

## APPLICATIONS

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

## KEY FEATURES

- > High speed up to 20mm/s.
- > Blocking at rest. Position is preserved when power is removed.
- > Resistance to external forces (shock, vibrations). It is ideal for embedded applications
- > Strong miniaturisation possibilities.
- > High resolution within the nanometre range if required.
- > Life time greater than  $10^6$  cycles
- > Severe environment compatibility (vacuum, cryogenic, clean environment...)
- > Few parts: cost-effective solution for series

## RELATED PRODUCT

- > Stepping Piezo Controller SPC45



NON CONTRACTUAL PICTURE

## SPECIFICATIONS

- > Preliminary data

PARAMETER	TYPICAL VALUE	UNIT
<b>&gt; Stepping mode</b>		
Travel range	10	mm
Nominal Speed <sup>(1) (2)</sup>	10	mm/s
Max speed <sup>(3)</sup>	20	mm/s
Typical step size <sup>(1) (2)</sup>	5 ... 30	µm
<b>&gt; Fine positioning mode</b>		
Stroke <sup>(1) (3)</sup>	54.0	µm
Resolution <sup>(3)</sup>	< 1	nm
Stiffness	0.50	N/µm

## > Forces

Holding force without consumption	3	N
Nominal driving force <sup>(1) (2)</sup>	0.8	N
Max driving force <sup>(3)</sup>	2	N

## > Driver

Voltage pattern	Sawtooth-like	
Typical stepping frequency	700.00	Hz
Max voltage range	-20 ... 150	V
Typical peak current (pulsed) <sup>(2)</sup>	0.10	A
Capacitance	0.25	μF
Nominal driver	SPC45	

## > Mechanical properties

Lifetime <sup>(4)</sup>	> 1 000 000	cycles
Height	15.00	mm
Width	30.00	mm
Length (in actuation direction)	30.00	mm
Mass	30.00	g

## ANNOTATIONS

*Guaranteed in lab environment*

*(1) Unloaded*

*(2) With nominal driver*

*(3) Custom version and driver*

*(4) Unloaded, 2mm stroke, nominal speed, 50% duty-cycle*

## MISCELLANEOUS

Operating temperature :	+10 °C ... +70 °C	
Connector :	8 pins ERNI connector	

## INCLUDED ACCESSORIES

ERN 8 pins cable	30	mm
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## OPTIONS

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

## DRAWINGS

