FAQ's TO FERROPERM PIEZOCERAMICS

QUESTION

How can I see in which direction a shear plate is poled?

ANSWER:

The indication of polarity on a shear plates can be specified by the customer, but there are a few "standard" methods, which are widely used within the industry.

The most normal way to indicate the direction of polarisation is to remove a single, or both, corners at the face, where the positive polarisation electrode was. Another method is to make a small ink-dot close to the positive edge.

For shear parts it makes no difference if you turn the plate corresponding to a rotation of the polarisation vector (flip the plate over).

A shear plate however has no sensitivity in any other direction than the polarisation direction, so turning the plate corresponding to a horizontal 90 degree turn of the polarisation vector should therefore be avoided at all cause.
Normally a shear plate is designed in rectangular shape to avoid such mistakes.

The nomenclature for shear plates is always to give the dimension in the polarisation (3) direction first, then the dimension in the 2-direction, and finally the direction (1) of applied/generated field (distance between electrodes).

Example:
A 1 mm thick plate that is 10 mm wide, poled along a 5 mm long side and then electroded on the large faces, will thus be called: 5x10x1 mm.

Hejreskovvej 18 • DK-3490 • Kvistgaard • Denmark • Tel +45 - 49 12 71 00 • Fax +45 - 49 13 81 88
E-Mail: pz@ferroperm-piezo.com • Internet: www.ferroperm-piezo.com