Mechano Transformer Corporation

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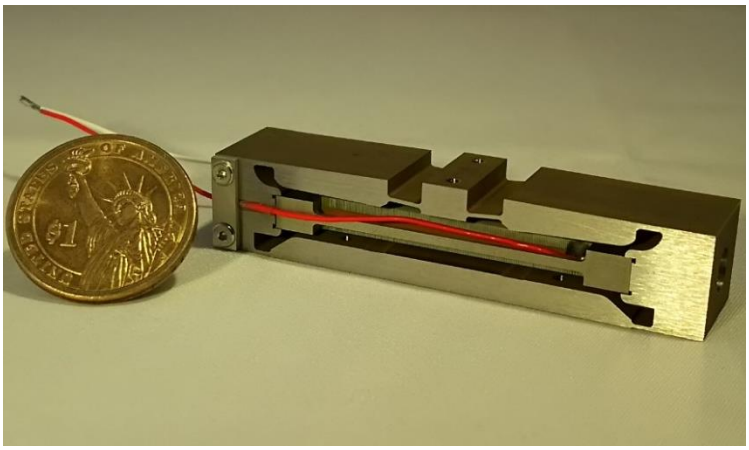
Magnified piezoelectric actuator

MTKK Series: MTKK16S400F170R

Specifications



- **Open-loop stroke: 400 μm @ 150V (fixed-free)**

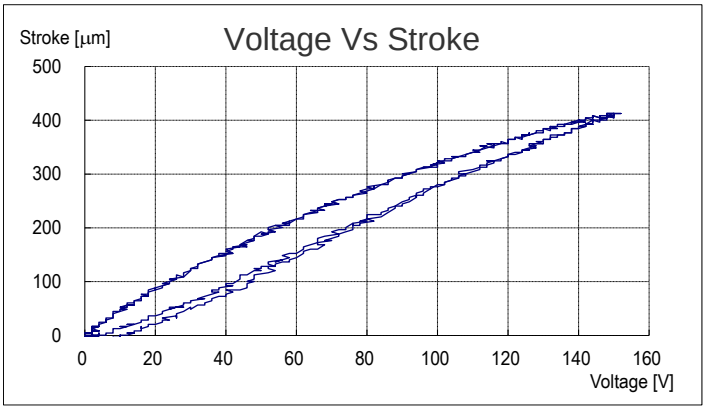
*Tolerance value: 320～480 μm

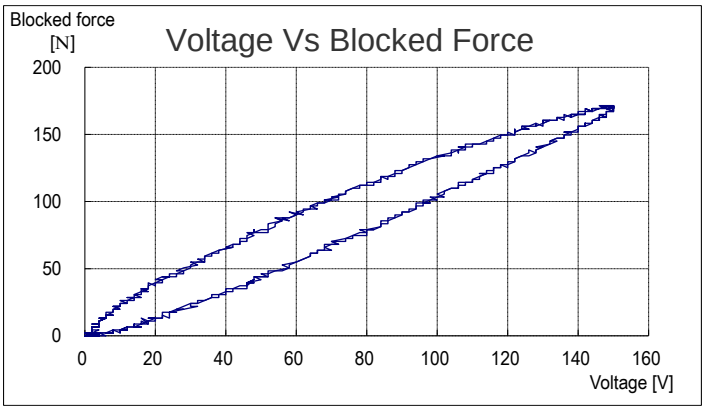
- **Operating voltage: -20 V ～+150 V**
- **Stiffness in motion direction: 0.43 N/μm**
- **Resonance frequency(fixed-free): 1200 Hz**

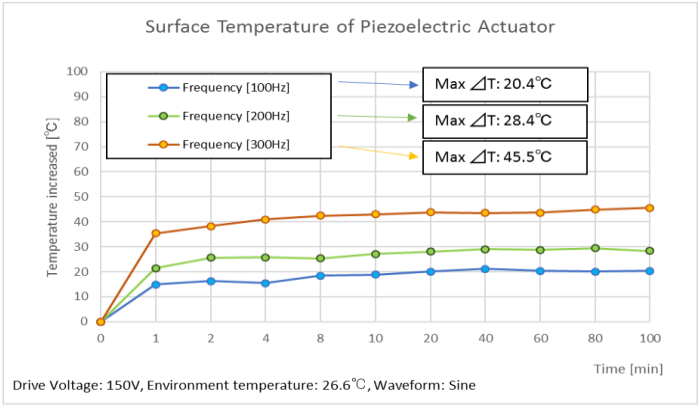
*Tolerance value: 900～1500 Hz

- **Blocked force: 170 N** (*Tolerance value: 136～204N)
- **Capacitance: 12.5 μF**
- **Dimension: 72x21x15 mm**
- **Mechanical interface: 2-M2.0 Tapped hole and 4-M2.0 Tapped hole**
- **Environment: 0 to 85℃ with humidity less than 40%**
- **Mass: 98.2 g**

*All dimensions and specifications stated are nominal.



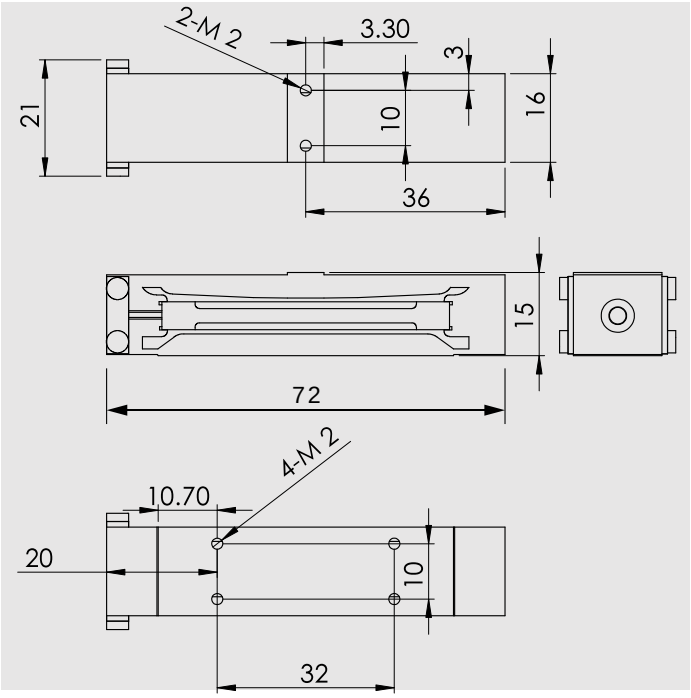




Option:

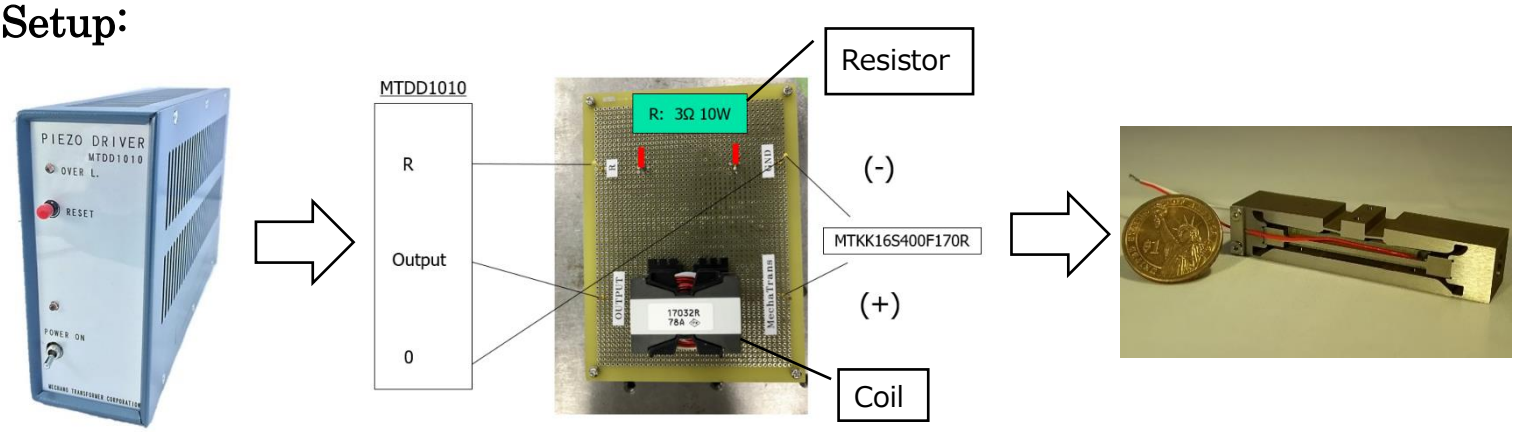
・Mechanical interface can be tailor with an addition option fees.

Geometry

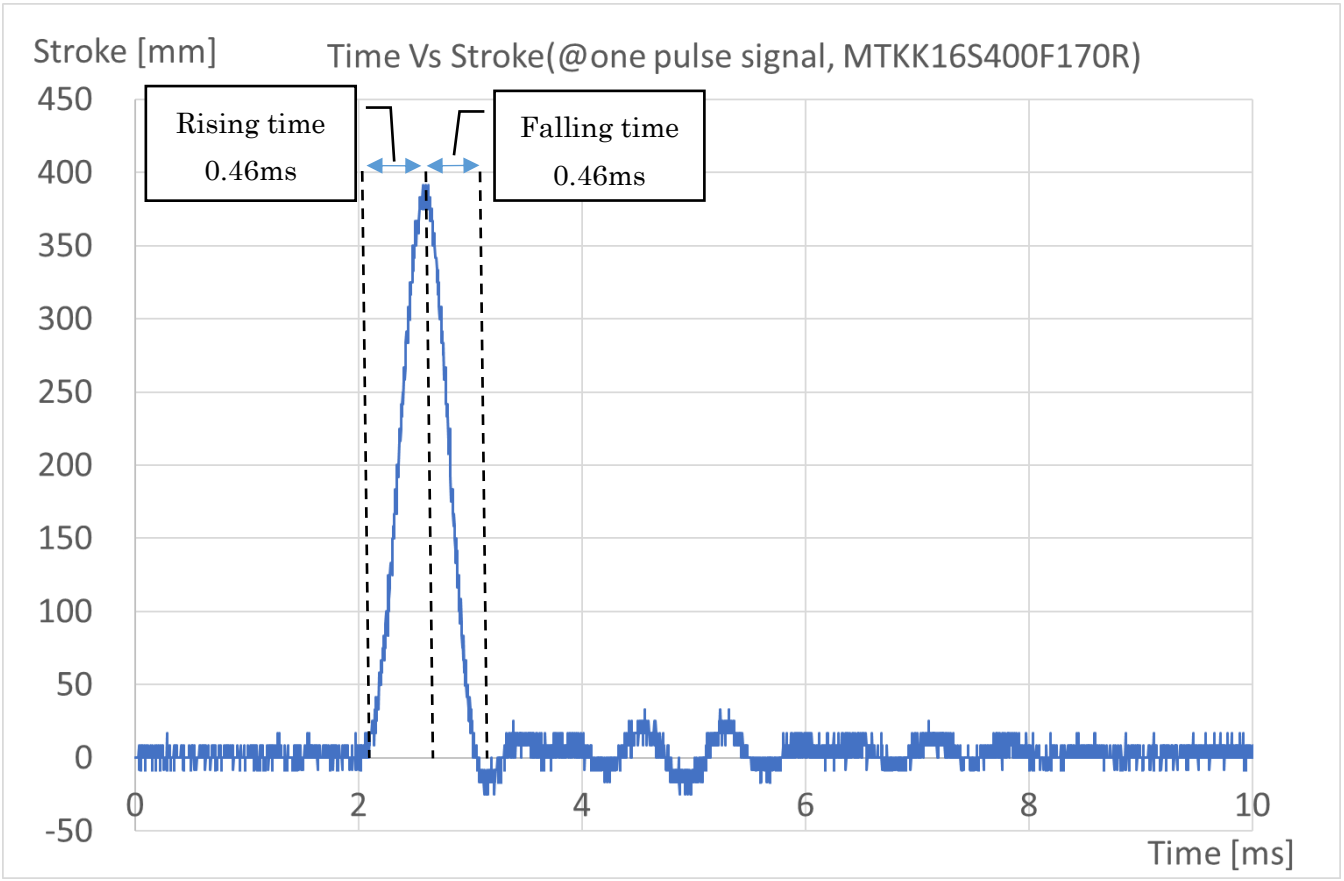


Note 1 : Single pulse signal with MTDD1010 (External coil and resistor)

Setup:



Result:

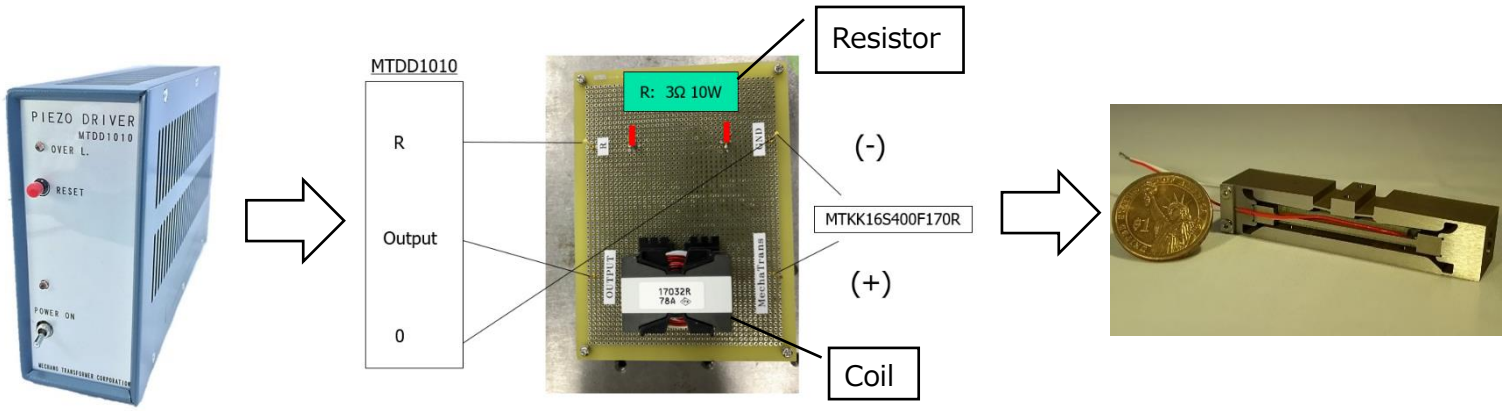


Conclusion:

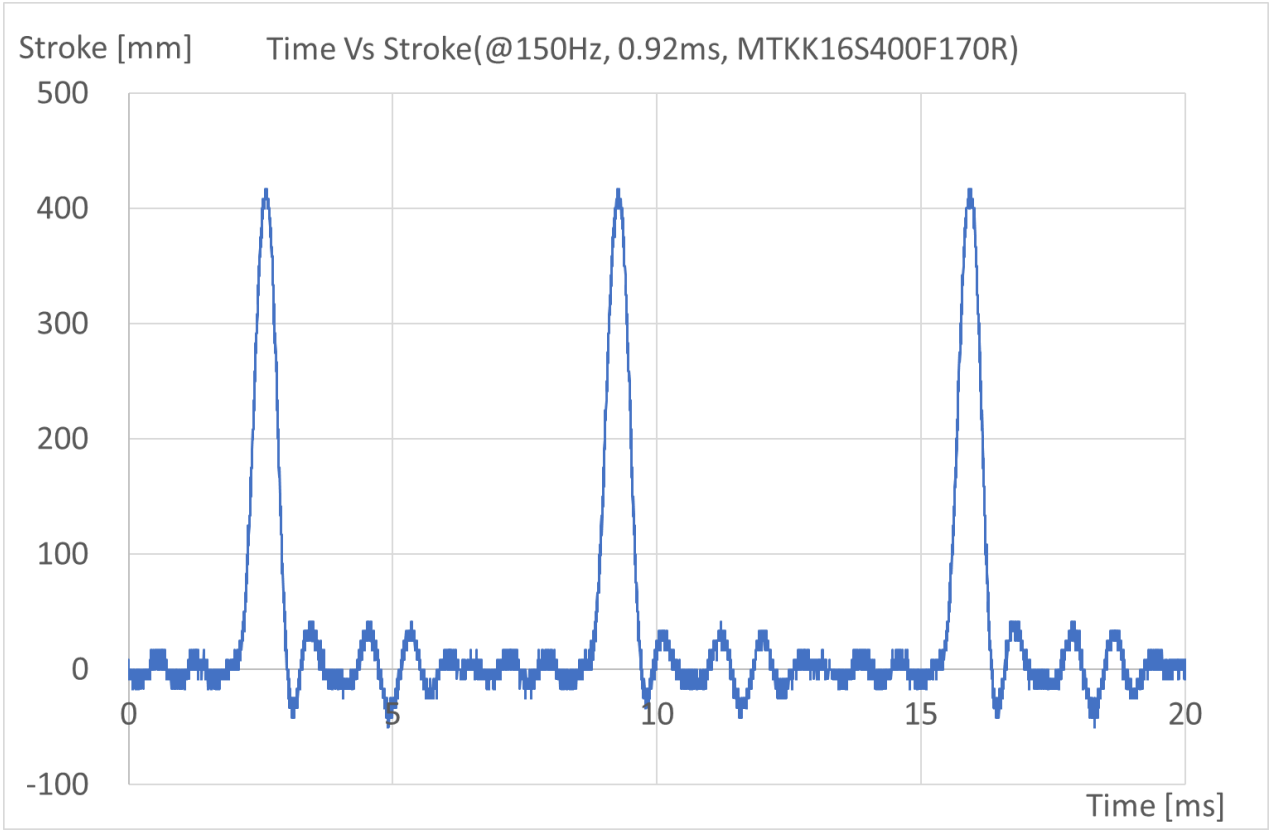
- The MTKK16S400F170R has a short rising time (0.46ms) and short falling time (0.46ms).

Note 2 : Continuous pulse signal with MTDD1010 (External coil and resistor)

Setup:



Result:



Conclusion:

- The MTKK16S400F170R can be driven continuously with a repeated frequency of 150Hz.
- The rising time and short falling time shown above is 0.46ms.