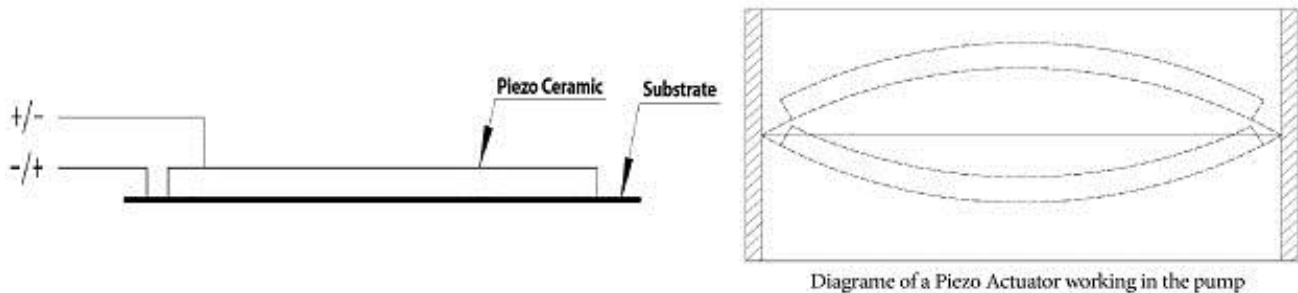


Circular Piezo Ceramic Actuators (unimorph and bimorph actuator)

The Circular Piezo Actuator is constructed with a substrate and one (Unimorph) or two (Bimorph) Piezo disc(s) by binding. Once it is subjected to a sine wave, which will cause piezo disc to expand or contract, the form of displacement will be similar to a sine wave. In the application of pump this action will cause pressure differences in between the inside and outside of the chamber, thus pushing the fluid to move.



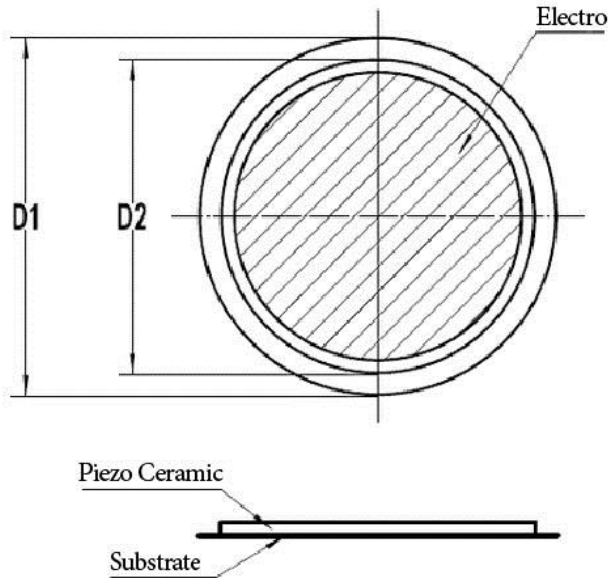
Features:

1. Low Power Consumptions , High Efficiency and , Fast response
2. Small in size and Thin in Thickness, Light in weight, Low Noise
3. Widely used in air and fluid pumps
4. Flow rate can be accurately controlled and adjusted
5. Can be driven using 5Vdc/24Vdc of 110Vac/220Vac

Applications:

1. Liquid Cooling Systems for CPU, Computer, LED Lights and etc.
2. Air or fluid moving equipments, i.e. air pump for fish tank, automatic espresso machine, Propane stove and etc.
3. Medical Equipment, i.e. Blood pressure monitor, Insulin Dosing machines and etc.
4. Printer Bulk Ink Supply Systems
5. Portable Electronics, i.e. Proton Exchange Membrane Fuel Cell, Direct-Methanol Fuel Cell
6. Automatic Lubricant Supply System for Precision Instruments

Structure of Actuator



Description P/N	D×T(mm)	Capacitance C ^T (nF) @1V , 100Hz	Displacement (μm) @155 V _{p-p}
QDTA27-0.5-1	27 dia. × 0.5 PZT : 24dia. x 0.3	55±15%	50-80
QDTA41-0.6-1	41 dia. × 0.6 PZT : 36 dia. x 0.3	115±15%	70-110
QDTA55-0.55-1	55 dia. × 0.5 PZT : 48dia x 0.3	245±15%	130-170

Specifications:

Note: Custom size and specifications available upon request.

Recommended Operative Conditions:

Operating Temperature : -10°C ~ +70°C

Operating Voltage : 100 VDC ~ 115 VDC

Maximum Voltage : 120VDC

Operating Frequency : 50Hz ~ 60Hz