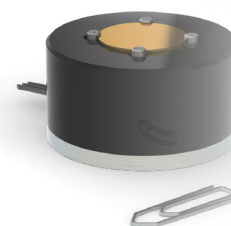


TABLE OF STANDARD PROPERTIES OF USE AND MEASUREMENT

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		-	-	-	-
Sensor options	SG, ECS	-	-	-	-
Mastered motions	TZ, RX	-	-	-	-
TZ max. no load displacement	Quasistatic excitation, blocked-free	µm	200	180	230
RX Angular displacement		µm	1.00	0.60	1.40
Blocked force	Quasistatic excitation, blocked-free	µrad	240.00	204.00	276.00
Stiffness	Quasistatic excitation, blocked-free	µrad	50.00	42.50	57.50
Unloaded resonance frequency (in the actuation's direction)	Harmonic excitation, blocked-free, on the admittance curve	N	118	94	142
Response time	Quasistatic excitation, blocked-free	N/µm	0.59	0.47	0.65
Capacitance (per electrical port)	Quasistatic excitation, free-free, on the admittance curve	Hz	580	464	667
Angular resolution		ms	0.86	0.78	0.99
Vertical resolution		µF	6.30	5.67	8.19
Height (Z axis)		nm	20.00	-	-
Diameter		mm	22	21.90	22.20
Mass		mm	100 *100	-	-
Standard mechanical interface (payload)	Flat surface Ø25.4mm (1")	g	180	-	-
Standard mechanical interface (frame)	4 M3 threaded holes on Ø48mm	-	-	-	-
Standard electrical interface	"Actuators connection: 1.5m wire with Lémo FGG.00.303.CLAD22 connector -SG option: 1.5m wire with Lémo FGG.00.304.CLAD22 connector -Ecs option: 1m wire with Radiall R113081000W connector"	-	-	-	-

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 V _{rms} , 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

AVAILABLE OPTIONS

- [SG] Strain gauges
- [SV] Specific version / customization
- [ECS] Eddy current sensor
- [VAC] Vacuum
- [SI] Specific interface
- [NM] Non-magnetic

➤ 2D CONFIGURATION

