MICRO POSITIONNING ACTUATOR VMP 50-30-SPACE

DATASHEET ISP

Update : 5/13/2019

1 - Description

The electrical micro positioning actuator produces micrometric displacement under forces up to ± 30N with a very high accuracy.

Its design is based on robust and reliable technologies validated by ISP System. The actuator is equipped with an anti rotation system of the rod.

In addition to its mechanical properties, this actuator has a high thermal stability. The working temperature range is from -60 ° C to + 80 ° C.

Packaging, design and components can be adapted to environment constraints.

2 - Applications

The Actuator VMP30-SPACE has been designed to work in harsh environment. It is compatible with space constraints. This version is specifically adapted for ACMAS project (*)

(*) ACMAS: R&D project driven by ISP System with the participation of CNES and DGA.

3 - Technical Specification

POWER SUPPLY	
Supply Voltage	24 V
Current (*)	450 mA RMS

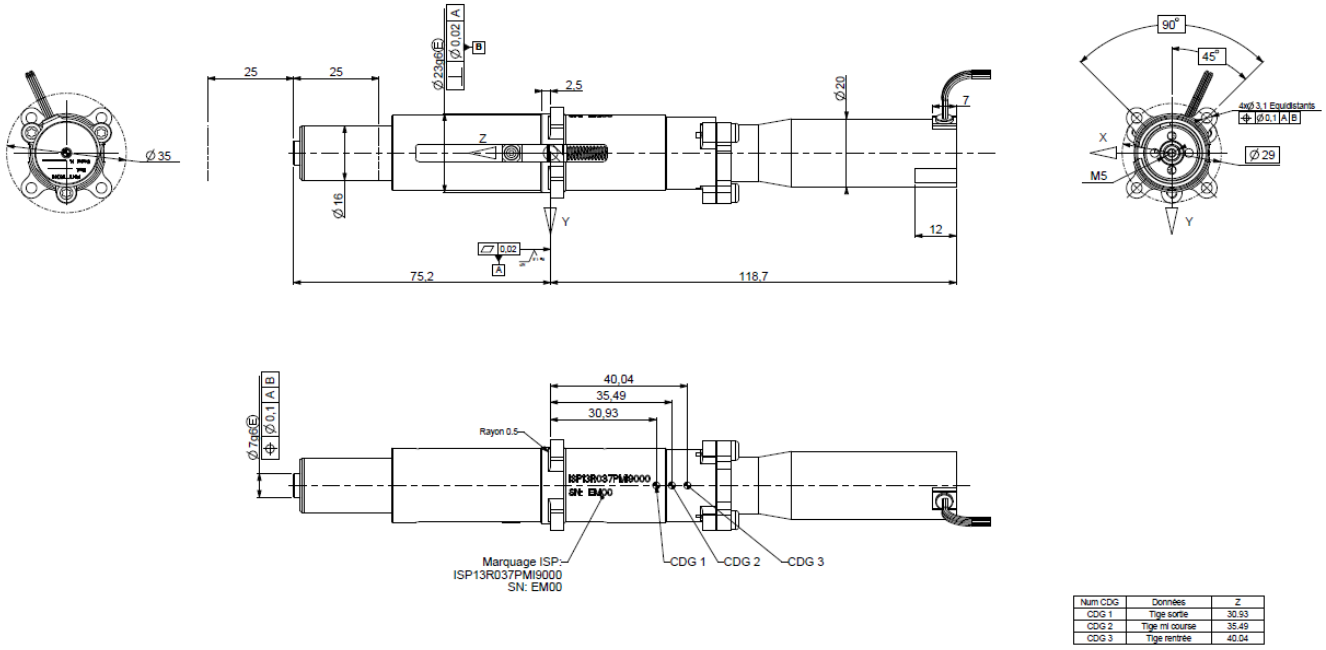
PERFORMANCES	
Force range	+/-30N
Travel range	50mm
Theorical Resolution (1 step)	<50nm/step
Speed	50 µm/s

TECHNICAL SPECIFICATIONS	
Leading screw	ISO M4 x 1
Lubrification	PVD MoS2
Planetary gear	Ration 196 : 1
Stepper motor	200 Step /

Weight	< 250g
Working temperature	-60 to +80°C
Environment	Set up for a Space vacuum sue
Stiffness	Axial stiffness KZ : >1N/mm Transverse stiffness KX / KY : negligible
Thermal expansion	Axial : ± 0,27 µm/°C No expansion at midstroke

(*) Average current recommended for use at atmospheric pressure. This value should be adapted according to the environment and working conditions.

4 - Dimensions



Num CDG	Données	Z
CDG 1	Tige sortie	30.93
CDG 2	Tige mi course	35.49
CDG 3	Tige rentrée	40.04

Nota

☐ Dimensions in mm

The data are for information only, subject to modifications. Other characteristics available upon demand.

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