

> CTEC: COMPACT, DYNAMIC, PRECISE

Dynamic conditions are particularly challenging! They require systems capable of generating or handling large accelerations. Reactivity and reliability of actuators developed by CTEC make them unique for high dynamic applications.

However integration and loading conditions being equally important, we invite you to get in touch with our engineers at actuator@cedrat-tec.com to discuss your application.

> TABLE OF STANDARD PROPERTIES OF USE AND MEASUREMENT

The properties defined in the table below, are set up according to the technical conditions of use and measurement. These properties are warranted within their variation range and in compliance with the standard technical conditions of use.

PROPERTIES	STANDARD TECHNICAL CONDITIONS	UNIT	NOMINAL VALUES	MIN. VALUES	MAX. VALUES
Notes		-	-	-	-
Max. no load displacement	Quasistatic excitation, blocked-free	μm	129.83	117	149
Blocked force	Quasistatic excitation, blocked-free	N	6753	5740	7766
Stiffness	Quasistatic excitation, blocked-free	N/μm	52.01	41.61	57.21
Resonance frequency (free-free)	Harmonic excitation, free-free, on the admittance curve	Hz	6175.44	5249	6793
Response time (free-free)	Harmonic excitation, free-free, on the admittance curve	μs	80.97	72.87	93.11
Resonance frequency (blocked-free)	Harmonic excitation, blocked-free, on the admittance curve	Hz	3087.72	NA	NA
Response time (blocked-free)	Harmonic excitation, blocked-free, on the admittance curve	μs	161.93	NA	NA
Capacitance	Quasistatic excitation, free-free, on the admittance curve	μF	72.00	64.80	93.60
Max. tensile force	Static effort, blocked-free	N	2400.00	1800	2400
Resolution	Quasistatic excitation	nm	1.30	-	-
Height (in actuation direction)		mm	140.00	139.80	140.20
Depth (base)		mm	30.00	29.90	30.10
Width (base excl. wedge & wires)		mm	30.00	29.00	31.00
Width (base incl. wedge & wires)		mm	30.00	29.00	31.00
Mass		g	384.00	-	-
Standard mechanical interface (top)	1 centered M5 threaded hole 6 mm deep & 4 M3 threaded holes on Ø 20 mm 6 mm deep	-	-	-	-
Standard mechanical interface (base)	1 centered M5 threaded hole 6 mm deep & 4 M3 threaded holes on Ø 20 mm 6 mm deep	-	-	-	-
Standard electrical interface	2 PTFE insulated AWG26 wires 100 mm long with Ø 1 banana plug	-	-	-	-

> PROPERTIES STANDARD TECHNICAL CONDITIONS OF USE AND MEASUREMENT

Free-free :	The actuator is not fixed
Blocked-free :	The actuator is fixed to a mechanical support assumed infinitely stiff
Quasistatic excitation :	AC voltage between -20 and 150 V at 1 Hz
Harmonic excitation :	Voltage of 0.5 Vrms, sinusoidal mode from 0 to 100 kHz
Max. harmonic excitation :	Voltage defined by the measurement of max. displacement, sinus at resonance frequency
Displacement measurement :	Laser interferometer, capacitive displacement sensor
Admittance measurement :	HP 4194 A or Cypher C60 electrical impedance analyser
Environment :	Ambient temperature (15-25°C) and dry air (Humidity < 50 % rH)

Any technical conditions of use, different from those defined above, can lead to temporary or definitive alterations of properties. Thank you to contact CEDRAT TECHNOLOGIES before using actuators under non standard technical conditions.

> FACTORY TESTS CARRIED OUT

- Test 1 : Electrical admittance vs. Frequency, free-free
- Test 2 : Displacement vs. input voltage

> OPTIONAL EXTRA FACTORY TESTS

- Test 3 : Gain and linearity of the sensor
- Test 4 : Step response in closed loop
- Test 5 : Stability in closed loop



OPTIONAL MECHANICAL INTERFACE

- [FI] Flat Interface
- [FF] Free-free Interface
- [H] Flat Interface with hole
- [SI] Specific interface
- [TH] Flat Interface with threaded hole

AVAILABLE OPTIONS

- [SG] Strain gauges
- [ECS] Eddy current displacement sensor
- [NM] Non-magnetic
- [VAC] Vacuum
- [SV] Specific version

2D CONFIGURATION

