



STORK SOLUTIONS

Titan-Moto

Model: TMS-19 Series

Heavy 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 450mm.

A use of heavy duty 'rod end bearings' makes the TMS-19 suitable for extreme applications, such as off-road vehicle or heavy machine controls. Also by adding an optional protection sleeve, the stainless steel shaft is protected against damage from rocks or debris.

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 450mm
- High Operating Temperature
- Lightweight

Applications:

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



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Technical Specifications: TMS-19 Series Heavy Duty Linear Position Sensor

Sensor Technology	Conductive plastic
Measurement Range	25mm to 450mm
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						



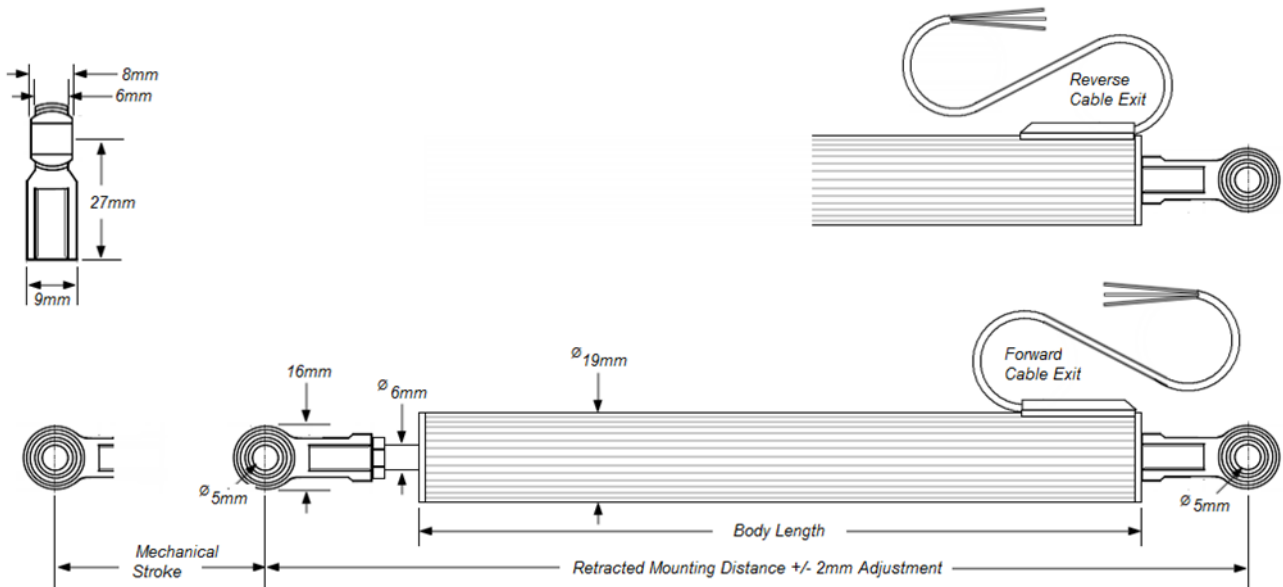
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Part Numbering Codes: TMS-19 Series Heavy Duty Linear Position Sensor

TMS-19	M	-050	-67	-F	-000
End Mounting Type	↑				
M. Rod End Bearings	M				
Measurement Range	↑				
25mm		025			
50mm		050			
75mm		075			
100mm		100			
150mm		150			
200mm		200			
250mm		250			
300mm		300			
350mm		350			
400mm		400			
450mm		450			
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. 25mm diameter					SLV
Dual Output, 6 wire					DUAL
LXXXX. Cable length in mm (L1000 = 1000mm)					L1000
Consult factory for: Special measurement range Mounting clamps 4-20mA, 0-5V, 0-10V amplified outputs					



Dimension Details: TMS-19 Series Heavy Duty Linear Position Sensor



Dimensions for TMS-19

Electrical Stroke (mm)	25	50	75	100	150	200	250	300	350	400	450
Retracted Mounting Distance (mm)	173	198	223	248	298	348	398	448	518	568	618
Min. Mechanical Stroke (mm)	27	52	77	102	152	202	252	302	352	402	452
Body Length (mm)	107	132	157	182	232	282	332	382	452	502	552
Approx Weight Without Cable (g)	123	127	131	135	143	151	159	167	223	278	333
Resistance $\pm 20\%$ (K Ω)	1.7	3.4	5	6.7	10	13.4	16.7	20	23.4	26.7	30
Mechanical Fixing	Rod End Bearings. Internal Diameter 5mm										