolution selector from 50 to 2 μm
- Compact reading head with IP68 protection
- Power-on and Error LEDs
- Automatic output signal performance control
- Ideal for linear motors and pick & place axes



SMI2 - SMI5

ENVIRONMENTAL SPECIFICATIONS

Protection:	IP68 (sensor head), IP65 (connector)
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS

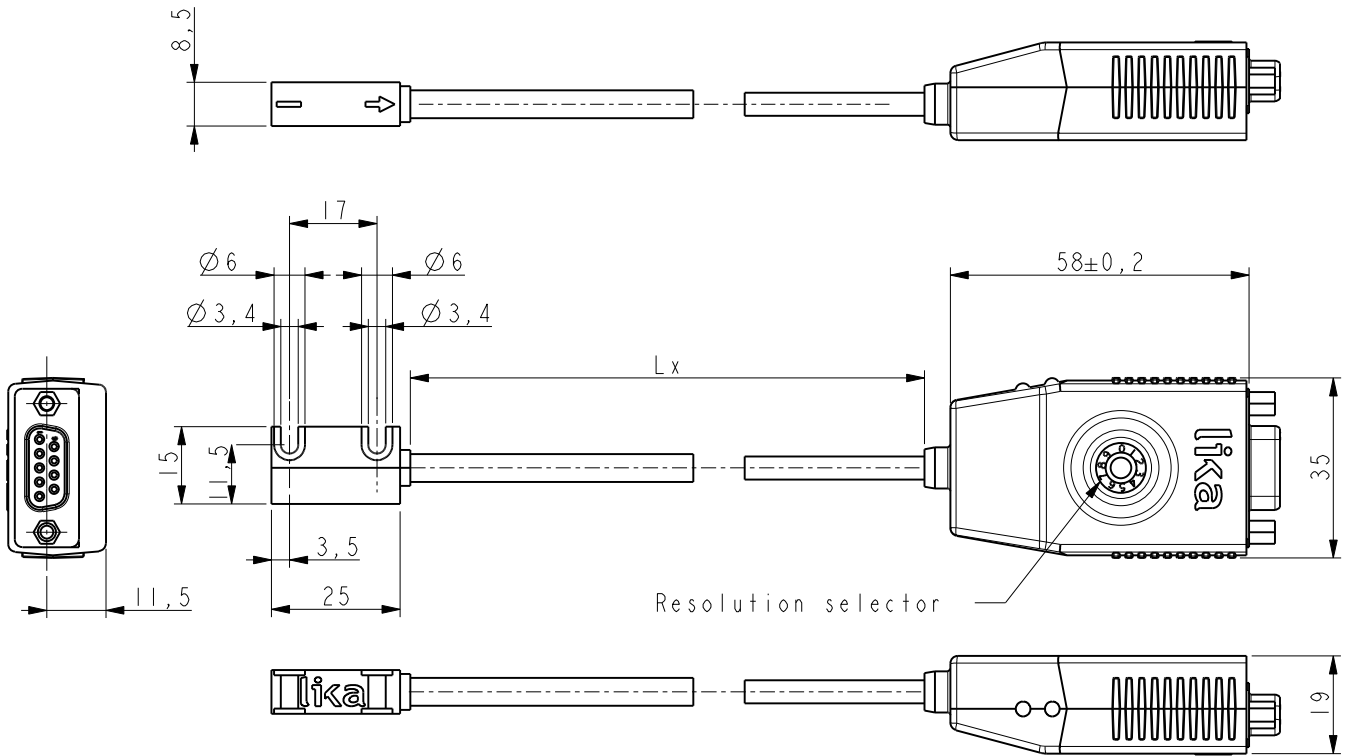
Dimensions:	see drawing
Housing material:	sensor: die cast aluminium, UNI EN AC-46100 connector: Macromelt OM 646-EN
Electrical connections:	M6 Hi-flex cable + DSub 9 pin inline connector
Gap between sensor/tape-ring:	SMI2: 0,1 ÷ 1.0 mm (typ. 0.5) SMI5: 0,1 ÷ 2.0 mm (typ. 1.2)
Travel speed (mechanical):	16 m/s max.

ELECTRICAL SPECIFICATIONS

Resolution:	SMI2: 2 ÷ 20 μm selectable SMI5: 5 ÷ 50 μm selectable
Counting frequency:	500 kHz max. (other on request)
Sensor accuracy:	± 1 increment (after teach-in)
Repeat accuracy:	± 1 increment
Output circuits:	Line Driver (RS422), Push-Pull
Power supply:	+5Vdc $\pm 5\%$, +10 ÷ +30Vdc
Consumption:	80 mA max.
Output current (each channel):	40 mA max.
Protection:	against short circuit against inversion of polarity (only YC circuit)
EMC:	acc. to EN 61000-6-2 level 3

ACCESSORIES

MT50:	Magnetic tape for SMI5
MT20:	Magnetic tape for SMI2



SMI2 - SMI5

Order code

SMI2 SMI5	-	R Ⓐ	-	XXX Ⓑ	-	XX Ⓒ	-	X Ⓓ
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Ⓐ R = rectangular sensor

Ⓑ OUTPUT CIRCUITS

YC-2 = Push-Pull, 10 ÷ 30 Vdc (ABI /ABI)

L-1 = Line Driver (RS422), +5Vdc ±5% (ABI /ABI)

Ⓒ CABLE LENGTH

0.5 = 0,5 m

1 = 1 m

2 = 2 m

3 = 3 m

5 = 5 m

Ⓓ EDGE DISTANCE

B = 2 μs (500 kHz) - standard (min. edge distance and max. output frequency)

on request:
K = 0,125 μs (8 MHz)

H = 0,25 μs (4 MHz)

J = 0,5 μs (2 MHz)

A = 1 μs (1 MHz)