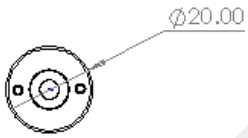
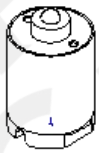
Product specification

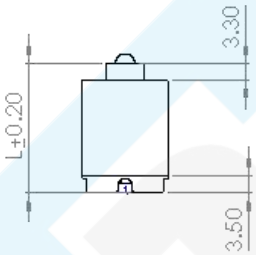
The **DCSA3-R20** is an integrated structure composed of a piezoelectric ceramic stack, a flexible hinge support structure, and a housing. The coaxial shielded wire leads out the electrodes, and the moving cap end, fixed base, and connector can all be customized.

DCSA3-R20

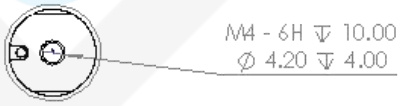
Product Size







型号	长度 L(mm)	行程
R20H37P20	37	20
R20H55P40	55	40
R20H73P55	73	55
R20H91P75	91	75
R20H127P100	127	100



Product specification

Performance Parameters

Model Name	Tolerance Range	R20H37P20	R20H55P40	R20H73P55	R20H91P75	R20H127P100
Motion Mode						
Motion Direction	/	Z	Z	Z	Z	Z
Displacement (0-150V) (μm)	± 15%	20	40	55	75	100
Positioning Method						
Z-axis Fixed End	±15%	M4↧ 4	M4↧ 4	M4↧ 4	M4↧ 4	M4↧ 4
Drive Performance						
Drive Method	/	Piezo Controller	Piezo Controller	Piezo Controller	Piezo Controller	Piezo Controller
Capacitance (μF)	± 15%	7	10	16	24	36
Hysteresis	/	<15%	<15%	<15%	<15%	<15%
Mechanical Properties						
Stiffness	/	190	95	69	50	38
Resonant Frequency (kHz)	/	52	35	24	19	11
Z-axis Thrust (N)	/	3800	3800	3800	3800	3800
Z-axis Tension (N)	/	200	200	200	200	200
Material	/	Stainless Steel (304)	Stainless Steel (304)	Stainless Steel (304)	Stainless Steel (304)	Stainless Steel (304)
Outer Diameter	±0.05	∮20	∮20	∮20	∮20	∮20
Length (mm)	±0.3	37	55	73	91	127
Other						
OperatingTemperature Range (°C)	/	-25 ~ 130	-25 ~ 130	-25 ~ 130	-25 ~ 130	-25 ~ 130
Cable	/	RG-178	RG-178	RG-178	RG-178	RG-178
Connector Model	/	PFG.0B.302.GLLD30Z				
Cable Length (mm)	/	>350	>350	>350	>350	>350

- All specifications are quoted at 25°C, unless otherwise stated.
- The displacement may vary slightly for different loads, and the maximum displacement occurs when used with the recommended load.

Product specification

Performance Curve

(The performance curve is based on actual measurements. The performance curve for customized products will be updated after production is completed.)

- These temperature rises were measured after applying a sine-wave drive voltage ranging from 0 to 150V at the specified frequency for 10 minutes.

Matters Needing Attention

1.The piezoelectric actuator contains a piezoelectric stack inside, and the electrodes of the piezoelectric stack are led out through a coaxial shielded cable. The connector is a LEMO connector.

2.The piezoelectric ceramic actuator should be stored in vacuum packaging, and the discharge resistor should remain connected during storage.

3.Do not immerse the piezoelectric stack in organic solvents or expose it to flammable gases or liquids.

4.Do not disassemble the piezoelectric actuator.

5.Handle with care to avoid dropping, as the piezoelectric ceramic actuator is prone to breaking.