



Titan-Moto

Model: TMS-94 Series

Light Duty Linear Position Sensor



Description:

The Titan-Moto TMS-Series of linear position sensors are designed to withstand the harsh environments of performance racing, automotive and industrial applications.

By using proven 'Conductive Plastic Track' technology we offer a sensor with high performance and reliability at extreme temperature from -40 to 150°C and withstand sustained vibration and shock levels.

With its miniature lightweight construction, the TMS-Series is available in ranges from 12.5mm to 175mm.

A choice of either 'pop joints' or 'rod end bearings' makes the TMS-94 suitable for multiple applications, along with industry standard sizes making exchange in the field a simple process.

For applications that require some degree of customization we offer support and the service of a highly skilled design and manufacturing team at Stork Solutions.

Product Features:

- Industry Standard Size
- Miniature Rugged Construction
- Long Life
- Electrical Range 12.5mm to 175mm
- High Operating Temperature
- Lightweight

Applications:

- Throttle Position
- Suspension Position
- Pedal Movement
- Steering Rack
- Actuator Position



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Technical Specifications: TMS-94 Series Light Duty Linear Position Sensor

Sensor Technology	Conductive plastic
Measurement Range	12.5mm to 175mm
Supply	Typical 5V DC. 40V DC maximum
Resolution	Essentially infinite
Output	Resistive potentiometer. Use as a voltage divider
Recommended Wiper Current	<10µA
Independent Linearity	≤0.5% of full scale
Repeatability	≤0.01mm
Operation Velocity	10m/sec maximum
Electrical & Mechanical Life	>25 million operations
Housing Material	Anodized aluminium
Shaft Material	Stainless steel
Protection Class	IP54, IP65, IP67
Operating Temperature	-40°C to 150°C
Electrical Connection	50cm, 26AWG 55spec cable + FDR 25 sleeve
Weight	See table

Electrical Connections:

	+Ve Supply	0V Supply	Signal
Single Output	Red	Black	Yellow
The output signal may be reversed by swapping the supply connections Red & Black. DO NOT connect +Ve Supply to the Yellow connection, as this will damage the sensor element			



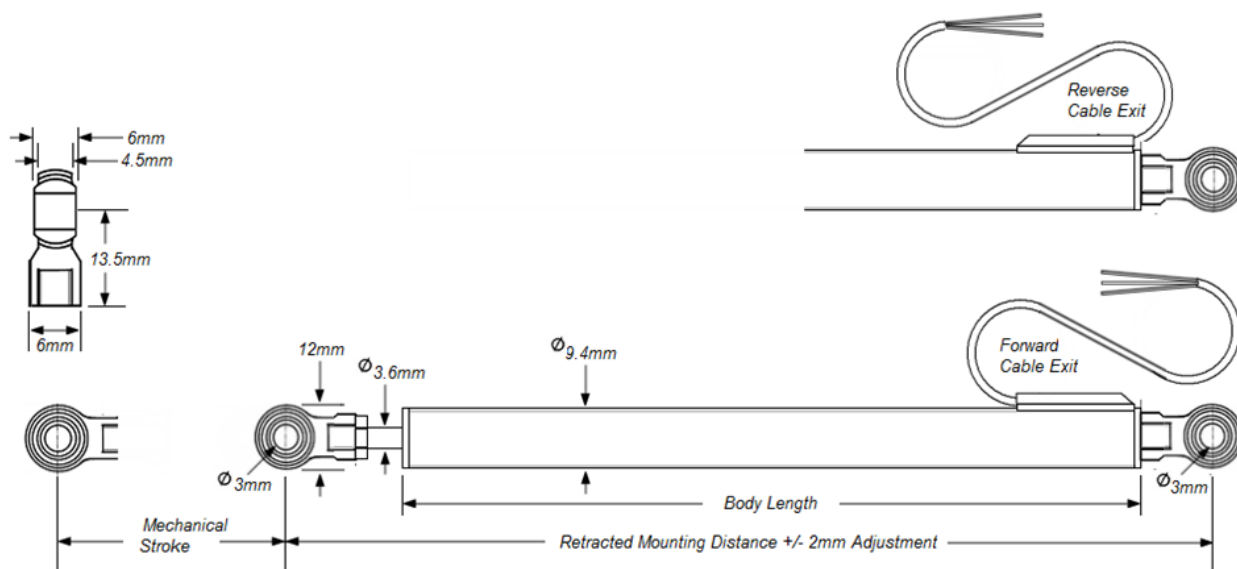
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Part Numbering Codes: TMS-94 Series Light Duty Linear Position Sensor

TMS-94	S	-012	-67	-F	-000
End Mounting Type	↑				
M. Rod End Bearings	M				
P. Pop Joints	P				
Measurement Range	↑				
12.5mm		012			
25mm		025			
50mm		050			
75mm		075			
100mm		100			
125mm		125			
150mm		150			
175mm		175			
Protection Class	↑				
IP54. Felt seal on shaft			54		
IP65. 2x viton O rings on shaft			65		
IP67. PTFE U ring & viton O ring			67		
Cable Exit Direction	↑				
F. Forward facing cable towards the body			F		
R. Reverse facing cable towards the end mounting			R		
Custom Options	↑				
No options					000
SLV. Carbon fibre/PEEK protection sleeve over the shaft. 12mm diameter					SLV
LXXXX. Cable length in mm (L1000 = 1000mm)					L1000
Consult factory for:					
Special measurement range					
Mounting clamps					



Dimension Details: TMS-94M Series Light Duty Linear Position Sensor

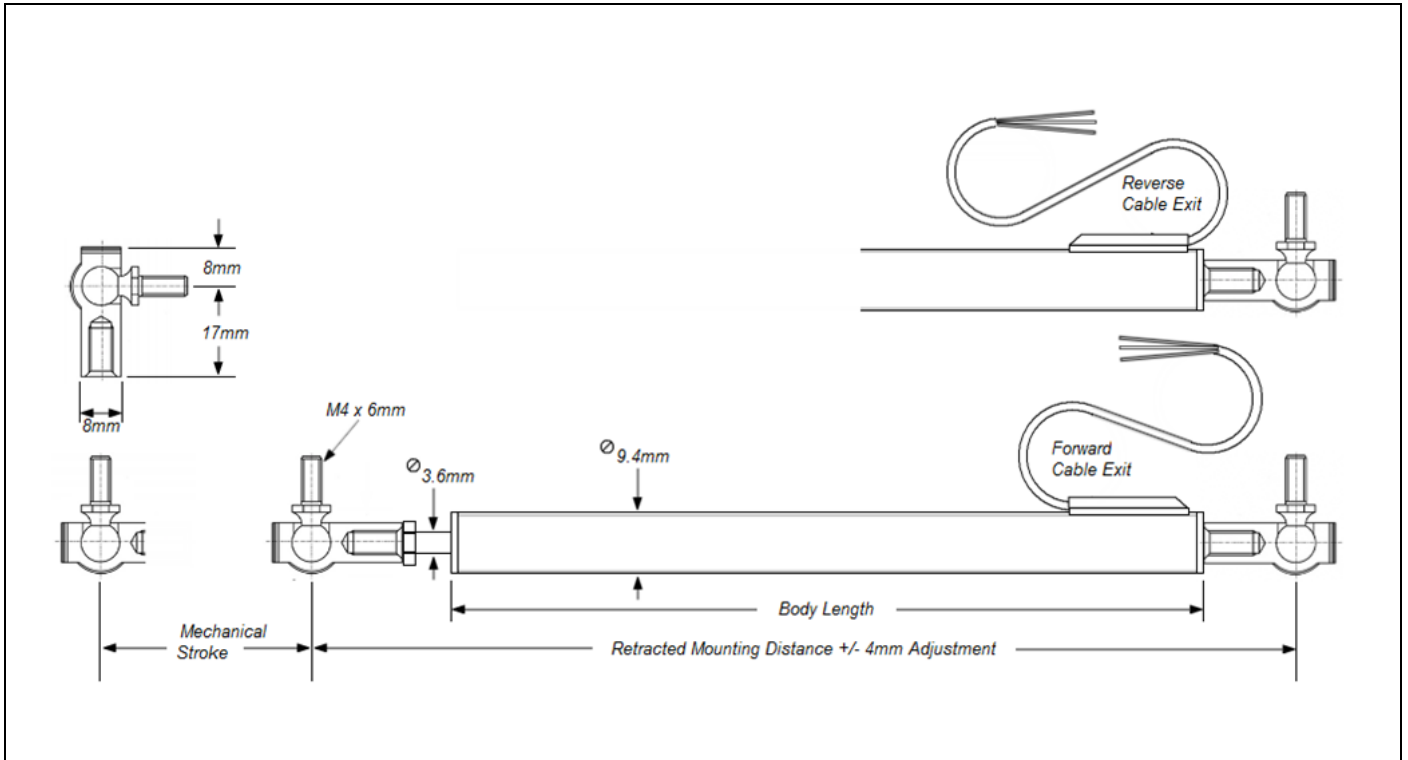


Dimensions for TMS-94M

Electrical Stroke (mm)	12.5	25	50	75	100	125	150	175
Retracted Mounting Distance (mm)	86	98	123	148	179	204	229	254
Min. Mechanical Stroke (mm)	14.5	27	52	77	102	127	152	177
Body Length (mm)	53	66	91	116	147	172	197	222
Approx Weight Without Cable (g)	15	17	21	25	29	33	37	41
Resistance $\pm 20\%$ (K Ω)	0.8	1.7	3.4	5	6.7	8.4	10	11.7
Mechanical Fixing	Rod End Bearings. Internal Diameter 3mm							



Dimension Details: TMS-94P Series Light Duty Linear Position Sensor



Dimensions for TMS-94P

Electrical Stroke (mm)	12.5	25	50	75	100	125	150	175
Retracted Mounting Distance (mm)	98	110	135	160	191	216	241	266
Min. Mechanical Stroke (mm)	14.5	27	52	77	102	127	152	177
Body Length (mm)	53	66	91	116	147	172	197	222
Approx Weight Without Cable (g)	19	21	25	29	33	37	41	45
Resistance $\pm 20\%$ (K Ω)	0.8	1.7	3.4	5	6.7	8.4	10	11.7
Mechanical Fixing	Pop Joints. M4 x 6mm							