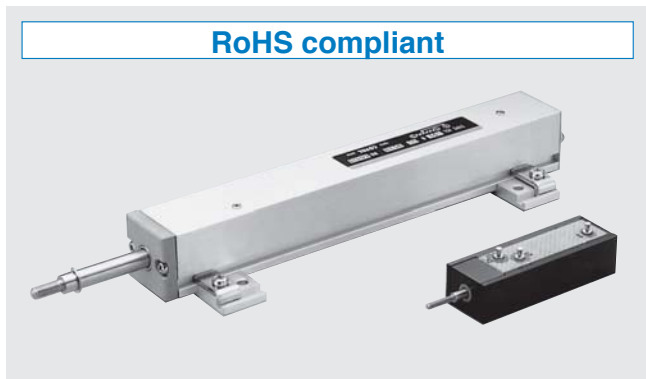


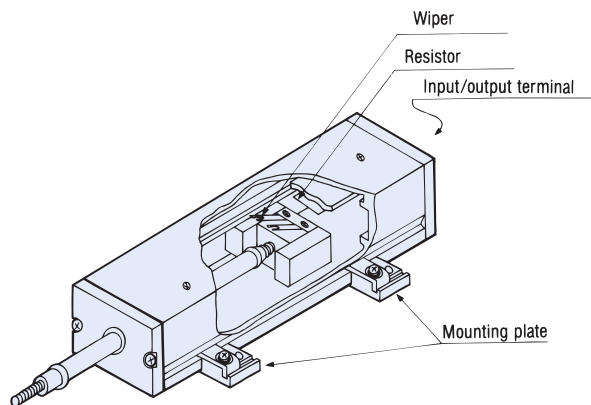
CONDUCTIVE PLASTIC RECTILINEAR TYPE

JCL·JCL B series

RoHS compliant



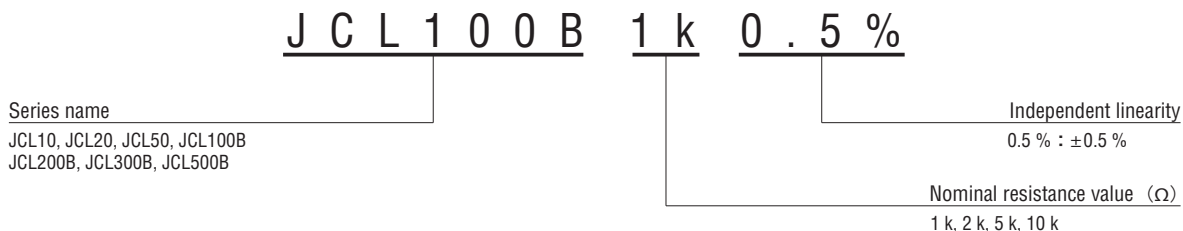
Basic construction Conductive plastic rectilinear type



FEATURES

- 10 ~ 500 mm
- High resolution (Essentially infinite)
- Long life
- Mounting plate seating position can be set to any positions (JCL B)
- RoHS compliant

PART NUMBER DESIGNATION



LIST OF PART NUMBERS

| Effective electrical travel | Item | Nominal resistance value | Part number |
|-----------------------------|-------|--------------------------|------------------|
| 10 mm | | 1 kΩ | JCL10 1 k 0.5 % |
| | | 2 kΩ | JCL10 2 k 0.5 % |
| | | 5 kΩ | JCL10 5 k 0.5 % |
| 20 mm | | 1 kΩ | JCL20 1 k 0.5 % |
| | | 2 kΩ | JCL20 2 k 0.5 % |
| | | 5 kΩ | JCL20 5 k 0.5 % |
| 50 mm | | 10 kΩ | JCL20 10 k 0.5 % |
| | | 1 kΩ | JCL50 1 k 0.5 % |
| | | 2 kΩ | JCL50 2 k 0.5 % |
| | 5 kΩ | JCL50 5 k 0.5 % | |
| | 10 kΩ | JCL50 10 k 0.5 % | |

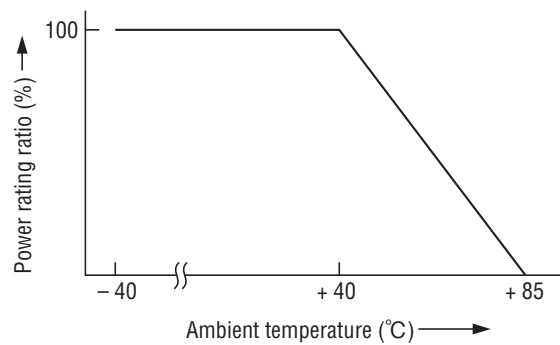
| Effective electrical travel | Item | Nominal resistance value | Part number |
|-----------------------------|------|--------------------------|--------------------|
| 100 mm | | 1 kΩ | JCL100B 1 k 0.5 % |
| | | 2 kΩ | JCL100B 2 k 0.5 % |
| | | 5 kΩ | JCL100B 5 k 0.5 % |
| | | 10 kΩ | JCL100B 10 k 0.5 % |
| 200 mm | | 1 kΩ | JCL200B 1 k 0.5 % |
| | | 2 kΩ | JCL200B 2 k 0.5 % |
| | | 5 kΩ | JCL200B 5 k 0.5 % |
| | | 10 kΩ | JCL200B 10 k 0.5 % |
| 300 mm | | 2 kΩ | JCL300B 2 k 0.5 % |
| | | 5 kΩ | JCL300B 5 k 0.5 % |
| | | 10 kΩ | JCL300B 10 k 0.5 % |
| 500 mm | | 5 kΩ | JCL500B 5 k 0.5 % |
| | | 10 kΩ | JCL500B 10 k 0.5 % |

※ Verify the above part numbers when placing orders.

STANDARD SPECIFICATIONS

| Item | Part number | JCL | | | | | | |
|---------------------------------|----------------------|--|--|--|---|---|---|---|
| | | 10 | 20 | 50 | 100B | 200B | 300B | 500B |
| Resistance tolerance | % | ± 20 | | | | | | |
| Resolution | | Essentially infinite | | | | | | |
| Independent linearity | % | ± 0.5 | | | | | | |
| Effective electrical travel | mm | 10 $\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$ | 20 $\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$ | 50 $\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$ | 100 $\begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$ | 200 $\begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$ | 300 $\begin{smallmatrix} +3 \\ 0 \end{smallmatrix}$ | 500 $\begin{smallmatrix} +3 \\ 0 \end{smallmatrix}$ |
| Mechanical travel | mm | Minimum effective electrical travel | | | | | | |
| Power rating (at 40 °C) | W | 0.13 | 0.25 | 0.6 | 1.5 | 3 | 4 | 7 |
| Dielectric strength | Vrms | 1000 1 min | | | | | | |
| Insulation resistance | MΩ minimum | 1000 (at DC500 V) | | | | | | |
| Operating force | mN {gf} maximum | 147 {15} | | | 1960 {200} | | | |
| Stop strength | N·m {kgf·cm} minimum | 0.196 {2} | | | 0.981 {10} | | | |
| Maximum traveling speed | mm/s | 500 | | | | | | |
| Temp. coefficient of resistance | ppm/°C | ± 400 | | | | | | |
| Operating temp. range | °C | -40 ~ 85 | | | | | | |
| Life | cycle | 20 million | | | | 10 million | 6 million | 4 million |
| Net weight | g | Approx. 23 | Approx. 27 | Approx. 38 | Approx. 182 | Approx. 272 | Approx. 373 | Approx. 555 |
| Protection grade | | IP40 | | | | | | |

RATED POWER DERATING CURVE

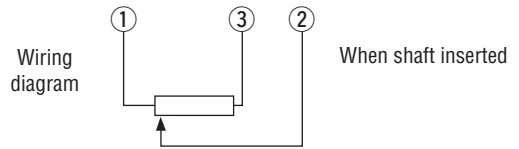
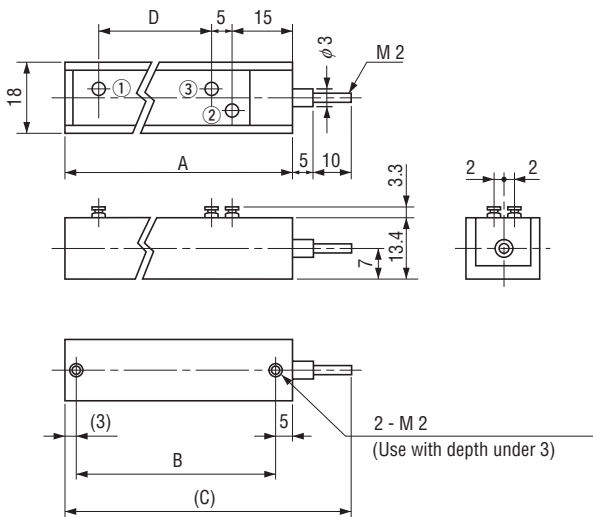


JCL/JCL B POTENTIOMETERS

OUTLINE DIMENSIONS

JCL10 ~ 50

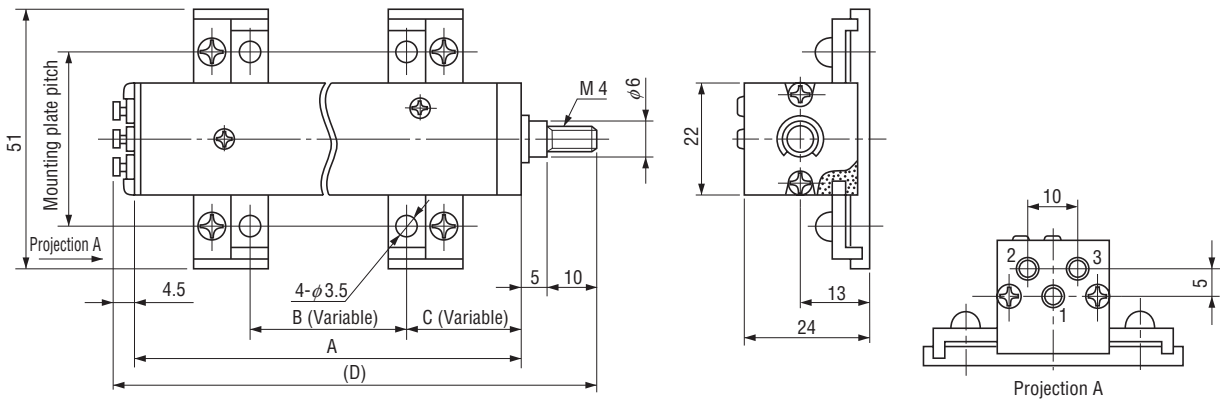
Unless otherwise specified, tolerance: ± 0.5 (Unit: mm)



JCL10 ~ 50

| Part number | Mark | A | B | (C) | D |
|-------------|------|----|----|-----|----|
| JCL10 | | 45 | 37 | 60 | 18 |
| JCL20 | | 55 | 47 | 70 | 28 |
| JCL50 | | 85 | 77 | 100 | 58 |

JCL100B ~ 500B



JCL100B ~ 500B

| Part number | Mark | A | B | C | (D) |
|-------------|------|-----|-----------|----------|-------|
| JCL100B | | 159 | 50 ~ 129 | 17 ~ 96 | 178.5 |
| JCL200B | | 259 | 100 ~ 229 | 17 ~ 146 | 278.5 |
| JCL300B | | 369 | 150 ~ 339 | 17 ~ 206 | 388.5 |
| JCL500B | | 569 | 250 ~ 539 | 17 ~ 306 | 588.5 |

B dimensions require minimum 1/2 of effective electrical length.

Mouser Electronics

Authorized Distributor

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Nidec:

[JCL10 1K 0.5%](#) [JCL10 2K 0.5%](#) [JCL10 5K 0.5%](#) [JCL100B 10K 0.5%](#) [JCL100B 1K 0.5%](#) [JCL500B 5K 0.5%](#)
[JCL300B 5K 0.5%](#) [JCL50 10K 0.5%](#) [JCL50 1K 0.5%](#) [JCL50 2K 0.5%](#) [JCL50 5K 0.5%](#) [JCL500B 10K 0.5%](#) [JCL200B](#)
[10K 0.5%](#) [JCL200B 1K 0.5%](#) [JCL200B 2K 0.5%](#) [JCL200B 5K 0.5%](#) [JCL300B 10K 0.5%](#) [JCL300B 2K 0.5%](#)
[JCL100B 2K 0.5%](#) [JCL100B 5K 0.5%](#) [JCL20 10K 0.5%](#) [JCL20 1K 0.5%](#) [JCL20 2K 0.5%](#) [JCL20 5K 0.5%](#)