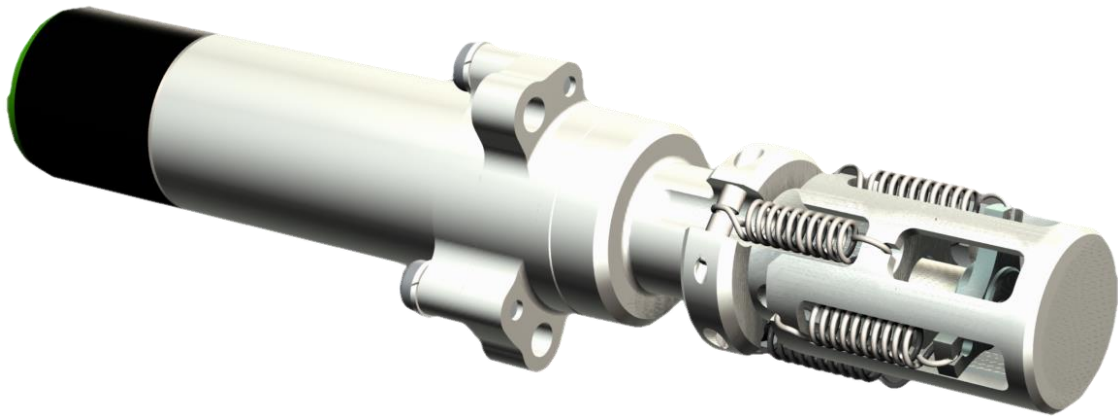


Update : 30/10/2015



*Non contractual photo*

## 1 - Description

The astatic electrical actuator  $\mu$ AME 12-SPACE provides bidirectionnal force of high precision and enable coupling with optics without any static friction.

Its design, patented by ISP System, is based on robust and reliable technologies.

The principle of force generation is based on the imbalance of a spring system:

At state "0", the pull and push springs are balanced.

The action of a screw-nut system changes the length of the thrust springs through a rod.

The motion is driven with a stepper motor. It can generate a stable and accurate driven strain, even unpowered thanks to its irreversible mechanical design.

Push and pull forces are generated on the travel direction of the rod which activate the springs.

The floating head enable the coupling with optical membrane: this technology allows angular and radial misalignments without any static friction.

Features can be modified to fit customer's requirements.

## 2 - Applications

The actuator  $\mu$ AME 12-Space has been developped to motorize active optics intended in particular for the wavefront correction.

Compatible with aerospace constraints.

### 3 - Technical Specification

#### Power supply:

Supply voltage	24V to 48V
Current (*)	450mA RMS

#### Performances :

Push/Pull force range	+/- 12N
Theoretical Resolution (1 step)	0,5mN
Advised mini Resolution	1mN
Speed	500mN/s

#### Technical data :

Screw nut	ISO M4 x 1
Quantity of springs	6 imbriqués
Planetary gear	Ratio 1 : 304
Stepper motor	24 step / tr

**Mass:** 0,080 kg

**Working temperature:** 15 to 25 °C

#### Environment:

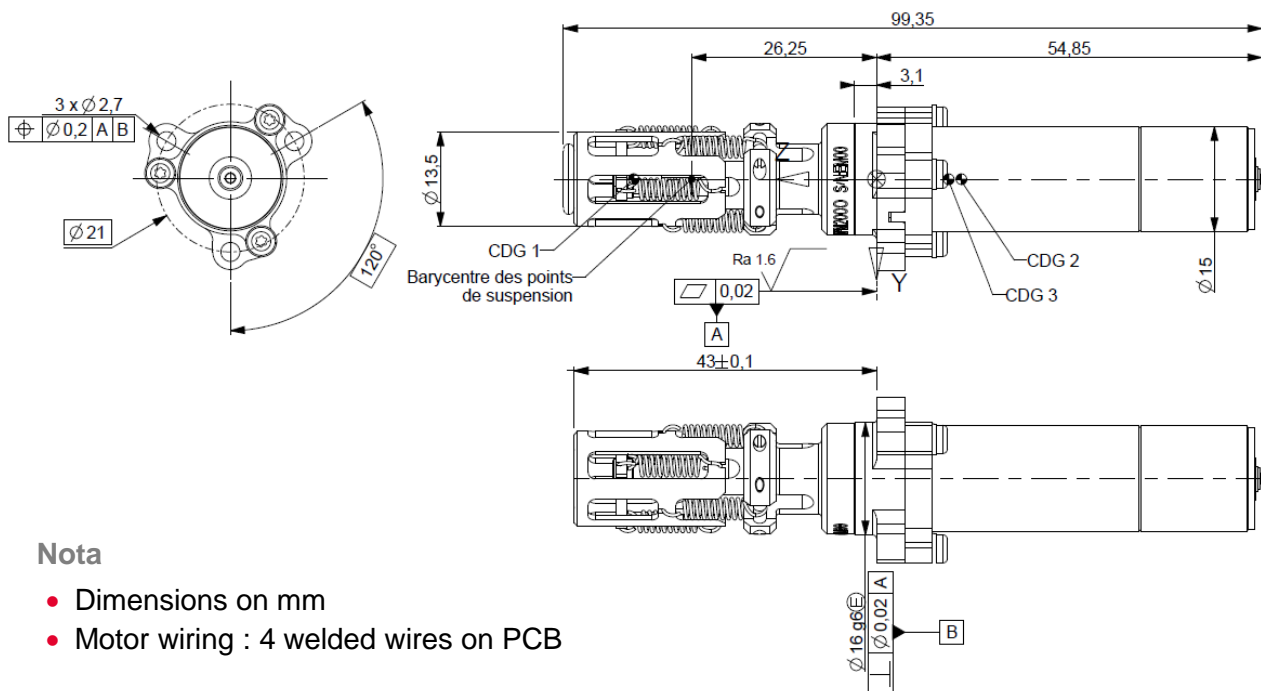
Configured for vacuum use.

#### Stiffness:

Axial Stiffness KZ : 8N/mm

Transversal stiffness KX / KY : negligible

### 4- Dimensions (mm)



#### Nota

- Dimensions on mm
- Motor wiring : 4 welded wires on PCB

*Technical data of this datasheet may be subject to modifications, depending on product updates*