

Various wiper options available

## FEATURES

PIHER Printed Circuit Resistors are thick-film elements designed to be printed on a wide range of non-conductive substrates. These range from ceramic to most PCB materials allowing the elimination of resistor, jumper wire, etc. insertion problems and associated costs.

This PIHER market-leading thick-film technology can be used to deposit any combination of fixed resistors, potentiometer tracks and conductors in virtually any size, shape or form. Thereby offering an enormous range of design possibilities.

The resistive values can be individually laser trimmed to obtain very accurate tolerances.

PIHER's PCR technology is ideal for voltage-divider calibration and resistor family matching. In these cases PIHER offers high precision voltage ratios between key points of the circuit.

Furthermore, in those applications where the printed variable resistor or potentiometer is linked to an additional external mechanism, PIHER can design, manufacture and supply the wiper interface according to customer requirements.

## MAIN SPECIFICATIONS

- Resistance range: 10Ω to 1MΩ.
- TCR: Better than 300 ppm/°C.
- Tolerances\*:
  - Ohmic value:
    - Non-trimmed resistors: ± 30%, ±20% (depending on values, shapes and substrates)
    - Trimmed resistors: ±5%
    - Matching capability: ±2%, ±1%
  - Voltage Ratio:
    - Non-trimmed resistors: ±10%
    - Trimmed resistors: ±2%
- Rotational Life (potential dividers only):
  - From 10 thousand to 5 million cycles (depending on each individual case)

(\*) Others upon request

## PRINCIPAL ADVANTAGES

- Low profile.
- Low cost.
- No insertion costs.
- No insertion errors.
- No soldering problems.
- Unlimited fixed and variable resistor combinations.
- Excellent high frequency performance.
- Calibrated voltage dividers available.
- Special ohmic values available.
- Functional (in-circuit) trimming.
- Laser trimming capabilities.

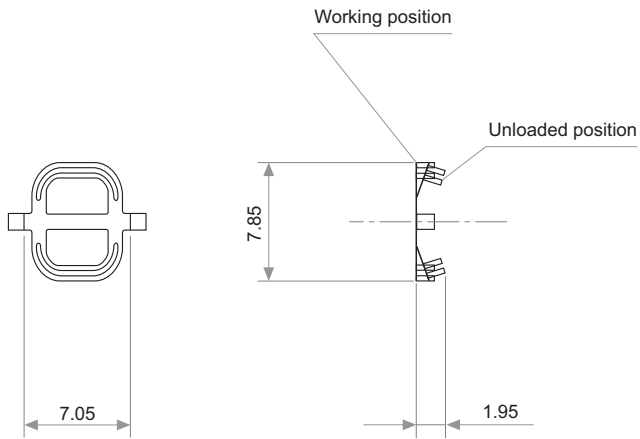
## TYPICAL APPLICATIONS

- AUTOMOTIVE:
  - Climate control:
    - Temperature
    - Air flow
    - Distribution
  - Headlight positioning control.
  - Dashboard dimmer control.
  - Mirror position sensor.
  - Headlight position sensor.
  - Fuel tank level sensor.
  - Seat position sensor.
- HOME APPLIANCES:
  - Light dimmers.
  - Speed control for hand power tools.

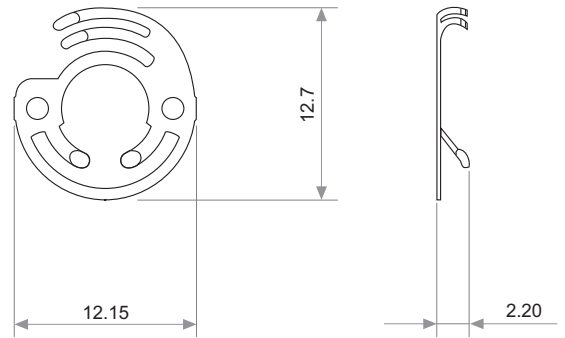
## HOW TO ORDER

Please consult your nearest PIHER supplier.

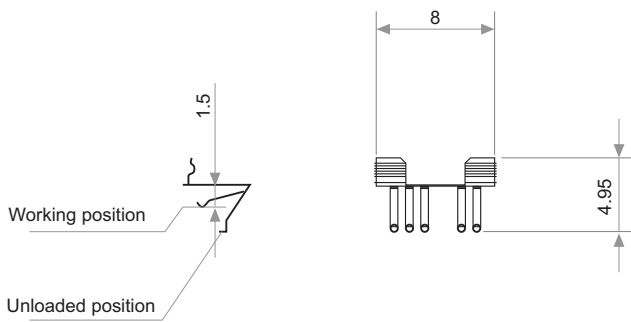
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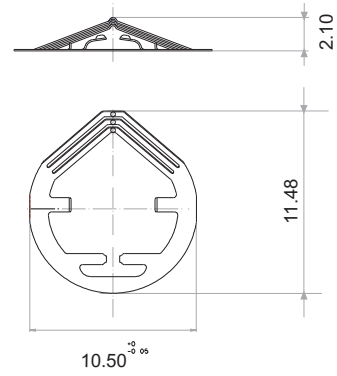
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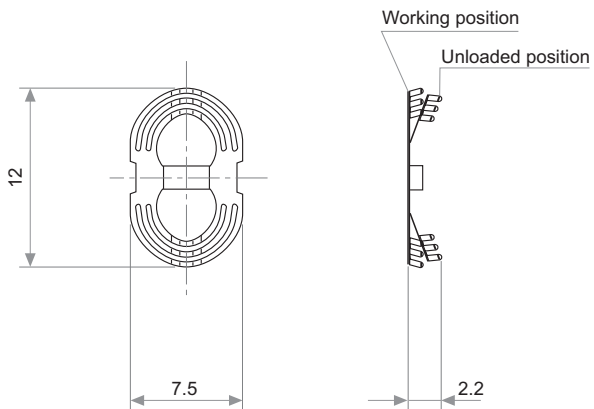
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