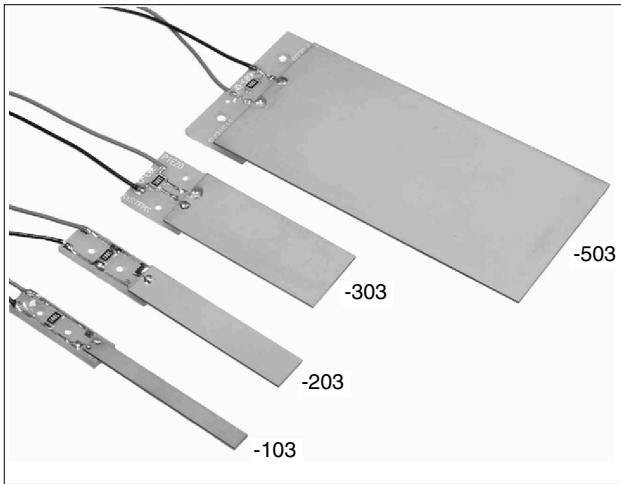


### STANDARD QUICK-MOUNT BENDING GENERATOR PRE-MOUNTED AND WIRED, ONE END



#### DESCRIPTION

When a mechanical force causes a suitably wired and polarized 2-layer element to bend, one layer is compressed and the other is stretched. Charge develops across each layer in an effort to counteract the imposed strain. This charge may be collected for strain sensing or power generation.

Quick-Mount bending sensors save users the trouble of mounting and wiring transducer elements. They are easily attached and removed from equipment using the two clearance holes in the PCB mounts. They are wired for parallel operation. The user may opt to remove the board mounted bleed resistor which protects the transducer and user electronics from transient voltages arising from thermal and mechanical shocks. The user provides the mechanical connection between the transducer tip and the mechanical source. Standard Quick-Mount Benders are more economically priced than other Quick-Mount configurations, and are generally stocked for immediate delivery.

Standard Quick-Mount Benders employ T220-A4-103Y, T220-A4-203Y, T220-A4-303Y or T220-A4-503Y standard brass reinforced transducers.

Dimensions for Standard Quick-Mounts are shown on [page 41](#).

Custom configurations and sizes: Upon request.

**ROHS:** Compliant. Piezo exempt.

#### PERFORMANCE: QUICK-MOUNT BENDING GENERATORS (Cantilever mount)

VALUES TO BE USED AS GUIDELINES

| PART NUMBERS<br>(QUICK-MOUNT<br>BENDING GENERATORS) | PIEZO MATERIAL | WEIGHT (grams) | STIFFNESS (N/m)     | CAPACITANCE (nF)<br>(Parallel Operation) | RATED TIP DEFLECTION ①<br>(mm <sub>peak</sub> ) | RATED FREQUENCY ①<br>(Hz) | OPEN CIRCUIT VOLTAGE ①<br>At rated deflection, parallel operation<br>(V <sub>peak</sub> ) | CLOSED CIRCUIT CURRENT ①<br>Per sinusoidal cycle, at rated deflection,<br>parallel operation. (μA <sub>peak</sub> / Hz) | RATED OUTPUT POWER ①<br>At rated deflection and frequency<br>(mW <sub>rms</sub> ) |
|---|----------------|----------------|---------------------|--|---|---------------------------|---|---|---|
| Q220-A4-103YB                                       | 5A4E           | 0.9            | 1.9x10 <sup>2</sup> | 12                                       | ± .38   | 250                       | ± 16.5  | ± 2.2   | 1.1   |
| Q220-A4-203YB                                       | 5A4E           | 1.4            | 3.8x10 <sup>2</sup> | 26                                       | ± .38   | 250                       | ± 16.5  | ± 4.4   | 2.3   |
| Q220-A4-303YB                                       | 5A4E           | 2.3            | 7.6x10 <sup>2</sup> | 52                                       | ± .38   | 250                       | ± 16.5  | ± 8.8   | 4.5   |
| Q220-A4-503YB                                       | 5A4E           | 9.5            | 2.4x10 <sup>2</sup> | 260                                      | ± 1.57  | 45                        | ± 18.1  | ± 46  | 4.7   |



-103, -203, and -303 Quick-Mount generator performance is based on an active bending length of 1.125". -503 performance based on 2.25" active length. Quick-Mount performance is based on the force being applied at the outermost tip of the transducer

#### PRICE & ORDERING INFORMATION

| PART NO.                            | 1 pc          | 5     | 25    | 100   |       |
|-------------------------------------|---------------|-------|-------|-------|-------|
| Std QM Bending Generator, -103 Size | Q220-A4-103YB | \$197 | \$105 | \$65  | \$55  |
| Std QM Bending Generator, -203 Size | Q220-A4-203YB | \$175 | \$114 | \$70  | \$58  |
| Std QM Bending Generator, -303 Size | Q220-A4-303YB | \$197 | \$125 | \$81  | \$69  |
| Std QM Bending Generator, -503 Size | Q220-A4-503YB | \$241 | \$169 | \$131 | \$115 |