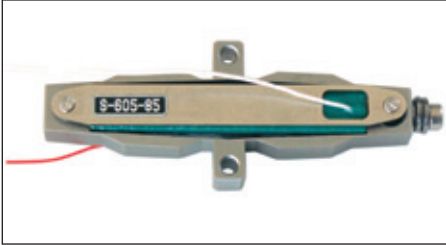


## PX 500 Piezo Based Actuator with Long Travel Range for Valve Technology



▲ PX 500 piezo based actuator for valve technology

piezosystem jena, provider of piezo electrical stages for micro- and nano-positioning, designed the PX 500 as an ideal solution for valve system applications that require fast, and accurate opening and closing.

With the dimension of  $48 \times 20 \times 8$  mm<sup>3</sup> (l × w × h) the PX 500 is capable of generating a travel range of more than 500 μm. The integrated preload is applied by the use as a special steel spring. Therefore this system is suitable for dynamic applications with a very short response time. The unloaded resonant frequency is 418 Hz.

The maximum driving voltage of the piezo electrical ceramic is 130 V DC. A flexible polyimid insulation material, used only by piezosystem jena, covers the ceramic. This coating is designed specifically for better reliability in high speed application.

Two apertures with a diameter of 2.2 mm are located on both sides. This allows for an easy installation into an existing system.

The voltage signal noise is the only limiting factor in the resolution of piezelectrical positioning systems. Therefore this system is extremely well suited for high precision positioning with nanometer accuracy.

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