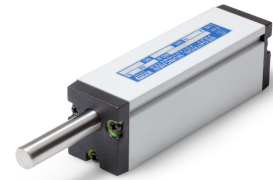
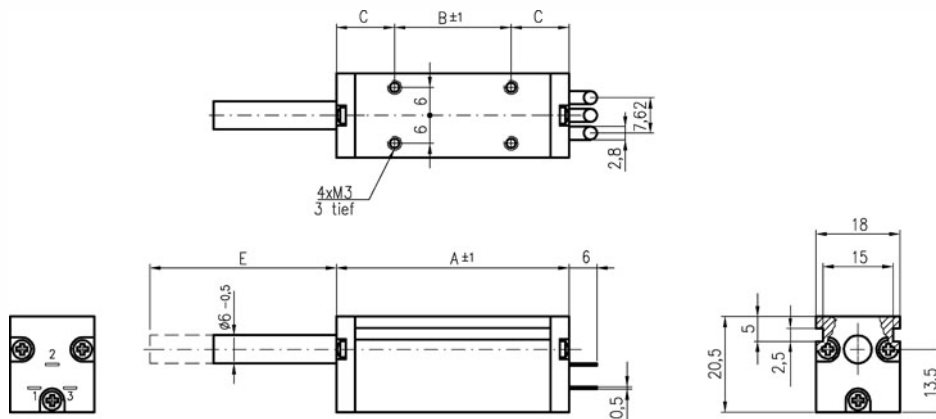


Series CLP21 - Potentiometric Linear Transducer

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



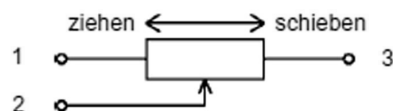
Drawing



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 | ≈ 60 g | ≈ 70 g | ≈ 100 g | ≈ 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 | $-30 \dots + 105^\circ\text{C}$ |
| Storage Temperature | $-45 \dots + 125^\circ\text{C}$ |
| 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"> • Special shaft dimensions (length max. 200 mm, shape, thread) • External spring return device (counteracting force \approx 3N) with lower life time • Special travels • Mounting clamps (1 set = 4 pcs.) | <ul style="list-style-type: none"> • Special resistance values • Tighter tolerances (Linearity) |

Order Code

| | | | | | |
|----------------------|----------|----------------|--|-------------|--|
| Series | CLP(R)21 | | | | |
| Stroke [mm] | | 15 | | | 0,7% (0,5%*) |
| | | 30 | | | 0,7% (0,5%*) |
| | | 50 | | | 0,5% (0,25%*) |
| | | 100 | | | 0,5% (0,2%*) |
| Resistance value | | R1k | | | |
| | | R2k (*) | | | |
| | | R5k | | | |
| | | R10k | | | |
| Resistance tolerance | | | | W10% | |
| Linearity tolerance | | | | | depends on the stroke (see above) |

"bold print = standard option"

short-term stock types can be found on: <http://www.megatron.de/en/stocklists/linear-sensors/lagerliste.html>

(*) = on request available for projects

23.02.2015