
SA-LPxxxD-000**Double Track Linear potentiometer**



Key Features

- Ultra-high reliability by using “double track” technology
- Superior quality
- Long operational life
- High accuracy
- Compact design
- Simple assembly by using Quick release ball joints.
- Suitably for rough environment
- to measure linear motions e.g. front fork, steering, or damper movement

Options:

- Connector and cable length can be modified on customer request
- Different joint options available on request (Rod-Ends, ...)

Technical specifications

Electrical characteristics

Mechanical stroke ±1 mm	mm	50	75	100	150	175
Retracted mounting distance	mm	150	175	205	260	285
Resistance	kΩ	1	1,5	2	3	3,5
Non-linearity	FS	0.25%	0.15%	0.15%	0.15%	0.15%
Supply voltage	V			5		
Maximum supply voltage	V	45	65	90	130	130

Mechanical characteristics

Type		Raychem				
Wire cross section		3x AWG24				
Length	mm	1000				
Connector		open wires				
Standard		Binder 719 5PM				
Option -001						
Resolution	mm	<0.01				
Maximum moving speed	m/s	10				
Operation life	cycles	>5x10 ⁸				
Weight incl. cable	g		55	65	85	90

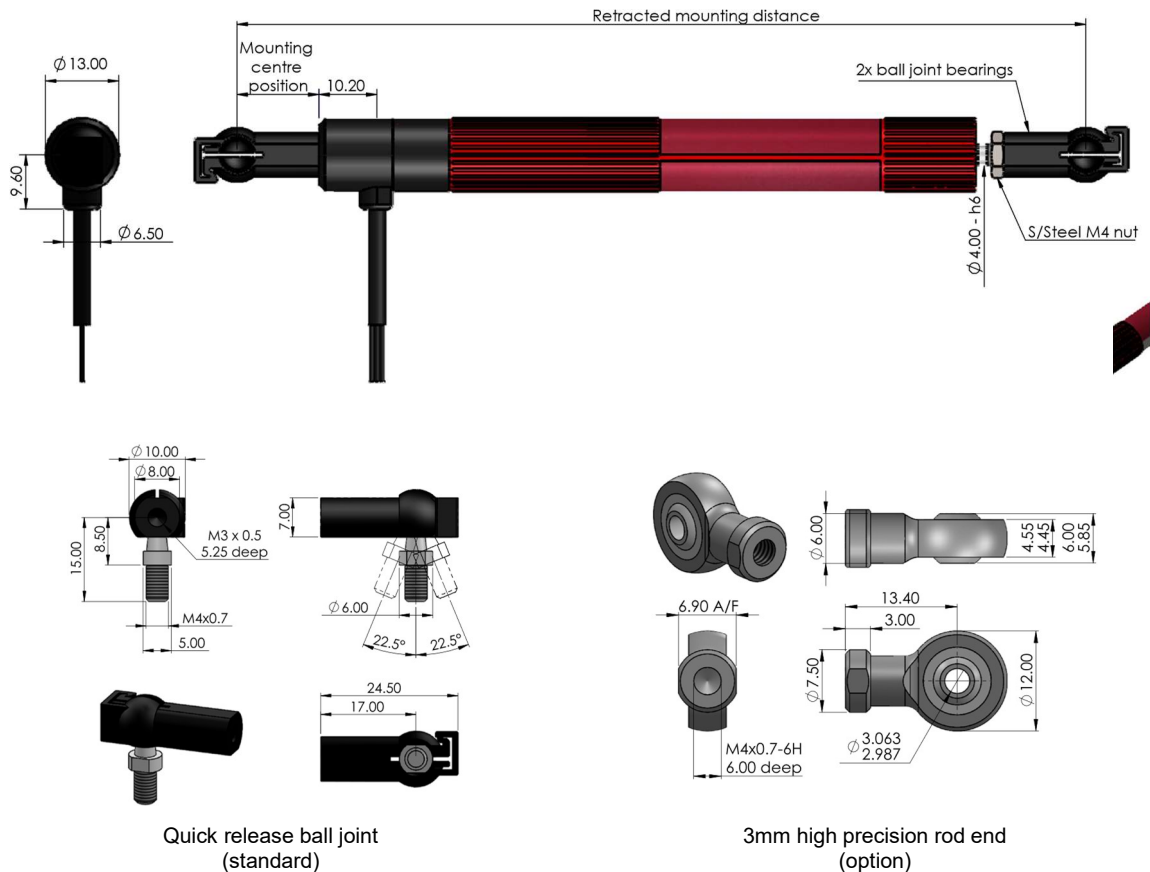
Environmental data

Operating temperature range	°C	-40 to +100
Shock	G	40
During a time period of	ms	10
Vibration tested at	G	12
With	Hz	1000
Sealing class (shaft)	IP	66

Ordering information

Open wire	SA-LP050D-000	SA-LP075D-000	SA-LP100D-000	SA-LP150D-000	SA-LP175D-000
Binder 719, 5PM	SA-LP050D-001	SA-LP075D-001	SA-LP100D-001	SA-LP150D-001	SA-LP175D-001

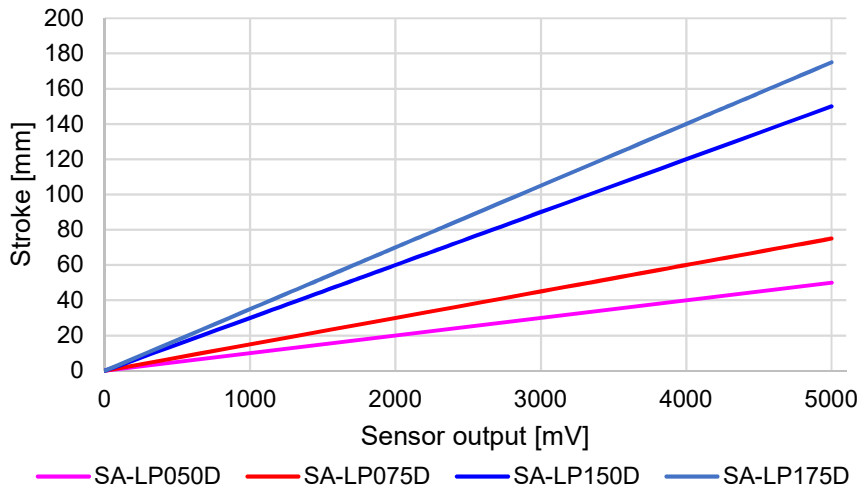
Dimensions



Calibration

	SA-LPxxxD-000		Multiplicator		Offset
12 Bit A/D	Stroke [mm]	=	xxx / 4095	* Digits	- 0
16 Bit A/D	Stroke [mm]	=	xxx / 65535	* Digits	- 0

SA-LPxxxD-xxx



Connector layout

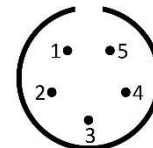
Connector type

open wire

Name	Description	Color
GND	Ground	black
+5V	Power supply	red
Signal	Analog signal	white

Analog line, Binder 719, 5PM (Option -001)

Pin	Name	Description	Color
1	AGND	Analog ground	black
2	+5V	Power supply	red
3	n.c.	Not connected	-
4	n.c.	Not connected	-
5	Signal	Analog signal	white



front view



Installation

- Do not force the potentiometer over its end positions.
- Mount the sensor with the shaft seal facing downwards to avoid water damage.