



STORK SOLUTIONS



Titan-Moto

Model: TMS-13 Series

Medium 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 25mm to 250mm.

A choice of either 'pop joints' or 'rod end bearings' makes the TMS-13 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 25mm to 250mm
- High Operating Temperature
- Lightweight

Applications:

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



Technical Specifications: TMS-13 Series Medium Duty Linear Position Sensor

Sensor Technology	Conductive plastic
Measurement Range	25mm to 250mm
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 1	+Ve Supply	0V Supply	Signal 2
Single Output	Red	Black	Yellow	-	-	-
Dual Output	Red	Black	Yellow	Brown	Blue	White
The output signal may be reversed by swapping the supply connections Red & Black / Brown & Blue. DO NOT connect +Ve Supply to the Yellow / White connection, as this will damage the sensor element						



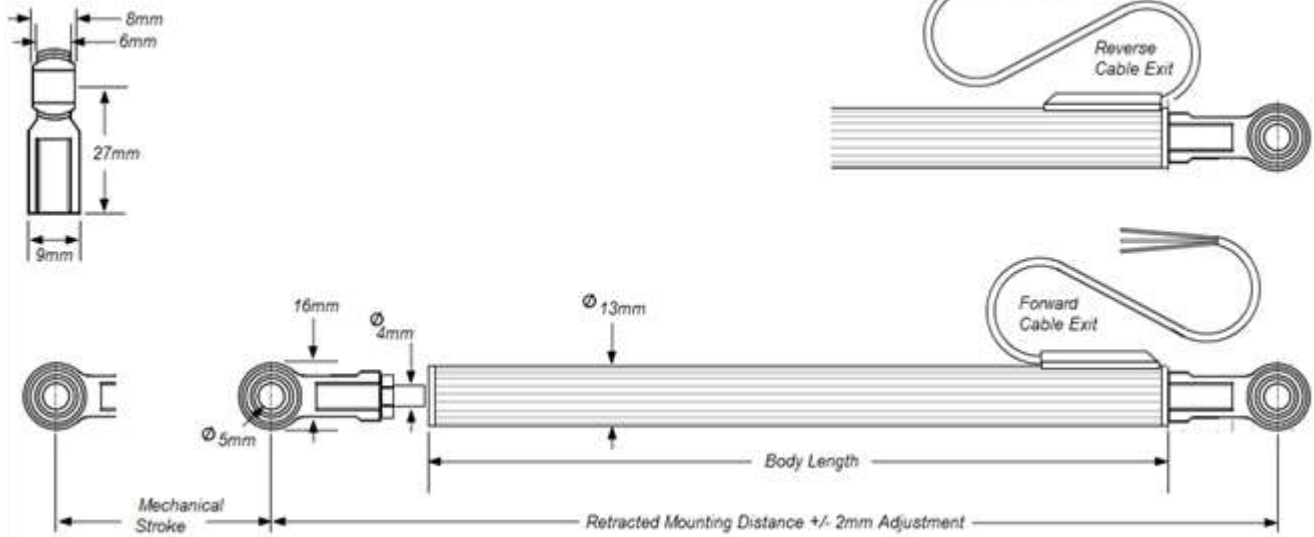
STORK SOLUTIONS

Part Numbering Codes: TMS-13 Series Medium Duty Linear Position Sensor

TMS-13		M	-050	-67	-F	-000
End Mounting Type		↑				
M. Rod End Bearings		M				
P. Pop Joints		P				
CM. Compact Rod End Bearings		CM				
CP. Compact Pop Joints		CP				
Measurement Range		↑				
25mm			025			
50mm			050			
75mm			075			
100mm			100			
125mm			125			
150mm			150			
175mm (13M & 13P only)			175			
200mm(13M & 13P only)			200			
225mm(13M & 13P only)			225			
250mm(13M & 13P only)			250			
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. 16mm diameter						SLV
Dual Output, 6 wire						DUAL
LXXXX. Cable length in mm (L1000 = 1000mm)						L1000
Consult factory for:						
Special measurement range						
Mounting clamps						



Dimension Details: TMS-13M Series Medium Duty Linear Position Sensor

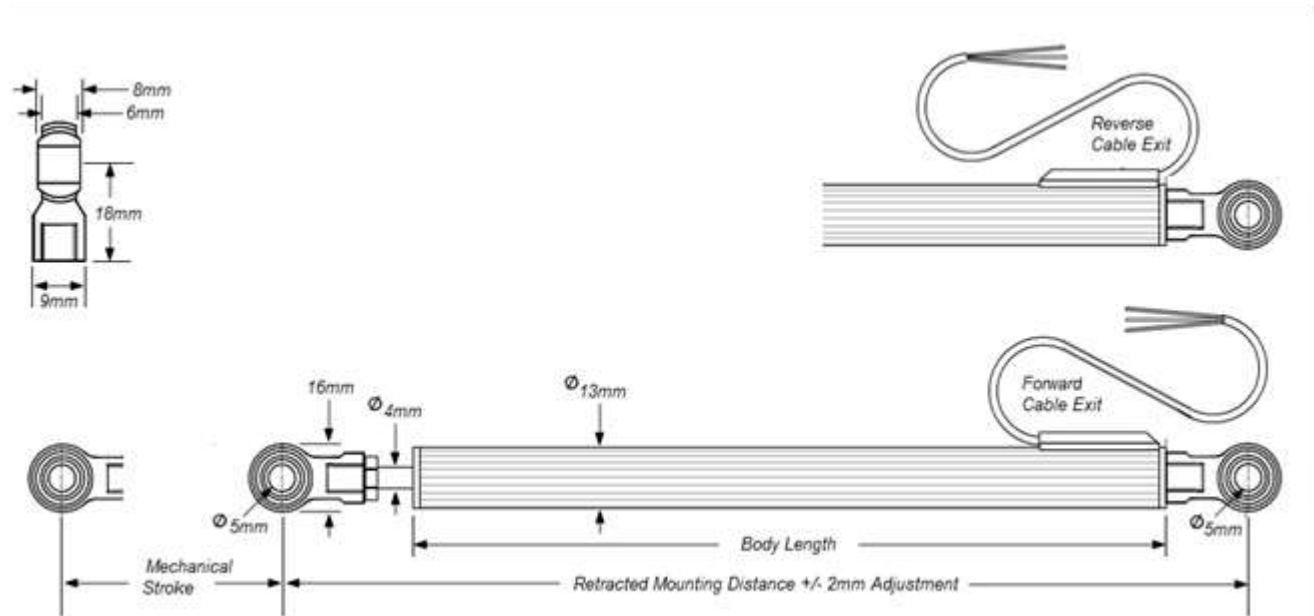


Dimensions for TMS-13M

Electrical Stroke (mm)	25	50	75	100	125	150	175	200	225	250
Retracted Mounting Distance (mm)	173	198	223	248	273	298	323	348	373	398
Min. Mechanical Stroke (mm)	27	52	77	102	127	152	177	202	227	252
Body Length (mm)	107	132	157	182	207	232	257	282	307	332
Approx Weight Without Cable (g)	53	58	63	68	73	78	83	88	93	98
Resistance $\pm 20\%$ (K Ω)	1.7	3.4	5	6.7	8.4	10	11.7	13.4	15	16.7
Mechanical Fixing	Rod End Bearings. Internal Diameter 5mm									



Dimension Details: TMS-13CM Series Compact Medium Duty Linear Position Sensor

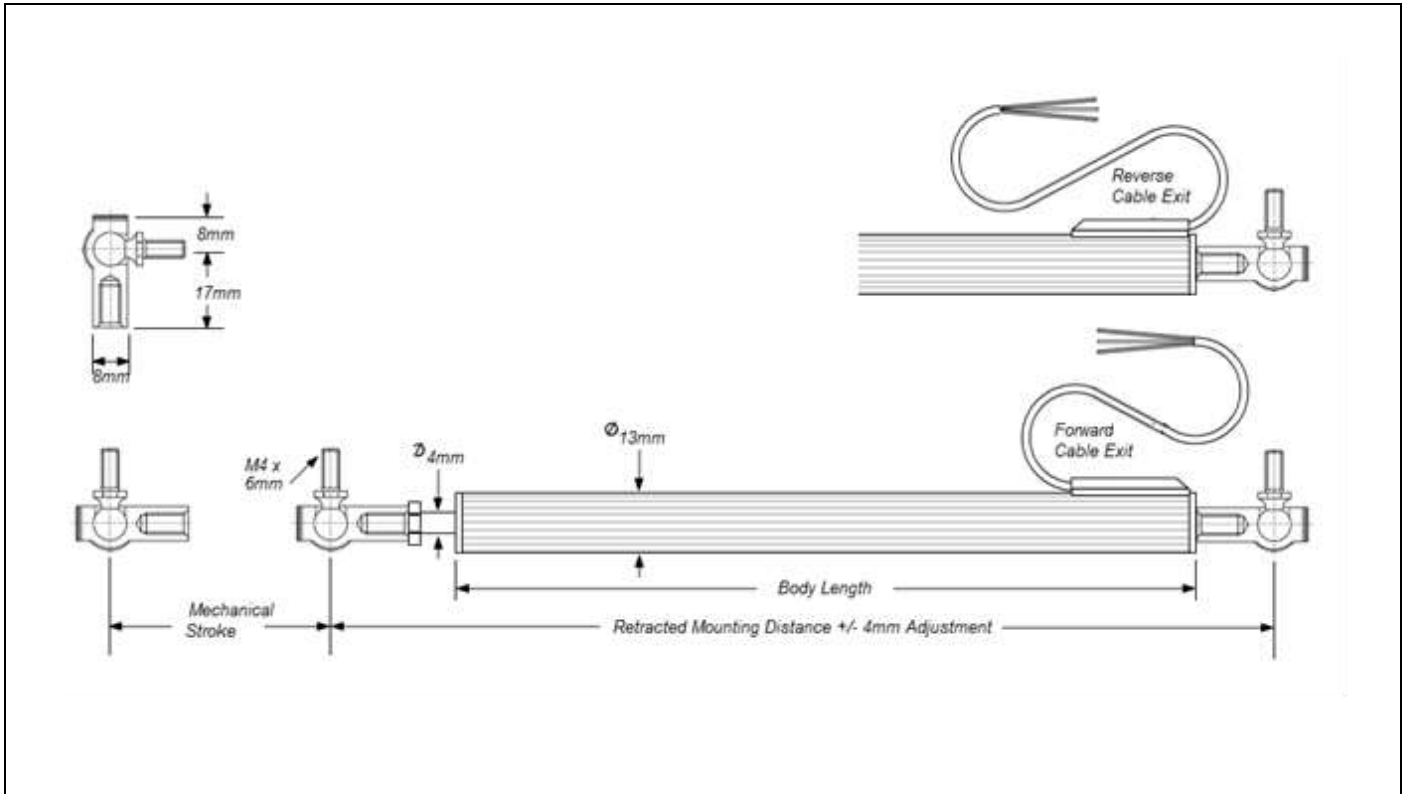


Dimensions for TMS-13CM

Electrical Stroke (mm)	25	50	75	100	125	150
Retracted Mounting Distance (mm)	142	167	192	217	242	267
Min. Mechanical Stroke (mm)	27	52	77	102	127	152
Body Length (mm)	97	122	147	172	197	222
Approx Weight Without Cable (g)	43	48	53	58	63	68
Resistance $\pm 20\%$ (K Ω)	1.7	3.4	5	6.7	8.4	10
Mechanical Fixing	Rod End Bearings. Internal Diameter 5mm					



Dimension Details: TMS-13P Series Medium Duty Linear Position Sensor

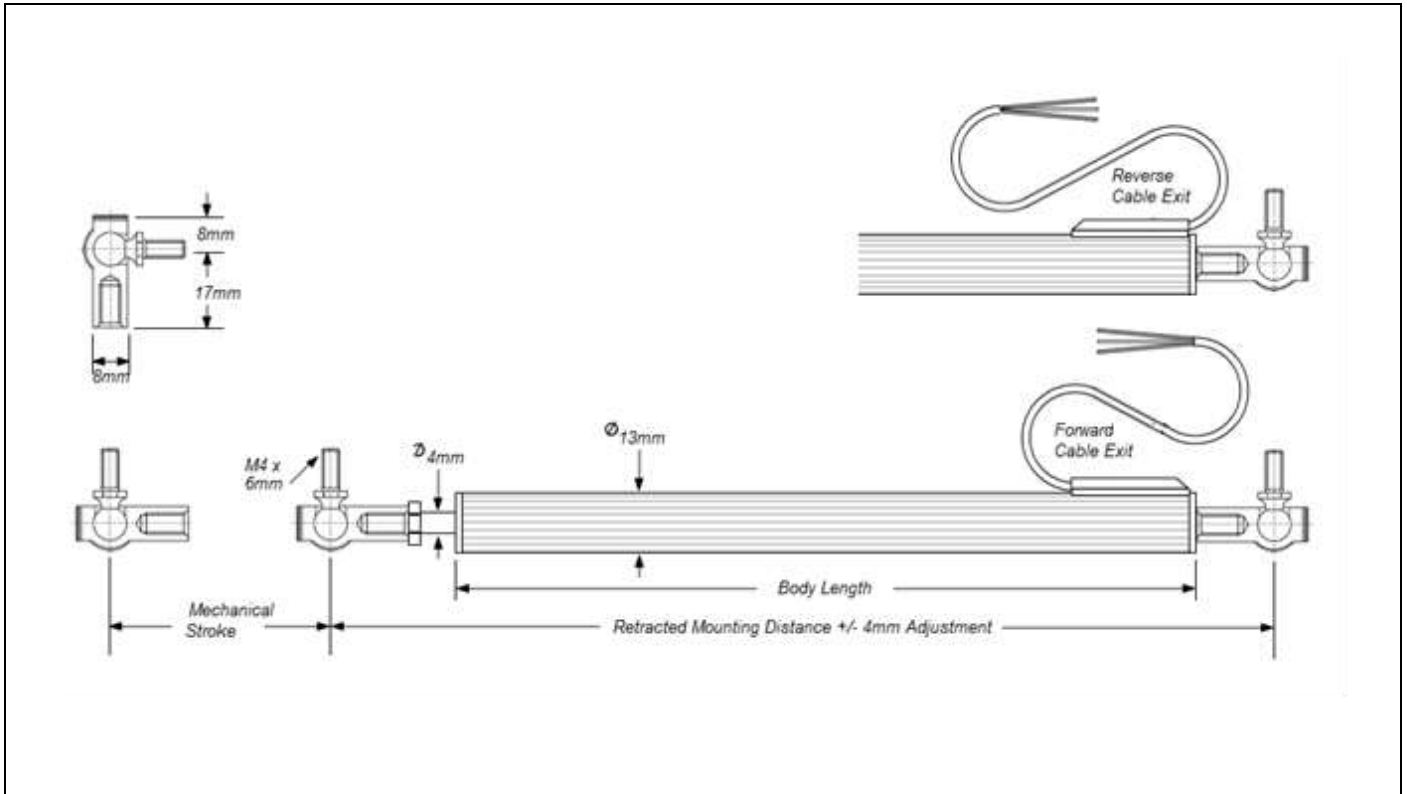


Dimensions for TMS-13P

Electrical Stroke (mm)	25	50	75	100	125	150	175	200	225	250
Retracted Mounting Distance (mm)	173	198	223	248	273	298	323	348	373	398
Min. Mechanical Stroke (mm)	27	52	77	102	127	152	177	202	227	252
Body Length (mm)	107	132	157	182	207	232	257	282	307	332
Approx Weight Without Cable (g)	53	58	63	68	73	78	83	88	93	98
Resistance $\pm 20\%$ (K Ω)	1.7	3.4	5	6.7	8.4	10	11.7	13.4	15	16.7
Mechanical Fixing	Pop Joints. M4 x 6mm									



Dimension Details: TMS-13CP Series Compact Medium Duty Linear Position Sensor



Dimensions for TMS-13CP

Electrical Stroke (mm)	25	50	75	100	125	150
Retracted Mounting Distance (mm)	140	165	190	215	240	265
Min. Mechanical Stroke (mm)	27	52	77	102	127	152
Body Length (mm)	97	122	147	172	197	222
Approx Weight Without Cable (g)	40	45	50	55	60	65
Resistance $\pm 20\%$ (K Ω)	1.7	3.4	5	6.7	8.4	10
Mechanical Fixing	Pop Joints. M4 x 6mm					