

# Motorsports Linear Position Sensor - ELPM series



- Motorsport proven in a very compact and extremely ruggedised IP67 sealed aluminium housing
- Elastomer damped wipers for shock and vibration durability
- Self-aligning pivot bearing mountings with optional snap-on version for quick installation/removal
- Extended 'S' sealing option for enhanced reliability and longer life
- Wide choice of options



The motorsports proven ELPM series linear position sensor provides long life and extremely reliable performance for harsh environment position measurement applications such as ride height, suspension and steering angle measurement. The compact 9.5 mm diameter sensor includes a conductive plastic resistance element technology with multi damped wipers that maintains complete and even contact with very low electrical noise, even under the most arduous physical and environmental conditions. The IP67 sealing system employed in the design may be enhanced with the extended 'S' sealing option for improved reliability and endurance where unpredictable wet and hostile environmental conditions exist. The ELPM series offers stroke lengths from 25 to 175 mm in convenient increments with self aligning pivot bearing mountings or optional snap-on mountings with the ELPM-Pop option for fast installation or removal. Further options include a spring return version as well as customer specified mounting and electrical connector options on request.

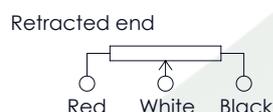
## Specifications and ordering information

<b>Electrical stroke</b>	25 to 175 mm (7 range options)	<b>Temperature range</b>	EPLM: -30°C to 150°C continuous (175°C short term) ELPM-Pop: -30°C to 140°C
<b>Mechanical stroke</b>	As electrical stroke	<b>Cable type /length</b>	24 AWG Raychem 55M wire, FDR25 sleeve / 500 mm (alternatives on request)
<b>Independent linearity</b>	Up to 50mm +/-1%, 75mm -150mm +/- 0.5% (see detailed information below)	<b>Mechanical life</b>	> 25 x 10 <sup>6</sup> operations
<b>Max. voltage</b>	24 V DC	<b>Sealing</b>	IP67 (optional 'S' version for extended IP67 performance)
<b>Recommended wiper current</b>	< 10µA	<b>Operational speed</b>	10 m/sec max.
<b>Power rating</b>	0.25W at 40°C		

	Unit	ELPM and ELPMS extended sealing option							ELPM-Pop and ELPMS-Pop extended sealing option						
		25	50	75	100	125	150	175	25	50	75	100	125	150	175
Order code <sup>1</sup>		25	50	75	100	125	150	175	25	50	75	100	125	150	175
Electrical stroke <sup>3</sup>	mm	25	50	75	100	125	150	175	25	50	75	100	125	150	175
Retracted mounting distance <sup>2</sup>	mm	95	120	145	178	203	228	253	115	149	175	205	230	260	285
Body length	mm	75	100	125	153	178	203	228	88	113	138	173	198	228	253
Resistance +/- 20%	kΩ	2.5	5.0	7.5	10.0	10.0	10.0	10.0	2.5	5.0	7.5	10.0	10.0	10.0	10.0
Independent linearity	+/- %	1	1	0.5	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	0.5
Weight	gm	26	29	33	37	43	46	51	23	27	31	35	41	44	57

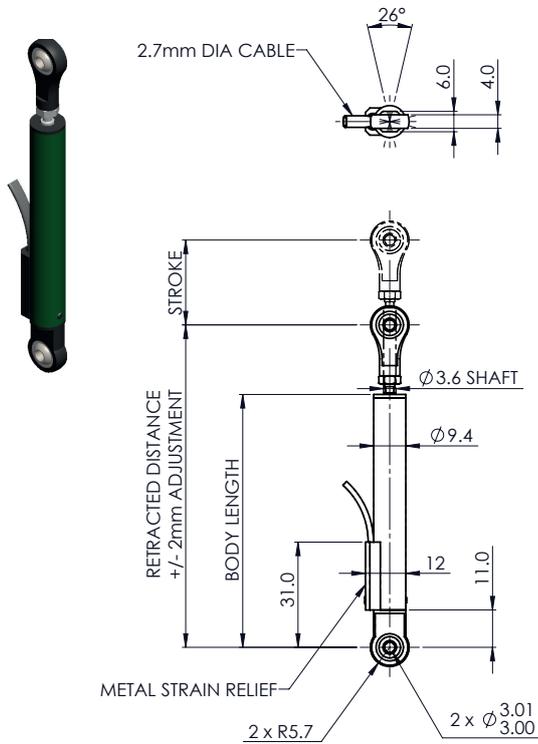
- Notes:
- 1 - For extended seal version specify '-S' (e.g. ELPMS-25 or ELPMS-Pop-25)
  - 2 - Alternative mounting distances available
  - 3 - Alternative electrical stroke lengths available
  - 4 - Spring loaded shaft and custom options available on request - please enquire at your Variohm Sales Office

## Wiring connections

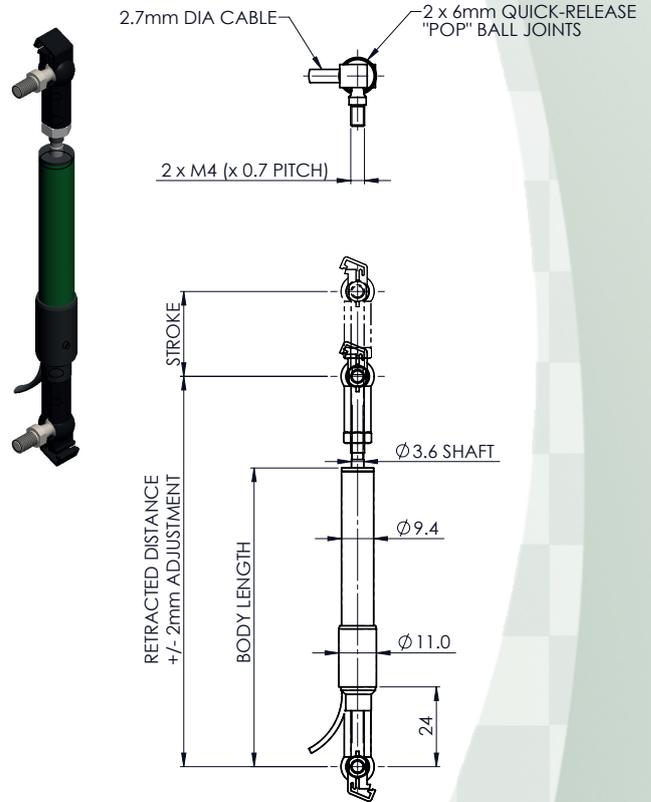


## Dimensions (mm)

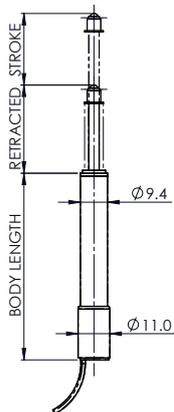
### ELPM and ELPMS extended sealing option



### ELPM-Pop and ELPMS-Pop extended sealing option



### ELPM-SO - Version with spring loaded shaft\*



\* Spring loaded shaft and custom options available on request - please enquire at your Variohm Sales Office