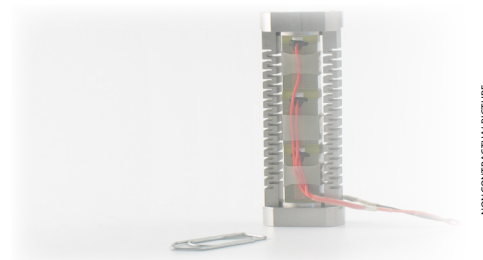


## TABLE OF STANDARD PROPERTIES OF USE AND MEASUREMENT

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	68.87	62	100
Blocked force	Quasistatic excitation, blocked-free	N	3500	2800	4200
Stiffness	Quasistatic excitation, blocked-free	N/μm	50.82	40.66	55.90
Resonance frequency (free-free)	Harmonic excitation, free-free, on the admittance curve	Hz	10956.00	9313	12052
Response time (free-free)	Harmonic excitation, free-free, on the admittance curve	μs	45.64	41.07	52.48
Capacitance	Quasistatic excitation, free-free, on the admittance curve	μF	20.00	18.00	26.00
Max. tensile force	Static effort, blocked-free	N	1200.00	900	1200
Resolution	Quasistatic excitation	nm	0.69	-	-
Height (in actuation direction)		mm	77.00	76.80	77.20
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	117.00	-	-
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 V <sub>rms</sub> , 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

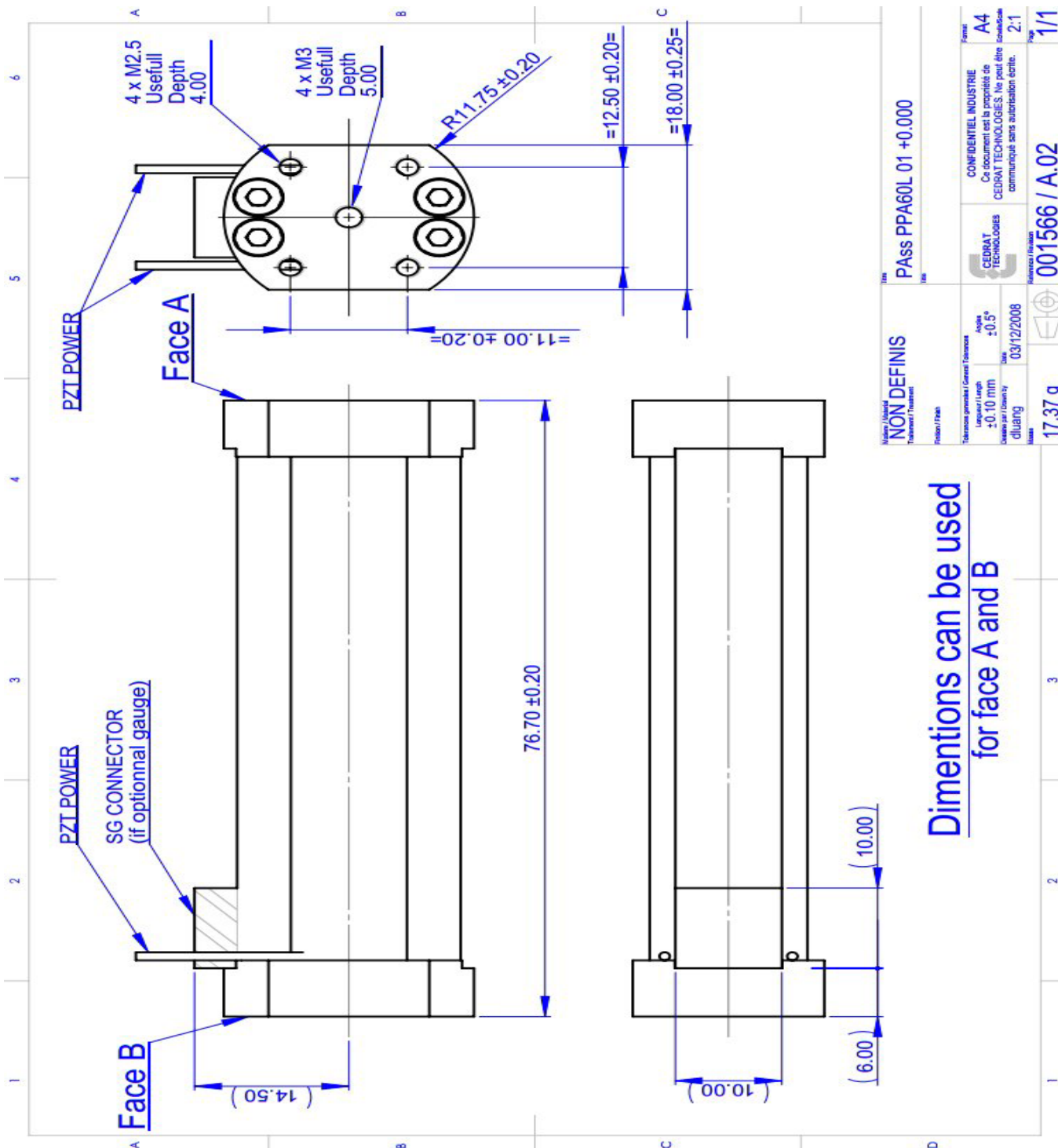
## OPTIONAL MECHANICAL INTERFACE

- |   |   |  |
|---|---|--|
| <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 / Customization |
| <input type="checkbox"/> [NM] Non-magnetic             | <input checked="" type="checkbox"/> [VAC] Vacuum                |   |

➤ 2D CONFIGURATION



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