

Sample Module *Curve*® plugged 2940L



- Module size: 49 mm x 40 mm x 3.3 mm
- Active length: 29 mm
- Module weight: 7.9 g

- Recommended bending stiffness of substrate ($E \cdot I = E \cdot b \cdot h^3 / 12$): 115 000 Nmm²

- Example thickness of substrate at module width

high stiffness (Spring steel 210 GPa): 0.55 (0.35 – 0.65 mm)

medium stiffness (GFRP 20 GPa): 1.3 (0.8 – 1.6 mm)

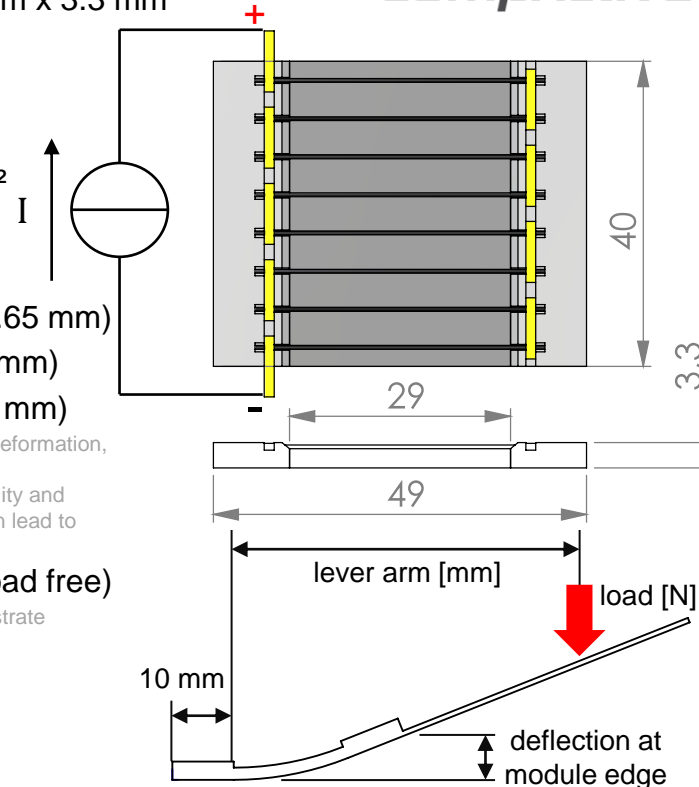
low stiffness (3D-printed 2 GPa): 1.8 (1.0 – 2.5 mm)

- Note: If the substrate is not able to bear the bending without plastic deformation, the actuator cannot recover the original flat position on cooling
- Note: Significant higher bending stiffness is reducing the load capability and potentially the cycling stability / significant lower bending stiffness can lead to an incomplete recover of the original flat position on cooling

- Expected deflection at module edge: 4.2 – 7 mm (load free)

- Note: Higher deflection for lower bending stiffness / thickness of substrate

- Maximum load / torque (lever arm * load): 300 Nmm



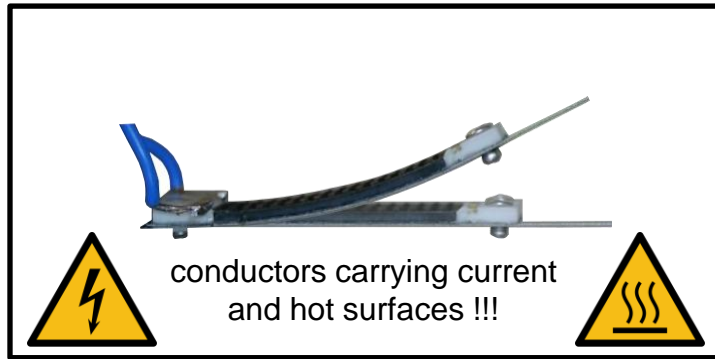
Please pay attention to the **application notes on the back** and to the **assembly instructions on our YouTube channel**

Sample Module *Curve*[®] plugged 2940L



application notes

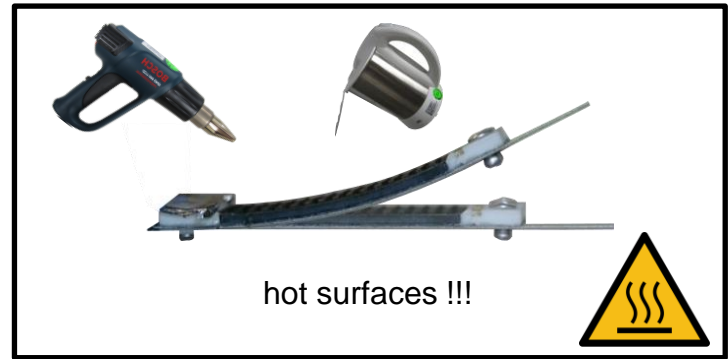
Curve plugged[®]



conductors carrying current
and hot surfaces !!!

Electrical resistivity: 1.4 Ω
**Activation of a cooled down actuator
in calm air at 23°C by heating current /
max time:** e.g. 2.5A/45s; 3A/15s; 4A/4s; 5A/1s

Curve unplugged[®]



hot surfaces !!!

Begin of actuation: ca. 60°C
End of actuation: ca. 100°C
Maximum temperature: 130°C

- **Current and time period only as a guide for a cooled down actuator in calm air at 23°C**
→ **Risk of overheating for subsequent activation** without adaption of current and time period
- To avoid damage do not exceed maximum temperature either electrical or thermal
- Uncontrolled electrical heating can lead to overheating → **risk of fire!**
- Operate exclusively with controllable power source in the SELV (safe extra-low voltage) range