

▶ 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.



NON-CONTRACTUAL PICTURE

PROPERTIES	STANDARD TECHNICAL CONDITIONS	UNIT	NOMINAL VALUES	MIN. VALUES	MAX. VALUES
Notes		-	-	-	-
Max. no load displacement	Quasistatic excitation, blocked-free	μm	135.45	122	196
Blocked force	Quasistatic excitation, blocked-free	N	7000	5600	8400
Stiffness	Quasistatic excitation, blocked-free	N/μm	51.68	41.34	56.85
Resonance frequency (free-free)	Harmonic excitation, free-free, on the admittance curve	Hz	6208.00	5277	6829
Response time (free-free)	Harmonic excitation, free-free, on the admittance curve	μs	80.54	72.49	92.62
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	1.35	-	-
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

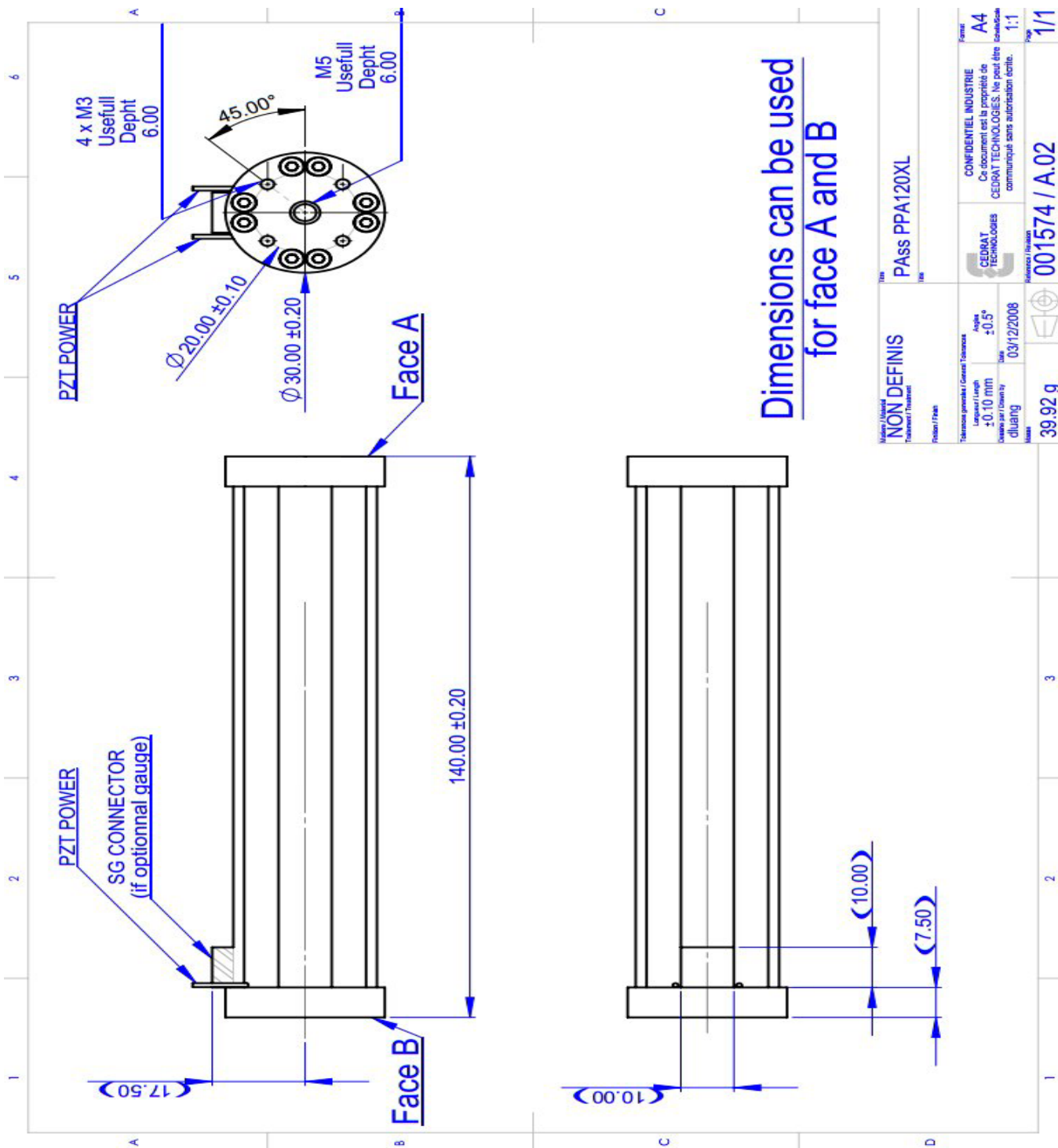
▶ OPTIONAL MECHANICAL INTERFACE

- | | | |
|---|---|--|
| <input type="checkbox"/> [FI] Flat Interface | <input type="checkbox"/> [H] Flat Interface with hole | <input checked="" type="checkbox"/> [TH] Flat Interface with threaded hole |
| <input type="checkbox"/> [FF] Free-free Interface | <input checked="" type="checkbox"/> [SI] Specific interface | |

▶ AVAILABLE OPTIONS

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> [SG] Strain gauges | <input type="checkbox"/> [ECS] Eddy current displacement sensor | <input checked="" type="checkbox"/> [SV] Specific version |
| <input type="checkbox"/> [NM] Non-magnetic | <input checked="" type="checkbox"/> [VAC] Vacuum | |

➤ 2D CONFIGURATION



Dimensions can be used for face A and B

Model / Modèle NON DEFINIS	Type PASS PPA120XL	Formet A4
Fabricator / Fabricant CEDRAT TECHNOLOGIES	Reference / Référence 001574 / A.02	Scale / Échelle 1:1
Material / Matière Aluminum 6061-T6 / Aluminium 6061-T6	Quantity / Quantité 39.92 g	Page 1/1
Length / Longueur ± 0.10 mm	Angle $\pm 0.5^\circ$	Confidentiality / Confidentialité CONFIDENTIEL INDUSTRIE
Drawn par / Dessiné par diluang	Date 03/12/2008	Copyright / Droits réservés CEDRAT TECHNOLOGIES. Ne peut être communiqué sans autorisation écrite.