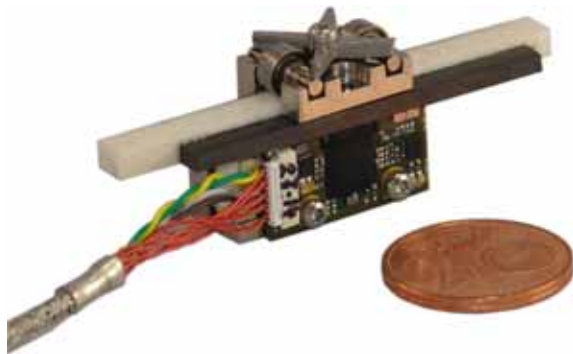


# Linear Piezo with integrated encoder



## LPE

- PiezoMotor driven system
- Travel range up to 80mm
- Bidirectional repeatability down to 20nm
- Maximum operation speed 10mm/sec
- Intergeated zerodrift encoder with 10 nm resolution
- Force 10N
- High stiffness and fast response.
- Material Stainless steel,
- Vacuum compatibe
- flexible cable
- optional ballbearing guided on 3 sites

The LPE product group is a customized PiezoMotor with integrated magnetic encoder and optional a ballbering guiding around the rod. There are several magnetic encoders and a cuppling available.

## Specifications:

LPE			
dimension mm	10.8*22*19		
Rod L (mm)	22 to 100		
Travel range (mm)	Rod lenth – 15mm		
Force (N)	6 - 10		
Open loop stiffness (N/μm)	3		
operation speed (mm/s)	10		
fast movement** (mm/s)	50		
Hybrid encoder V2 (nm) with ABZ, 18mA @ 5V ***	61(10)		
Hybrid encoder V3 (nm) with ABZLL, 18mA @ 5V ***	61(10)		
Hybrid encoder V4 (nm) with ABZ, 3mA @ 5V ****	10		
Bidirectional Repeatability (Encodercounts)	2		

## Linear Piezo with integrated encoder

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\*\* Fast movement is possible for a short time with the LEGS-Drive®-Ultra Controller  
 \*\*\* take a look at the datasheet Hybrid encoder V2, V3. 10nm resolution is possible with the LEGS-Drive®-Ultra Controller or MC101.  
 \*\*\*\* take a look at the datasheet Hybrid Encoder V4

### Order code for this product:

LPE-L-F-S-G-C-A

L = Length of rod 30/40/50/60/70/100 mm is standard other are possible.

F = force      6 or 10      6 or 10N

S = Sensors    S0            without sensor for open loop application  
                   V2\_61        61nm resolution (magnetic encoder) ABZ TTL  
                   V2\_O        Oversample function 10nm resolution (LEGS-Drive®-Ultra Controller or MC101; magnetic encoder) ABZ TTL  
                   V3\_61;      Oversample function 10nm resolution (magnetic encoder) ABZ, 2 limit, Error TTL  
                   V3\_O        Oversample function, 10nm resolution (LEGS-Drive®-Ultra Controller; magnetic encoder) ABZ, 2 limit, Error TTL  
                   V4\_10        10nm resolution (magnetic encoder) ABZErr TTL

G = guided    1            ballbearing guided included.  
                   0            unguided (need an external guiding)

C = Coupling  1            with Coupling  
                   0            without

A = atmosphere

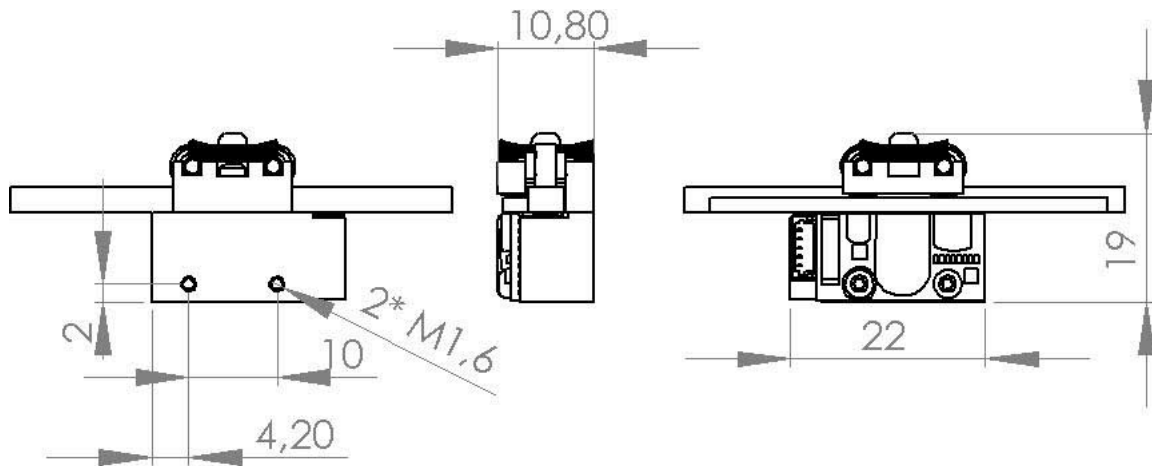
    N normal  
     V vacuum  
     HV High vacuum (please ask for force and life time)  
     UHV Ultra high Vacuum (please ask for force and life time)

So the order code could be for example: **LPE-50-10-V3\_61-1-1-N**

so the Piezomotor has a 50mm drive rod, 10N, the Encoder has 61nm resolution, ABZ, 2 limits and an error signal, the Drive rod with glued scale is guided, has a Coupling and is for normal atmosphere.

## Linear Piezo with integrated encoder

### Dimension:



Piezo Legs with integrated encoder and with or without guiding