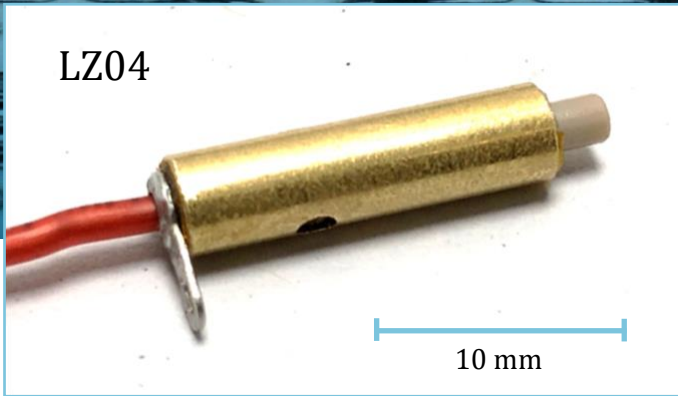


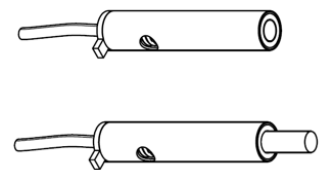
# memetis prototype plunger



The memetis ultracompact plunger with shape memory alloy spring enables high force combined with large stroke. The plungers are available with different outer diameters: 3.0 mm, 4.0 mm and 6.0 mm. They can be used in various ways.

## Specifications

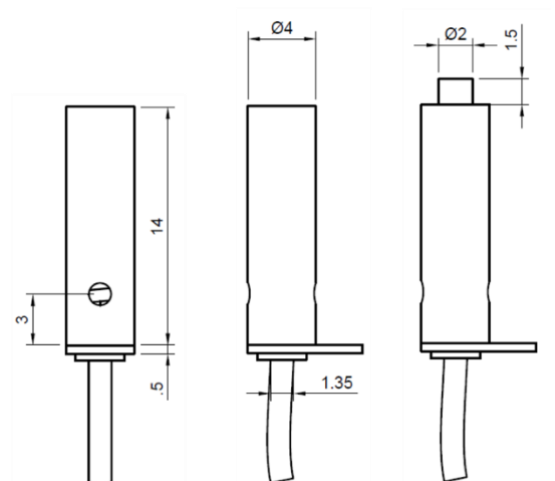
Parameter	LZ03	LZ04	LZ06
Outer diameter*	3.0 mm	4.0 mm	6.0 mm
Length	15.5 mm	14.5 mm	23.9 mm
Max. force	~ 9 N	~ 25 N	< 25 N
Max. stroke	~ 4 mm	< 1.5 mm	> 4 mm
Punch diameter	1.6 mm	2 mm	3.2 mm
Weight	0.6 g	1.6 g	3.2 g



## Drawings of LZ04



Graph 1: Force-stroke diagram for LZ04 plunger with different current.



### Further specifications for LZ04

Power consumption ~ 20 W at 5 A

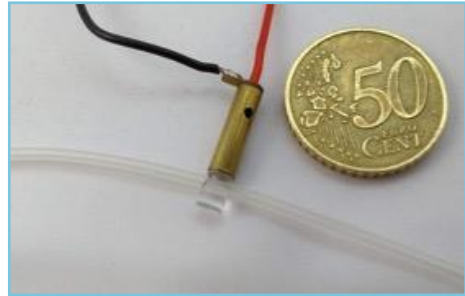
Speed Heating up: 0.6 s (with momentary 8 A current)

Cooling down: 1.5 s (supported by air cooling)

## Possible ways to integrate plungers



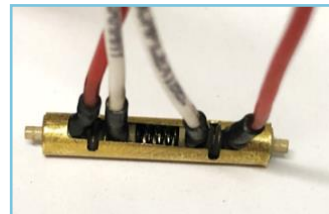
Seat valve with custom membrane material operated by plunger with 12 x 5 x 20 mm<sup>3</sup> size.



Ultracompact pinch valve with LZ04 for tubes with 2 mm diameter.



Bilinear actuator system with 6 mm tube diameter and a length of 27 mm.



Antagonistic plunger system with 4 mm outer diameter and a length of 25 mm.

- Plungers can be arranged as array in a row or as a matrix with high packing density.
- Installation space with less than 4 x 4 mm<sup>2</sup> per plunger.

For your specific plunger solution, please contact us by sending us an email to [contact@memetis.com](mailto:contact@memetis.com).

## Contact information

