DSPM Industria
sensori & trasduttori

PZ12A Linear Potentiometer
Self-aligning by spherical joint version

Principal Characteristics

- **Compact design body d=12,9 mm**
- **Anodized aluminium housing**
- **IP65 protection**
- **100°C operating Temperature**

Applications

- **Motorsport damper**
- **Steering system**
- **Sway bar**
- **Brake balance**

PZ12A Linear position sensors are designed to offer compact size, long life, high degree of protection and easy installation by means of spherical joints. Body built out of anodized aluminium and Nylon PA66 caps and shaft made of AISI303 steel, offer great robustness and light weight. Independent linearity is up to 0,05% thanks to advanced hybrid resistance element calibrated by trimming technology. Multiple contact wiper reduces required pressure offering a long life operation, and reduces wear out process. IP65 degree of protection is obtained with proper sealing caps, enabling application with moderate harsh conditions. Operating temperature up to 100°C complete performance characteristics. PZ12A is largely used on motorsport application, measuring damper/suspension stroke, steering systems, brake balance, gear electrical actuator and others important variable. Beside motorsport this series of linear position sensors is used on structural monitoring.

Technical Data

Electrical stroke : 10 / 25 / 50 / 75 / 100 / 125 / 150 mm

Linearity: up to 0,05% (see table)

Resolution: Infinite

Resistance : 1 to 5 kOhm (see table)

Tolerance on Resistance < ± 20%

Recommended cursor current : <0,1µA
Max 10mA

Max applicable voltage: 60 V (see table)

Electrical Insulation: >100MΩ @ 500 V

Life:>25x10^6 cycle or 100x10^6 operations

Operating Temperature : -25 +100°C

Vibrations: 20g 5 Hz – 2 kHz

Shock: 50g, 11 ms

Protection: IP65

Operating Force: 0,5-5 N

Material : Body Al+PA66 , Shaft AISI303

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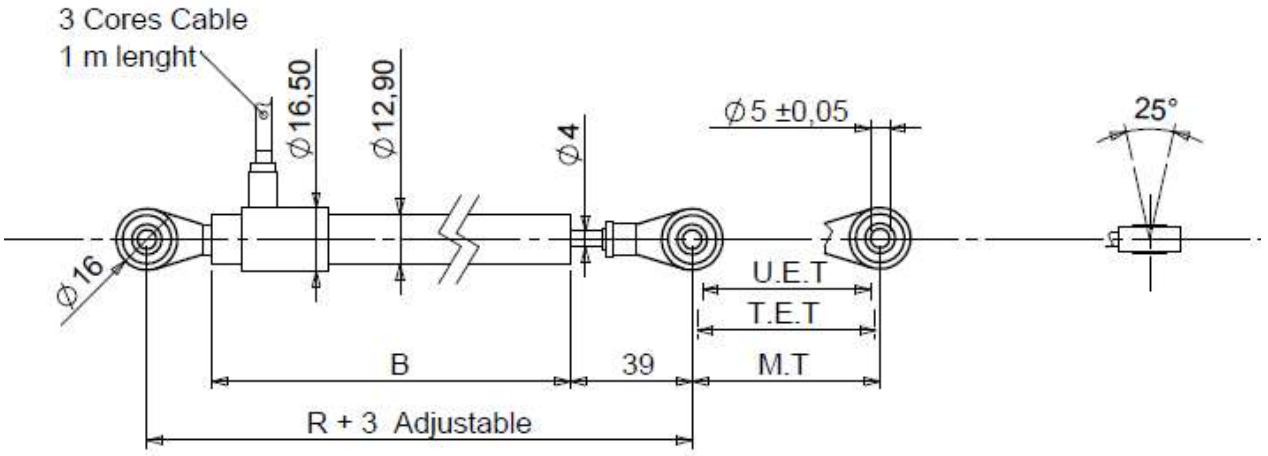
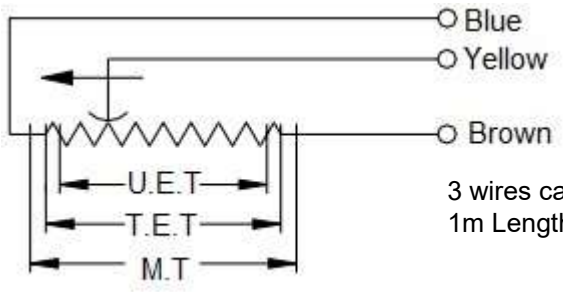


Mechanical Electrical Data

RANGE		**10**	**25**	**50**	**75**	**100**	**125**	**150**
U.E.T Useful Electrical Travel	mm	10	25	50	75	100	125	150
T.E.T Total Electrical Travel	mm	U.E.T + 1mm						
M.T Mechanical Travel	mm	U.E.T + 5mm						
Indipendent Linearity	±%	0,25	0,2	0,1	0,1	0,1	0,05	0,05
Resistance U.E.T ±20%	kΩ	1	1	2	3	4	5	5
Maximum Applicable Voltage	V	20	20	40	60			
Resolution		Infinite						
Temperature Range	°C	-25 +100						
Dimension **B**	mm	87	102	127	152	177	202	227
Dimension **R** (Retracted Distance)	mm	138	153	178	203	228	253	278
Mass	grams	55	70	80	90	100	110	120

Electrical Connection



3 wires cable
1m Length

Use the sensor as Voltage Divider using
regulated and stabilized Voltage supply
DO NOT USE as variable resistance

Order Code

Displacement Sensors **PZ12A** - XX

XX - desired Range U.E.T (mm)

Example:

PZ12A-75

Useful Electrical Travel 75 mm

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