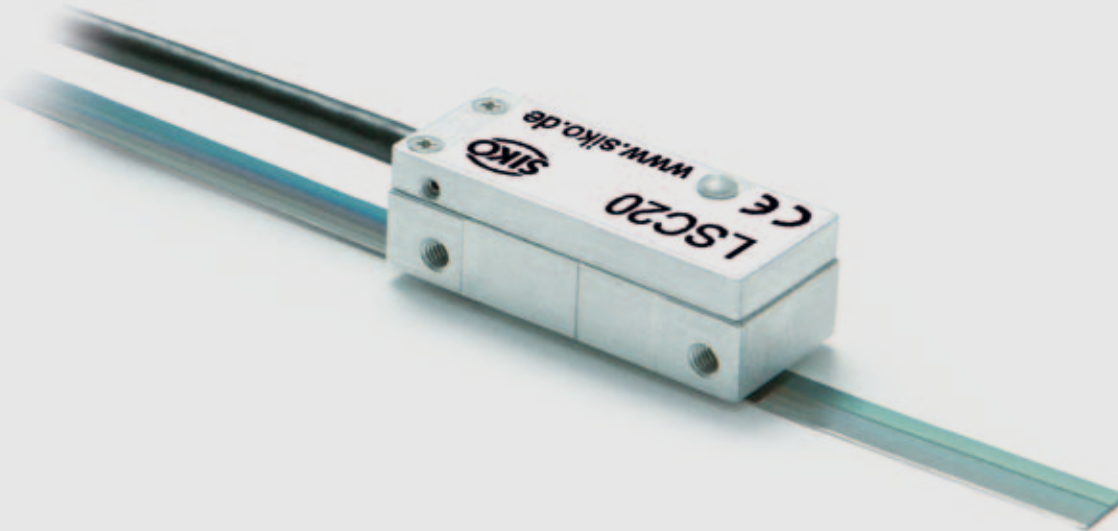


# OptoLine | LSC20 with TS20

## Optical Length and Angle Measurement System



### Description

The new high precision length and angle measurement system LSC20 (Linear Scale Compact 20) works on a new basis using the optical sampling of fine structures on a thin metal strip (TS20). The system achieves an accuracy rate of 5  $\mu\text{m}$  and is 100 % hysteresis free.

### Benefits

- Very small and compact construction design
- Integrated diagnosis LED for simple assembly
- High band/sensor distance
- Flexible scale length up to 30 m
- Reference points can be positioned flexibly
- Optional end marks (thin metal strip) and a limit switch integrated in the sensor – no additional wiring required

### Typical applications

- Pick & Place
- Linear motors
- High-end digital printers
- Analysis and medical engineering
- Semi-conductors and wire bonding

### Technical daten

Characteristic	Technical data
Scale embodiment	TS20 (pitch 20 $\mu\text{m}$ )
Accuracy class	5 $\mu\text{m}$
Repeat accuracy	$\pm 1$ increment
Resolution	0.1 $\mu\text{m}$ , 0.05 $\mu\text{m}$
Reading distance sensor/band	1.0 mm $\pm 0.15$ mm
Movement speed	up to 3.0 m/s
Operational voltage	5 V DC $\pm 5$ %
Power consumption	140 mA (with recommended terminal resistance)
Output circuit	LD (RS422) / optional 1 $V_{SS}$ (sin/cos)
Operational temperature	0 ... +70 °C



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