

Linear Scale Compact LSC20

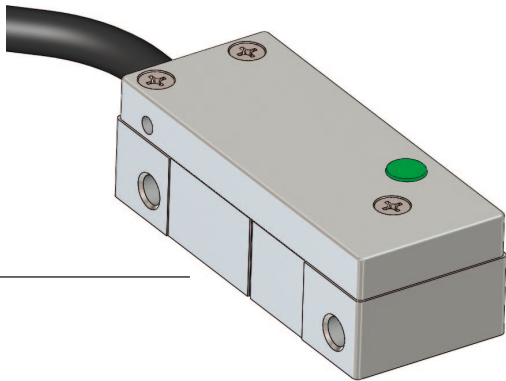


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Features:

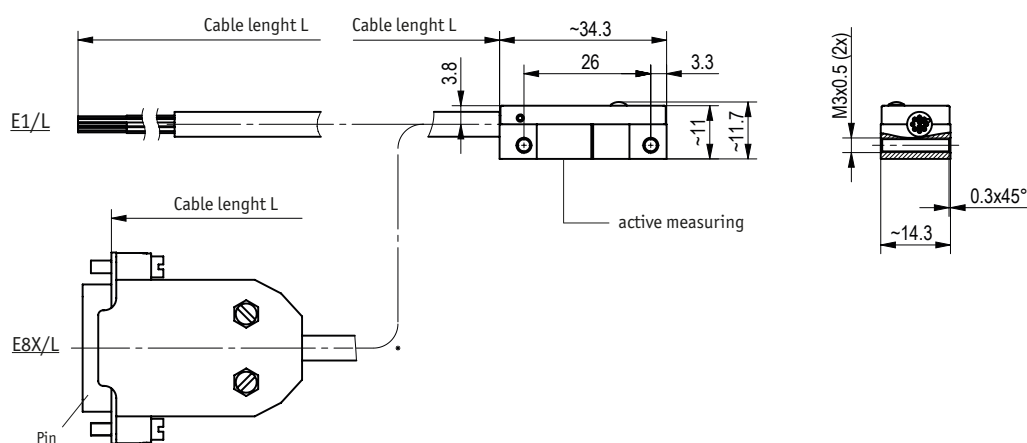
- Optical, laser-based sensor
- Signal period 20 µm
- Works in conjunction with the TS20 optical scale
- System accuracy: ±5 µm/m
- Interpolation in the housing
- Resolution: max. 0.1 µm or 0.05 µm
- LD signals according to RS422 (A,B, index)
- Right and left end position output
- Large sensor- / band clearance: 1.0 mm ±0.15 mm
- Integrated diagnosis LED
- Very small design
- Easy handling, user guidance via PC (with use of the DT20 diagnosis tool)

Feature	Order text		Additional information
Interface	LD	A, /A, B, /B, R, /R	RS422
	A	1 V s/s	analog
Resolution	0.1	B 0.1 µm	
	0.05	0.05 µm	
End position	E0	C without end position	
	EM	with end position	
Type of connection	E8X	D 15-pin D-Sub	
	E1	open cable end	
Cable lenght L (in m)	1.0	E m	
	3.0	m	
	5.0	m	

Your ordering: LSC20 - A - B - C - D - E

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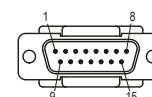
Type of connection:



Connector-/ Cable configuration

Signal	N.C.	GND	N.C.	/R	/B	/A	+5 V	+5 V	GND	L2	L1	R	B	A	N.C.
E1		black		brown	blue	yellow	red			grey	white	orange	violet	green	
E8X	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

viewing side = plug-in side
pin insert



Technical data

Mechanical data:

Housing	Aluminum	
Cable length	1.0, 3.0 und 5.0 m Double-shielded cable, $\varnothing$ 3.6 mm Bending cycles 20×10^6	
Bending radius	≥ 20 mm	Static operation, dynamic operation
Cable sheath	PVC	Sensor
Connector	15-pol. D-Sub	Metal housing
Weight	~ 8 g	Sensor without cable
Weight of cable	~ 14 g/m	
Sensor/band reading distance	1.0 ± 0.15 mm	

Electrical data:

Operating voltage	5 V DC $\pm 5\%$	
Output signals	A, /A, B, /B, R, /R Left and right limit switches	According to RS422 High/Low active (programmable) PP 3.3 volt max. CVTTL compatible High > 2.4 V DC, Low < 0.4 V DC
Current consumption	~ 140 mA	With terminating resistor
Output frequency	Max. 7.5 MHz / channel	
Downtime noise	1 increment / 1 MHz (per channel)	
Test mark	CE	

Ambient condition:

Operating temperature	0 ... 70 °C	
Storage temperature	-20 ... 85 °C	
Relative humidity	10 ... 90 %, no condensation	At 20 °C
EMC	EN 55011 EN 61000-4-2, -3, -6 EN 61000-4-4	Interference resistance / immission Emitted interference / emission
Protection category	IP54	EN 60529, only with mating connector or protective cap
Vibration resistance	< 30 g / 17 Hz	EN 60068-2-6 (axial, radial)
Shock resistance	< 300 g / 0.5 ms	EN 60068-2-27

System data:

Travel speed	0.1 μ m 3 m/s 0.05 μ m 1.5 m/s	Depends on resolution
Scale	TS20	
Signal period	20 μ m	
Resolution	0.1 μ m / 0.05 μ m	
System accuracy	± 5 μ m / m	
Repeat accuracy	± 1 increment	Bidirectional

Accessory

87172	Spacing template	seperately enclosed
DT20	Diagnostic Tool	inclusive: software, USB-Cable, power supply
87173	Sensor Adapter	