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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

NOTES

PROPERTIES	STANDARD TECHNICAL CONDITIONS	UNIT	NOMINAL VALUES	MIN. VALUES	MAX. VALUES
Sensor options	SG, ECS	-	-	-	-
Mastered motions	TX, TY, TZ	-	-	-	-
Max. no load displacement (Tx, Ty, Tz)	Quasistatic excitation, blocked-free	µm	200	180	250
Max. parasitic Z rotation		µrad	240.00	204	276
Max. parasitic XY rotation		µrad	50.00	43	58
Blocked force	Quasistatic excitation, blocked-free	N	118	94	142
Stifness	Quasistatic excitation, blocked-free	N/µm	0.59	0.47	0.65
Unloaded resonance frequency (in the actuation's direction)	Harmonic excitation, blocked-free, on the admittance curve	Hz	380	304	437
Unloaded response time	Quasistatic excitation, blocked-free	ms	1.32	0.00	1.51
Capacitance (per electrical port)	Quasistatic excitation, blocked-free, on the admittance curve	µF	6.30	5.67	8.19
Resolution		nm	20.00	-	-
Heigth (Z axis)		mm	49.00	48.90	49.20
Dimensions (X & Y axis)		mm	100*100	-	-
Mass		g	540.0	-	-
Standard mechanical interface (payload)	objective interface max 4/55*1.36 (to be specified)				
Standard mechanical interface (frame)	4 Ø 4.5 mm holes on [] 84				
Standard electrical interface	2 RG178B/U coaxial cables with Harwin connectors				
Standard electrical interface	2 RG178B/U coaxial cables with Harwin connectors				

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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**

AVAILABLE OPTIONS

- **[SG] Strain gauges**
- **[SV] Specific version / customization**
- **[SI] Specific interface**
- **[ECS] Eddy current displacement sensor (except Z Axis)**
- **[VAC] Vacuum**

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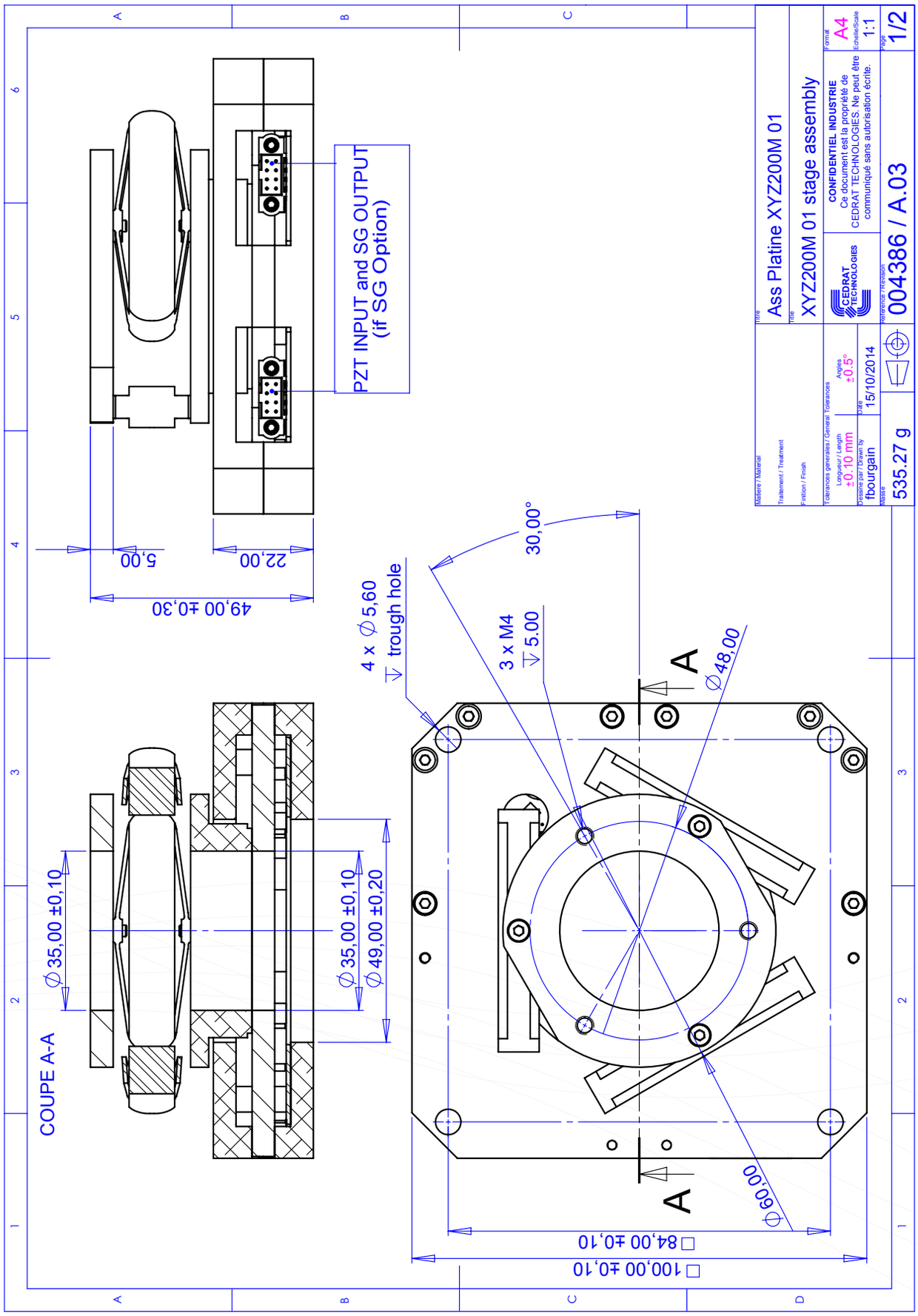
DRAWINGS



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TYPICAL PERFORMANCE CHARACTERISTICS