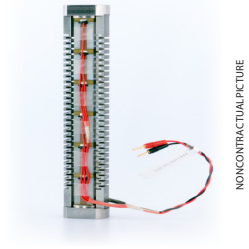


> CTEC: COMPACT, DYNAMIC, PRECISE

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.



NON CONTRACTUAL PICTURE

> 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	130	117	149
Blocked force	Quasistatic excitation, blocked-free	N	2957	2514	3401
Stiffness	Quasistatic excitation, blocked-free	N/μm	23	18	25
Resonance frequency (free-free)	Harmonic excitation, free-free, on the admittance curve	Hz	6175	5249	6793
Response time (free-free)	Harmonic excitation, free-free, on the admittance curve	μs	81	73	93
Resonance frequency (blocked-free)	Harmonic excitation, blocked-free, on the admittance curve	Hz	3088	NA	NA
Response time (blocked-free)	Harmonic excitation, blocked-free, on the admittance curve	μs	162	NA	NA
Capacitance	Quasistatic excitation, free-free, on the admittance curve	μF	72.0	64.8	93.6
Max. tensile force	Static effort, blocked-free	N	1200	900	1200
Resolution	Quasistatic excitation	nm	1.30	-	-
Height (in actuation direction)		mm	137.00	136.80	137.20
Depth (base)		mm	23.50	23.40	23.60
Width (base excl. wedge & wires)		mm	18.00	17.00	19.00
Width (base incl. wedge & wires)		mm	18.00	17.00	19.00
Mass		g	188.00	-	-
Standard mechanical interface (top)	1 centered M3 threaded hole 5 mm deep & 4 M2.5 threaded holes on Ø 15 mm 4 mm deep	-	-	-	-
Standard mechanical interface (base)	1 centered M3 threaded hole 5 mm deep & 4 M2.5 threaded holes on Ø 15 mm 4 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

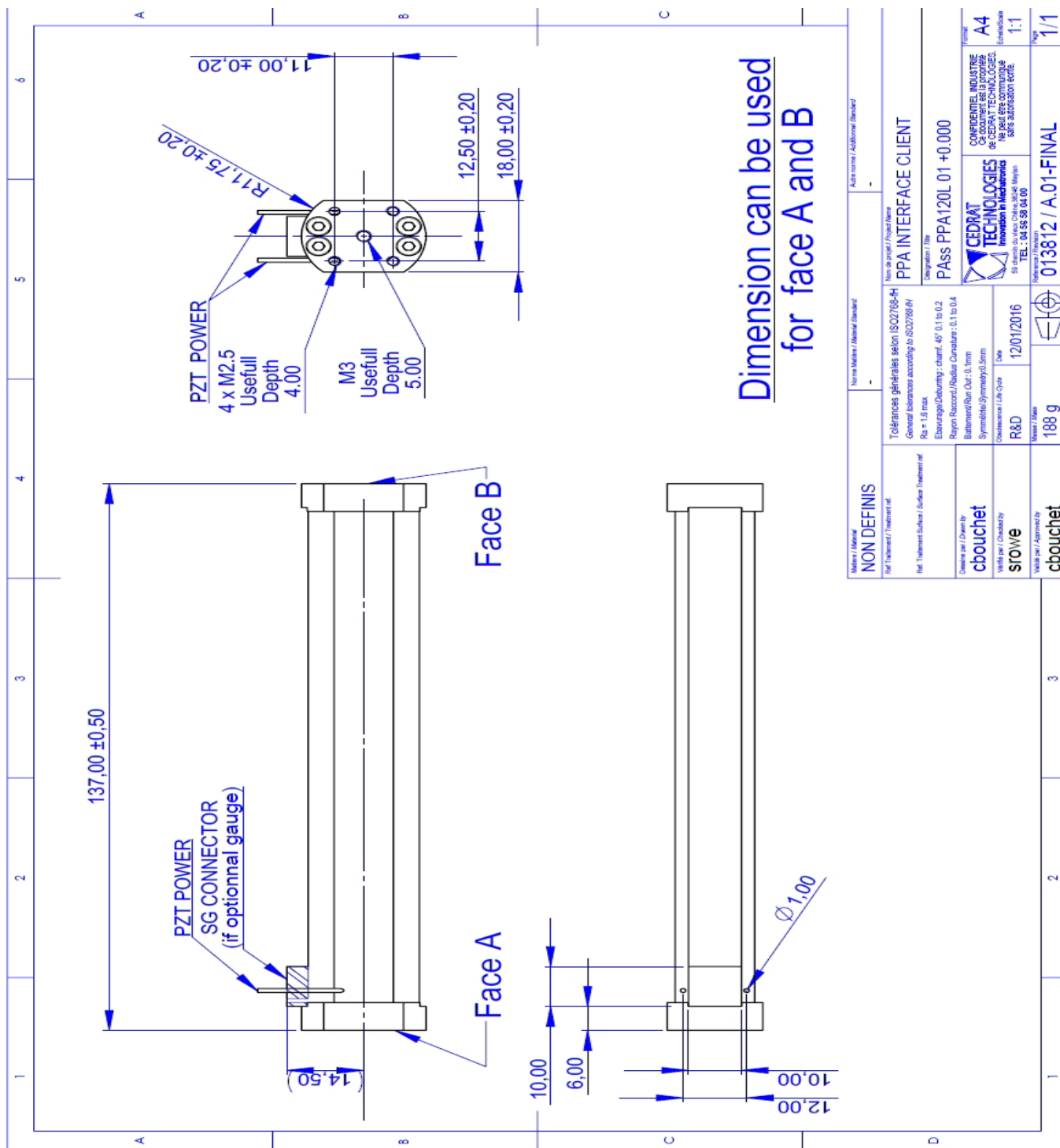
OPTIONAL MECHANICAL INTERFACE

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

2D CONFIGURATION



**Dimension can be used
for face A and B**

Norme Matière / Material Standard	Adaptation / Additional Element
Norme Matière / Material Standard	Adaptation / Additional Element
NON DEFINIS	NON DEFINIS
Net Treatment / Surface Treatment of	Net Treatment / Surface Treatment of
Net Treatment / Surface Treatment of	Net Treatment / Surface Treatment of
Drawn and / Drawn by	Drawn and / Drawn by
cbouchet	cbouchet
Valid par / Checked by	Valid par / Checked by
stowe	stowe
R&D	R&D
Date	Date
12/01/2016	12/01/2016
Chaqueuse / Operator	Chaqueuse / Operator
M&M	M&M
188 g	188 g
013812 / A.01-FINAL	013812 / A.01-FINAL
1/1	1/1