



### DR40N10KB7G



Actual product appearance may vary.

**DuraStar Rodless Linear Position Transducer, 1016,0 mm [40.0 in]  
Electrical Travel, Hirschmann GDM Termination, Item Number 9810412**

#### Features

Vibration damped element- No wiper bounce in high vibration environments  
Extended side bearing- Improved life under high misalignment  
Extruded wiper carrier guides - Smooth operation under large misalignment  
Rugged ribbed housing- For industrial environment  
Precious metal wipers - Insures high performance, low noise, no oxidation  
MystR<sup>®</sup> plastic elements - Tested up to one billion operations  
High DC level output Works with simple controllers  
High performance bearings - Long life even under side-load conditions  
Absolute continuous measurement- Accurate position at power -up

#### Potential Applications

Injection molding machines  
Printing presses  
Meat packing equipment  
Drill presses  
Woodworking machines  
Cranes  
Front-end loaders  
Scales

#### Description

The DuraStar rodless linear position transducer incorporates over fifty years of MystR<sup>®</sup> technology into the longest lasting factory-rugged potentiometer. It allows large misalignment of shaft and housing, while providing whisper-quiet operation and smooth, clean signal output. MystR<sup>®</sup> provides the DuraStar excellent durability, especially in dither operation which is so often the determining factor in a potentiometer's life. It is an excellent replacement unit to reduce maintenance operations.

The rodless side-sealed DuraStar can also be used to replace a rodded potentiometer in contaminated applications to improve performance while providing long life.

Intrinsically safe for Class I, II and III Division I, Groups A, B, C, D, E, F and G for hazardous (indoor/outdoor) NEMA 4 locations. V max.=30 V, I max.=100 mA, Ci=0, Li=0mH.

#### Supporting Documentation

Dimensions Circuitry

Product Specifications	
Supply Voltage	75 Vdc max.
Measurement Type	Linear
Housing Size	1164,0 mm [45.83 in]
Total Mechanical Travel	1021,0 mm [40.2 in]
Electrical Travel	1016,0 mm [40.0 in]
Starting Force (max.)	0,45 kg [1.0 lb]
Linearity	± 0.1 %
Backlash	0,025 mm [.001 in]
Shaft Material	Stainless Steel
Shaft Diameter	M5 x 0.8 Metric thread
Type of Element	MystR <sup>®</sup> conductive plastic film
Housing Style	Anodized Aluminum
Termination	DIN 43650
Wiper Current	<1 μ A
Resolution	Infinite
Operating Temperature Range	-65 °C to 105 °C [-85 °F to 221 °F]
Vibration	20 g / 0,75 mm (rms) 5 hz to 2 khz
Shock	50 g 11 ms half sine
Operating Life	one billion dither operations
Total Resistance	10,000 Ohms
Resistance Tolerance	± 20 %
Insulation Resistance	1000 MOhm @ 500 Vdc
Dielectric Strength	1000 V rms
Weight (Ranges)	0,363 kg to 2,22 kg [0.8 lb to 4.9 lb]
Sealing	NEMA 4
UNSPSC Code	41111945
UNSPSC Commodity	41111945 Linear position sensors
Availability	Global
Comments	Note; Mating Connector Included. Options; Electrical Travel, Total Resistance, Linearity
Series Name	DR

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