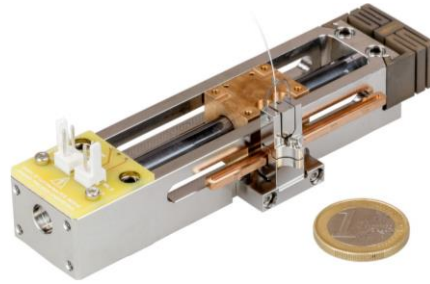


# CRYO LINEAR DRIVE (CLD)



## Features

- 51.5 mm coarse stroke
- Integrated scanner functionality
- Large driving force
- Compact and robust design
- 20 mK to 375K, vacuum compatible
- Materials: stainless, titanium, phosphor bronze
- Moving parts non-magnetic
- Ceramic guide shaft for long lifetime
- Feedback options "COE" and "RLS"

## Description / Applications

The Cryo Linear Drive (CLD) is a linear stage with an unrivaled 51.5 mm stroke in a compact and robust package. The combination of stepping and scanning functionality offers a solution for long stroke applications in cryogenic positioning. Optionally feedback can be fitted for closed loop control. Moving parts are made out of non-magnetic phosphor bronze to minimize interaction with external magnetic fields.

## Specifications

specs	unit	CLD1	CLD1-COE	CLD1-RLS
<b>SYSTEM SPECIFICATIONS</b>				
Active axes	-		1	
Type of motion	-		Linear	
Step/scan actuator *	-		Piezo ceramic	
Step range	mm		51.5	
Speed @ 293 K	mm/s		5	
Speed @ 4 K	mm/s		3	
Step size @ 293 K	µm		0.1 - 8	
Step size @ 4 K	µm		0.1 - 5	
Scan range @ 293K **	µm		10	
Scan range @ 4K **	µm		2	
Scanner sensitivity @ 293K	nm/V		66	
Scanner sensitivity @ 4 K	nm/V		13	
Driving force	N		5	
Load capacity	grams		200	
Mechanical endstops	-		at begin and end of range	
Operating temperature	K		0.02 - 375	
Main construction material	-		Stainless steel, titanium, phosphor bronze	
Mass	grams	190	340	205
Dissipation @ 293K	mJ/step		1,5	
Dissipation @ 4K	mJ/step		0,14	
Encoder resolution	µm	N/A	100	1
<b>DRIVE ELECTRONICS</b>				
Controller/driver	-		CAB-230(115), CADM2	
Encoder readout	-	N/A	OEM2	RSM
* Step/scan positioning is both done with the CADM2, not simultaneously				
** CADM2 -20 to +130V, 10 bits resolution, setpoint rate approx. 10Hz				

---

### Mechanical and electrical information

Download 3D-Step files, interface drawings and user manuals from:  
<https://www.jpe-innovations.com/cryo-nano-products/>

### Contact

For quotations, orders, customization or specials, please contact us at:  
<https://www.jpe-innovations.com/contact/>

---

### Ordering Information

CLD1 /HV

Cryo Linear Drive 1

CLD1-COE /HV

Cryo Linear Drive 1-Cryo Optical Encoder

CLD1-RLS /HV

Cryo Linear Drive 1-Resistive Linear Sensor