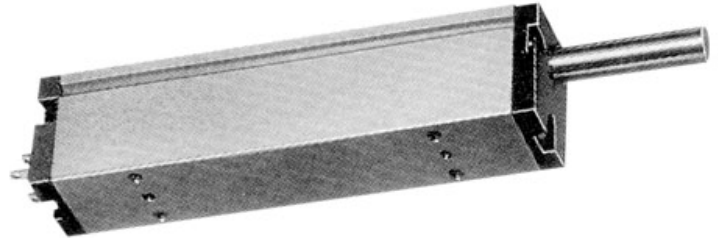
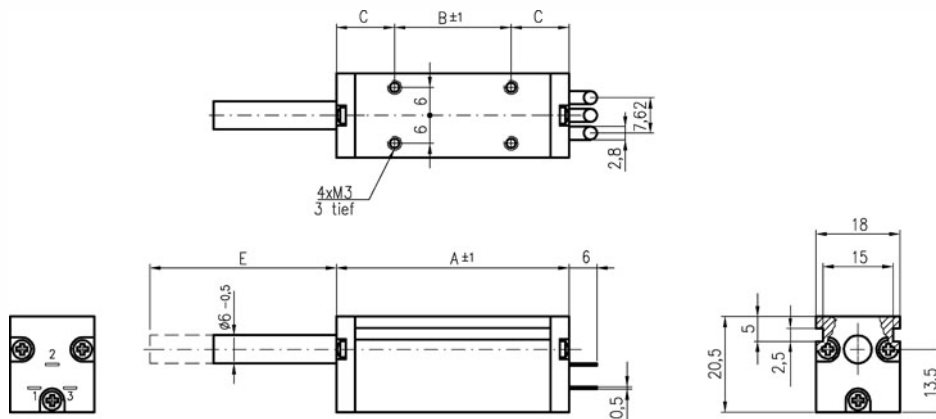


## Series CLP21 - Potentiometric Linear Transducer

- Resolution quasi infinite
- Electrical travel from 15mm to 100mm
- Robust housing
- Resistance values 500Ohm to 20kOhm
- Optional with external spring return device



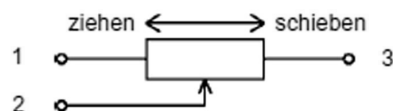
### Drawing



### Dimensions

Type	CLP 21-15	CLP 21-30	CLP 21-50	CLP 21-100
A [± 1mm]	50	65	85	135
B [± 1mm]	25	40	50	100
C [± 1mm]	12,5	12,5	17,5	17,5
E [± 2mm]	40	55	75	125

Electrical Connection



## Series CLP21 - Potentiometric Linear Transducer

Electrical Data	CLP 21-15	CLP 21-30	CLP 21-50	CLP 21-100
Electrical Travel $\pm 0,5\text{mm}$	15 mm	30 mm	50 mm	100 mm
Resistance Values	0.5, 1, 2, 5, 10 kOhm			1, 2, 5, 10, 20 kOhm
Resistance Tolerance, Standard	$\pm 10\%$			
Linearity Tolerance, Standard	$\pm 0,7\%$		$\pm 0,5\%$	
Linearitätstoleranz, bestmöglich	$\pm 0,5\%$ (opt.)		$\pm 0,25\%$ (opt.)	$\pm 0,2\%$ (opt.)
Resolution	<0,01 mm			
Maximum Power at 40°C	0,3 W	0,6 W	0,75 W	1,25 W
Maximum Operating Voltage	50 V			
Temperature Coefficient	400 ppm/K			
Initial Resistance	< 2%			
Insulation Resistance	> 1000 MOhm (at 1000V DC)			
Dielectric Strength	1000Veff. / 1 min.			
Maximum Wiper Current	1 mA			
Recommended Wiper Current	< 1 $\mu\text{A}$ (voltage divider circuit)			

Mechanical Data	CLP 21-15	CLP 21-30	CLP 21-50	CLP 21-100
Mechanical Travel	15 + 2 mm	30 + 2 mm	50 + 2 mm	100 + 2 mm
Maximum Operating Friction	< 0,4 N			
Maximum Starting Friction	< 0,5 N		< 1 N	
Stopper Strength, statically	90 N			
Weight	$\approx 60$ g	$\approx 70$ g	$\approx 100$ g	$\approx 140$ g
Bearing Push Rod	Sleeve Bearing			
Maximum Displacement Speed	5 m/s			
Middle Life	40 Mio. / CLPR 20 Mio. shaft movements			
Housing Material	Aluminium			
Rod Material	Stainless Steel			
Pin Material	gold-plated Brass			

Ambient Conditions	
Operating Temperature	-30 ... + 105° C
Storage Temperature	-45 ... + 125° C
Vibration	15 g / 10 ... 2000 Hz
Shock	50 g / 11 ms
Protection Class	IP40 / optional IP54

# Series CLP21 - Potentiometric Linear Transducer

## Options / Accessories / Subsequent Processing Devices

Mechanical Options	Electrical Options
<ul style="list-style-type: none"> <li>• Special shaft dimensions (length max. 200 mm, shape, thread)</li> <li>• External spring return device (counteracting force <math>\approx 3\text{N}</math>) with lower life time</li> <li>• Special travels</li> <li>• Mounting clamps (1 set = 4 pcs.)</li> </ul>	<ul style="list-style-type: none"> <li>• Special resistance values</li> <li>• Tighter tolerances (Linearity)</li> </ul>

## Order Code

Series	mech. Version	Type	Stroke	Res. Value	Res. Tolerance	Lin. Tolerance
CLP	- (Standard) R (with spring return)	21	15 30 50 100	500 R1K R2K R5K R10K R20K	W $\pm 10\%$	L $\pm 0,5\%$

### Example: CLPR 21 30 R2K W10% L0,5%

Series CLP 21 with spring return, 30mm travel , resistance vlaue 2 kOhm, resistance tolnernace  $\pm 10\%$  , linearity tolerance  $\pm 0,5\%$ .

The specifications and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product.  
24. August 2005. All specifications are subject to change without notice.