

### APPLICATIONS

- > Biotechnology
- > Medical devices
- > Defence
- > Microscopy
- > Laboratory automation
- > Materials characterization
- > Digital imaging
- > Recreational equipment
- > Photonics

### KEY FEATURES

- > High versatility: adaptation to existing moving part
- > Large run-out tolerance
- > Blocking at rest. The power can be removed when the motor is positioned
- > Resistance to external forces (shock, vibrations). It is ideal for embedded applications
- > Strong miniaturisation possibilities
- > Non magnetic. The motor is MRI compatible and does not generate magnetic fields
- > High resolution within the nanometre range if required
- > Life time greater than 2000m
- > Severe environment compatibility (vacuum, cryogenic, clean environment...)

### RELATED PRODUCT

- > Linear Amplifier LA75B
- > Controller UC45

### SPECIFICATIONS

- > Preliminary

PARAMETER	TYPICAL VALUE	UNIT
<b>&gt; Stepping mode</b>		
Travel range <sup>(0)</sup>	$\infty$	mm
Nominal Speed <sup>(1) (2)</sup>	7	mm/s
Max speed <sup>(3)</sup>	10	mm/s
Typical step size <sup>(1) (2)</sup>	5 ... 26	$\mu\text{m}$
<b>&gt; Fine positioning mode</b>		
Stroke <sup>(1) (3)</sup>	45.0	$\mu\text{m}$
Resolution <sup>(3)</sup>	< 1	nm
Stiffness	3.80	N/ $\mu\text{m}$

## > Forces

Holding force without consumption	10	N
Nominal driving force <sup>(1) (2)</sup>	1.75	N
Max driving force <sup>(3)</sup>	2.5	N

## > Driver

Voltage pattern	Sawtooth-like	
Typical stepping frequency	200.00	Hz
Max voltage range	-20 ... 150	V
Typical peak current (pulsed) <sup>(2)</sup>	1.10	A
Capacitance	1.55	µF
Nominal driver	LA75B+UC45	

## > Mechanical properties

Lifetime <sup>(4)</sup>	> 2000	m
Height of module	20.00	mm
Width of module	20.00	mm
Length (in actuation direction)	50.00	mm
Mass	40.00	g
Max friction trip run-out	±200	µm
Tip stiffness (normal to surface)	12.00	N/mm

## ANNOTATIONS

*Guaranteed in lab environment*

*(0) Limited by moving part*

*(1) Unloaded*

*(2) With nominal driver*

*(3) Custom version and driver*

*(4) Unloaded, nominal speed, 50% duty-cycle, ambient conditions*

## MISCELLANEOUS

Operating temperature :	-40 °C ... +70 °C	
Connector :	2x Ø 1mm banana plug	
Cable :	PTFE insulated AWG30	
Cable length :	50mm long	

## OPTIONS

Longer stroke :	Please contact CTEC for more detail	
Non magnetic :	Please contact CTEC for more detail	
Magnetic Incremental sensor		