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**SA-LPxxxS-000****Slim linear potentiometer**

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**Key Features**

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- Super Compact Housing
- 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	<b>12</b>	<b>25</b>	<b>75</b>	<b>150</b>
Retracted mounting distance	mm	102.5	115	175	260
Resistance	kΩ	1.25	2.5	7.5	10
Non-linearity	FS	1%	1%	0.5%	0.5%
Supply voltage	V			5	
Maximum supply voltage	V			24	

### Mechanical characteristics

Type		Raychem			
Wire cross section		3x AWG24			
Length	mm	500			
Connector		open wire			
Standard		Binder 719 5PM			
Option -001					
Resolution	mm	<0,01			
Maximum moving speed	m/s	10			
Operation life	cycles	>25x10 <sup>6</sup>			
Weight incl. cable	g	24	26	33	46

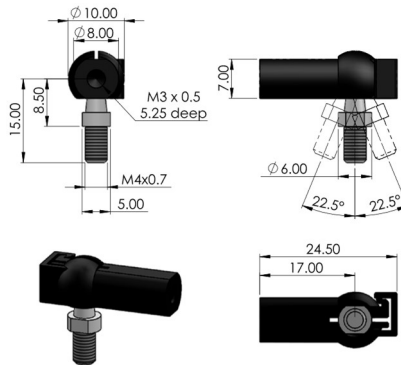
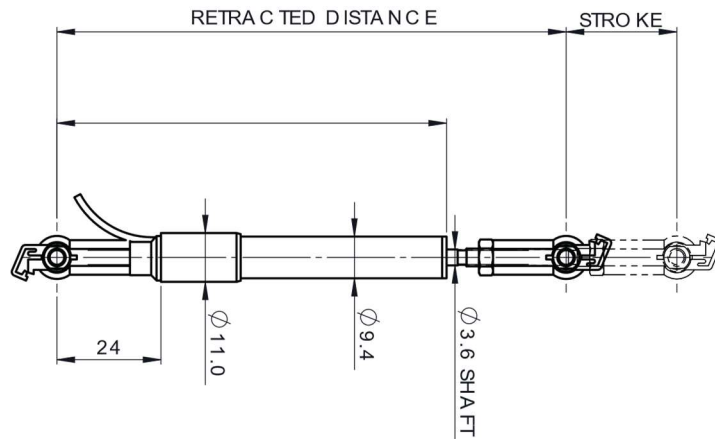
### Environmental data

Operating temperature range	°C	-40 to +140
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 <b>012</b> S-000	SA-LP <b>025</b> S-000	SA-LP <b>075</b> S-000	SA-LP <b>150</b> S-000
Binder 719, 5PM	SA-LP <b>012</b> S-001	SA-LP <b>025</b> S-001	SA-LP <b>075</b> S-001	SA-LP <b>150</b> S-001

## Dimensions

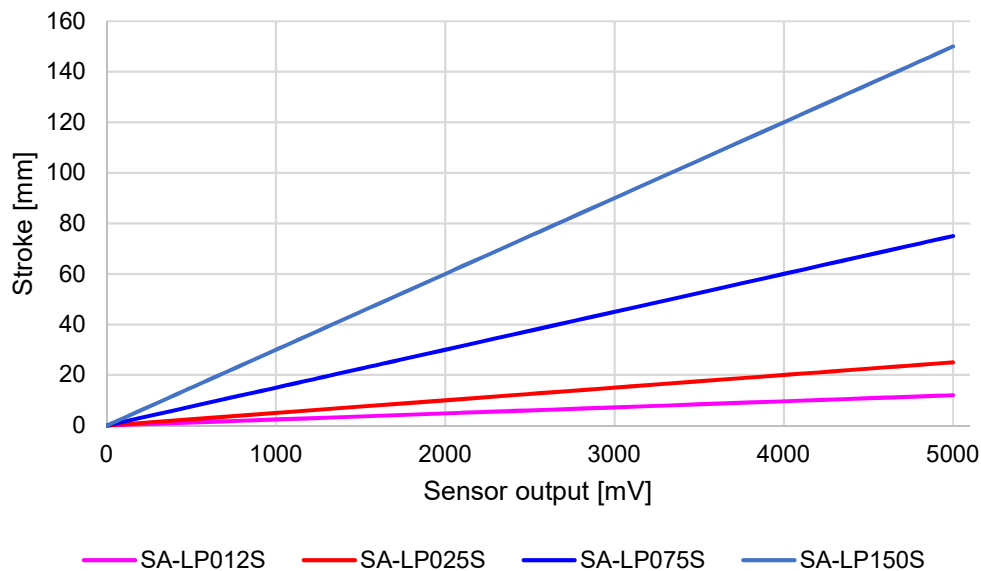


Quick release ball joint  
(standard)

## Calibration

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

### SA-LPxxxS-xxx



## Connector layout

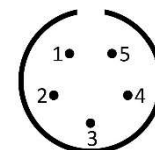
## Connector type

### 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.