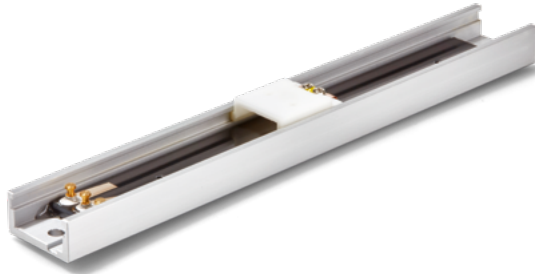


Data Sheet for Linear Sensors

Potentiometric Linear Transducer (Conductive Plastic)

Series CFL



The CFL series is equipped with a high resolution conductive plastic resistor element with cursor. It is suitable for measuring lengths of 100...300 mm.

Electrical Data	CFL 100	CFL 200	CFL 300
Effective electrical travel 1.)	100 ±1	200 ±1	300 ±1
Total resistance 1.)	2..10 kOhm		5..20 kOhm
Resistance tolerance	±20% (±10%)		
Independent linearity (best straight line) 1.)	±0,5% (±0,1%)		
Theoretical resolution 1.)	Almost infinite		
Backlash (Hysteresis) 1.)	≤ 0,1 mm		
Max. / recommended wiper current 1.)	1 mA (@ 40°C, 1 min in case of failure) / 2 µA		
Power rating @ 70°C (0W @ 105°C)	≤ 1 W	≤ 2 W	≤ 2,5 W
Isolation voltage 1.)	500 VAC, 1min		
Isolation resistance 1.)	1000 MOhm @ 500 VDC		

Mechanical Data, Environmental Conditions, Miscellaneous	CFL 100	CFL 200	CFL 300
Mechanical stroke 1.) in mm	ca. 103	ca. 203	ca. 303
Lifetime (90% effective electrical travel) 2.)	20 Mio. movements		
Max. operational speed	< 5 m/s		
Operational force @ RT 1.) 2.)	< 0,2 N		
Operational temperature	-30..+105°C		
Storage temperature	-30..+105°C		
Protection grade (IEC60529)	IP40		
Vibration (IEC 68-2-6, Test Fc)	15 g (10..2000 Hz, 0,75mm, 12h)		
Shock (IEC 68-2-27, Test Ea)	50 g, halfsine, 11 ms (18x)		
Housing length	150 ±1	250 ±1	350 ±1
Mass	50 g	70 g	100 g
Mounting parts (included in delivery)	None		
Material housing	Aluminium		
Electrical connection	Soldering pins		

1.) According IEC 60393

2.) Determined by climatic conditions according to IEC 68-1, para. 5.3.1 without load collectives

Please note: Max. permissible supply voltage <75 VDC respectively <50 VAC in addition the max. power rating must be observed

Data Sheet for Linear Sensors

Potentiometric Linear Transducer (Conductive Plastic)

Series CFL

Order Code

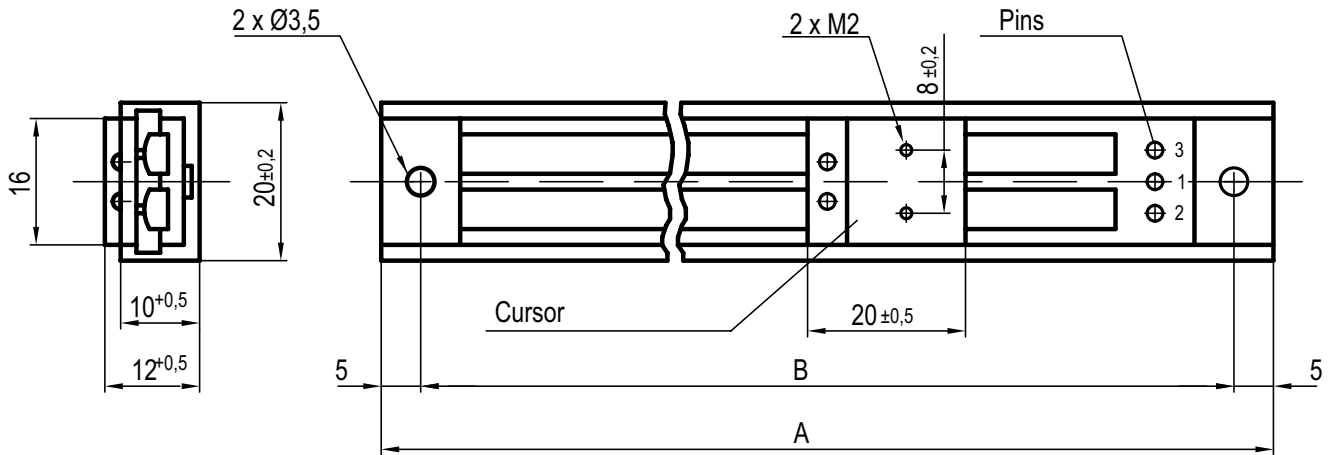
Description	Selection: standard=black/bold , possible <i>options=grey/italic</i>				
Series:	CFL				
Effective electrical travel:					
100 mm		100			
200 mm		200			
300 mm		300			
Total resistance:					
<i>Option 2 kOhm (only for 100 mm and 200 mm)</i>			<i>R2K</i>		
<i>Option 5 kOhm</i>			<i>R5K</i>		
10 kOhm			R10K		
<i>Option 20 kOhm (not for 100 mm and 200 mm)</i>			<i>R20K</i>		
Resistance tolerance:					
±20%				W20%	
<i>Option ±10%</i>				<i>W10%</i>	
Independent linearity:					
±0.5%					L0,5%
<i>Option ±0.1%</i>					<i>L0,1%</i>

For higher quantities or on-going demand, additional options are available as described below on request

For example:

- Assembled leads and cables with / without connector and much more

Drawing



	CFL 100	CFL 200	CFL 300
A	150 ±1	250 ±1	350 ±1
B	140 ±0,5	240 ±0,5	340 ±0,5

Connection diagram

Dimensions in mm

