
SA-LPxxx-000**Linear potentiometer**



Key Features

- 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	100	125	250	350
Retracted mounting distance	mm	150	205	230	348	448
Resistance	k Ω	2	4	5	10	14
Non-linearity	FS	0.25%	0.15%	0.15%	0.15%	0.15%
Supply voltage	V	5				
Maximum supply voltage	V	45	90	110	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	45	65	75	114	126

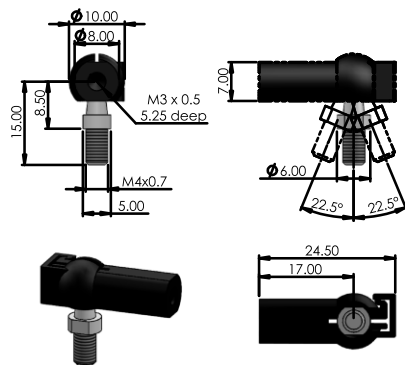
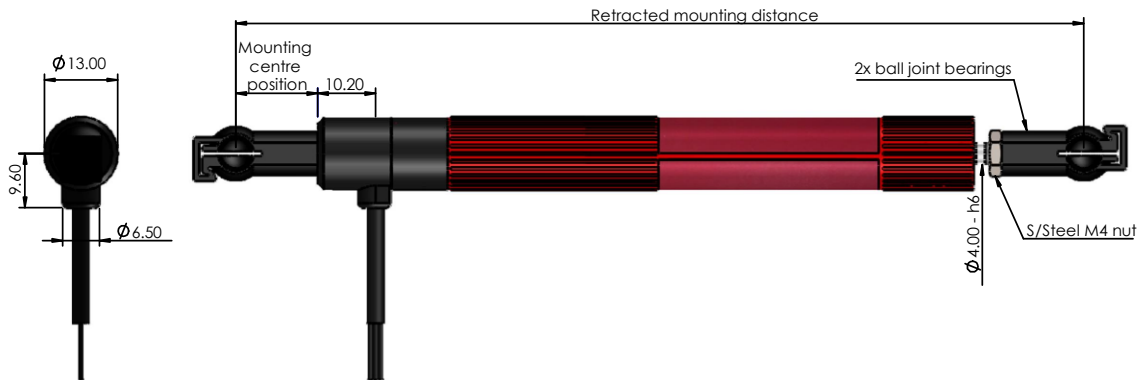
Environmental data

Operating temperature range	°C	-30 to +125				
Shock	G	40				
During a time period of	ms	10				
Vibration tested at	G	12				
With	Hz	1000				
Sealing class (shaft)	IP	66				

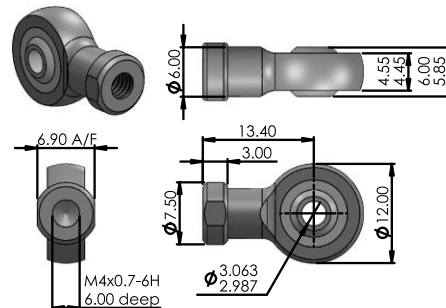
Ordering information

Open wire	SA-LP 050 -000	SA-LP 100 -000	SA-LP 125 -000	SA-LP 250 -000	SA-LP 350 -000
Binder 719, 5PM	SA-LP 050 -001	SA-LP 100 -001	SA-LP 125 -001	SA-LP 250 -001	SA-LP 250 -001

Dimensions



Quick release ball joint
(standard)



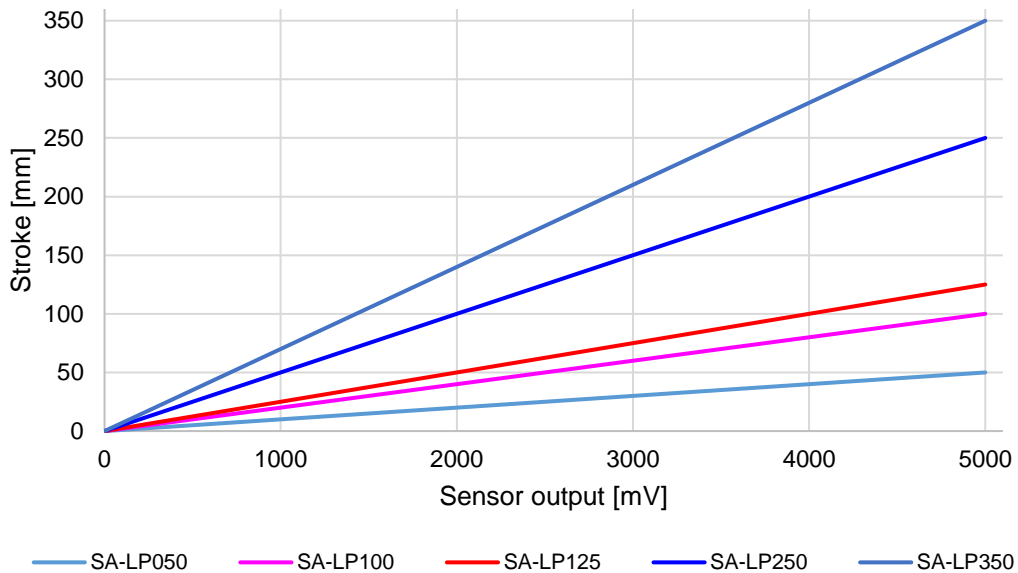
3mm high precision rod end
(option)

Calibration

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

SA-LPxxx-xxx



Connector layout

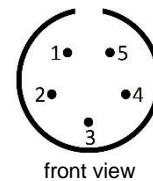
Connector type

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



Installation

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

