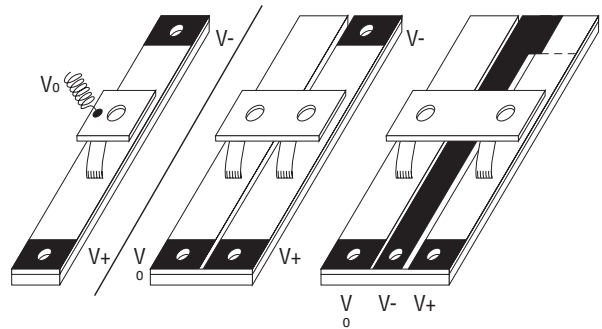


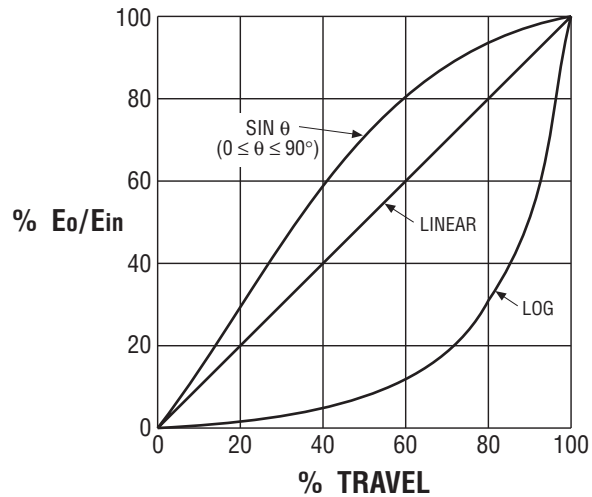
MYSTR® ELEMENTS

TECHNICAL SPECIFICATIONS

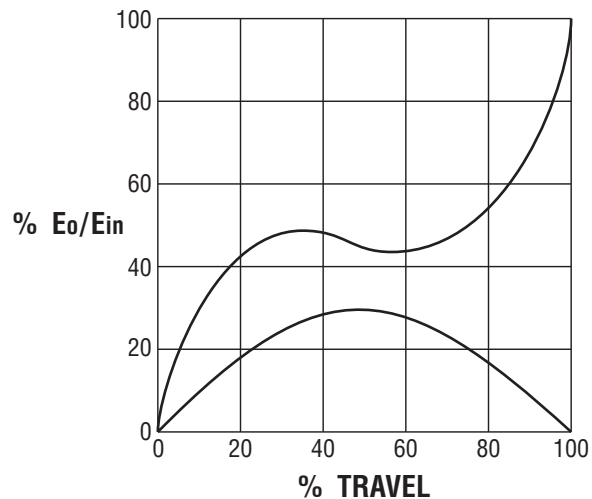
Noise	0.03% output smoothness
Resolution	Essentially infinite
Accuracy	Independent and absolute linearity to $\pm 0.025\%$
Resistance-Temperature Characteristic	Typically $\pm 5\%$ maximum change in total resistance over standard operating temperature ± 200 PPM/ $^{\circ}\text{C}$ available in some resistances
Operating Temperature	-55°C to 125°C standard. . . optional to 225°C in some designs
Power Ratings	1 watt/ cm^2
Resistance Tolerance	$\pm 20\%$ standard ($\pm 10\%$ optional)
Output Functions	Linear, log, audio, or custom non-linear
Environmental	Operates under wide variety of "hostile" environments
Function Lengths	Up to 160" for linear motion and to 359° for rotary units



Examples of monotonic functions



Examples of non-monotonic functions



MODEL M-22 • ROTARY POSITION TRANSDUCER

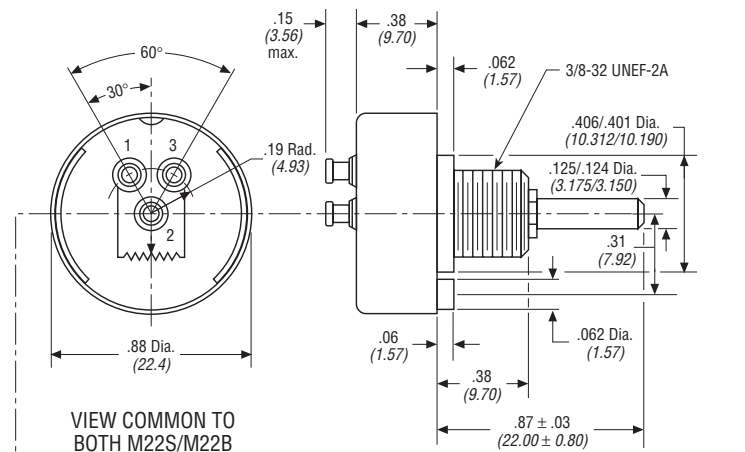
TECHNICAL SPECIFICATIONS

MODELS	M-22B	M-22S
MECHANICAL		
Case Diameter	7/8" (22mm)	
Total Mechanical Travel	330° ±5°	Continuous
Starting Torque (max)	1.0 oz. in.	0.3 oz. in.
Shaft Run Out (max)	NA	0.003 in.
Stop Strength	5 in. lb.	NA
Temperature Range	-40° to 85°C (-40° to 185°F)	
Life	50 million operations	
Bearings	Sleeve	
Total Weight	.43 oz. (12 g)	.35 oz. (9.8 g)
Terminals	Gold	
ELECTRICAL		
Theoretical Electrical Travel	320°	340°
Independent Linearity*	±1%	
Total Resistance	2 KΩ	
Resistance Tolerance	±20%	
Output Smoothness	0.10%	
Resistance Temperature Characteristic	±5%	
Resolution	Infinite	
Dielectric Strength	750 V rms	
Insulation Resistance	1000 MΩ @ 500 Vdc	
Power Rating	0.4 Watts	
Wiper Current (max)	<1μA	

OPTIONS**

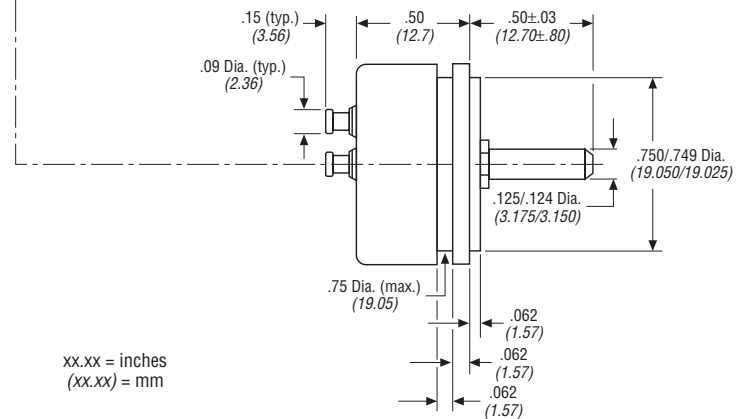
	M-22B	M-22S
Shaft	Flat, slot	
Shaft Diameter	1/4"	NA
Anti-rotational Pin	Available without	NA
Resistance Values	1K, 5K, 10K ohms	
Resistance Toleranc	±10%	
Independent Linear	±.5%	±.5%, .25%

DIMENSIONS



VIEW COMMON TO BOTH M22S/M22B

Hardware Kit Supplied
M22B POTENTIOMETER

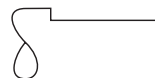


xx.xx = inches
(xx.xx) = mm

M22S POTENTIOMETER



Slot: 1/32" wide x 1/16" deep



Flat: 1/32" deep x 3/8" long

* 5 to 95% of Theoretical Electrical Travel

**Minimum quantities may be required

NOTE: Do not test using an Ohmmeter on an RX1 scale or other current devices.

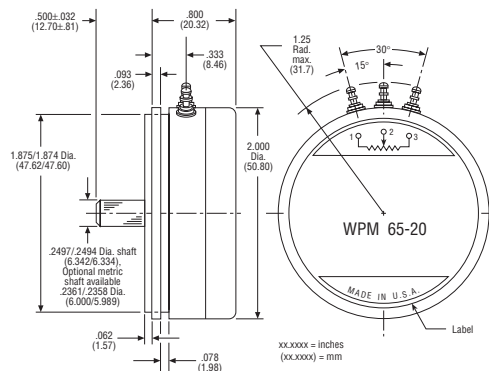
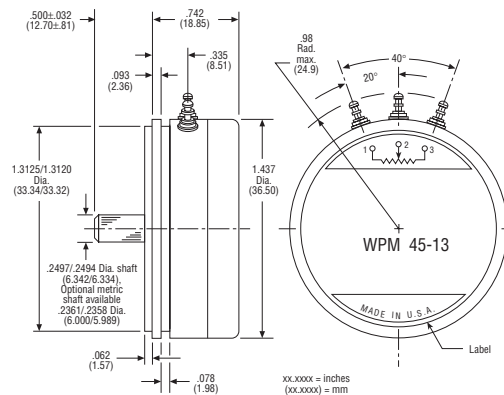
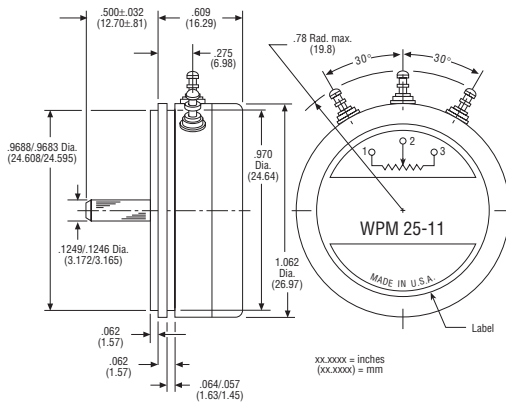
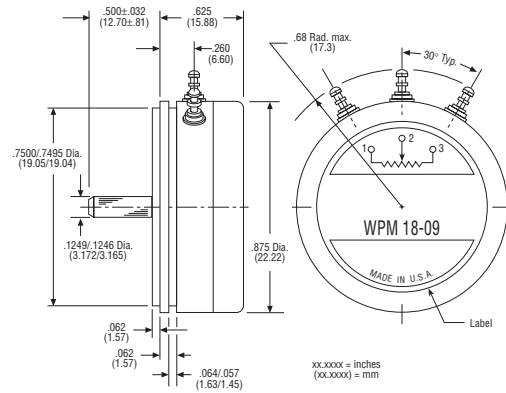
Excessive wiper current can cause output errors or damage.

Zero side load is recommended to achieve maximum performance.

TECHNICAL SPECIFICATIONS

MODEL	18-09	25-11	45-13	65-20
MECHANICAL				
Case Diameter	7/8" (22mm)	1 1/16" (27mm)	1 7/16" (36mm)	2" (51mm)
Total Mechanical Travel	Continuous degrees			
Starting Torque	0.4 oz. in.	0.4 oz. in.	0.8 oz. in.	1 oz. in.
Radial Play (max)	.001 in. (.025mm)			
Shaft Runout (max)	.001 in. (.025mm)			
End Play (max)	.005 in. (.127mm)			
Backlash	.01°			
Operating Speed (max)	10,000°/sec			
Temperature Range	-55° to 125°C (-67° to 257°F)			
Life	One billion dither operations			
Vibration	10 Hz to 2 KHz @ 20 g Per MIL-R-39023			
Shock	100g 6 ms			
Weight	0.5 oz. (14.7g)	0.6 oz. (18.13g)	1.8 oz. (51.01g)	2.5 oz. (70.85g)
ELECTRICAL				
Theoretical Electrical Travel	340°	345°	350°	353°
Independent Linearity*	±0.1%	±0.1%	±0.075%	±0.075%
Total Resistance	5 KΩ			
Resistance Tolerance	±20%			
Resistance Temperature Characteristic (max)	±5%			
Resolution	Infinite			
Dielectric Strength	750 V rms	750 V rms	1000 V rms	1000 V rms
Insulation Resistance	1000 MΩ @ 500 Vdc			
Power Rating	1.5 Watts	1.5 Watts	2.0 Watts	3.0 Watts
Output Smoothness	0.03%			
Wiper Current (max)	<1 μA			

DIMENSIONS



*5-95% of Theoretical Electrical Travel
 NOTE: Do not test using an Ohmmeter on Rx 1 scale or other current devices.
 Excessive wiper current can cause output errors or damage.
 Zero side load is recommended to achieve maximum performance.

APPLICATIONS

- IN-TANK LEVEL SENSING
- ROBOTIC MOTION CONTROL
- WOODWORKING GUIDES
- SEISMOLOGY
- PACKAGING AND PROCESSING EQUIPMENT
- ANIMATED CHARACTERS
- MARINE STEERING SYSTEMS
- OFF-ROAD VEHICLES
- SEMICONDUCTOR PROCESS EQUIPMENT
- MEDICAL EQUIPMENT

AQMLT • HARSH DUTY POSITION TRANSDUCER

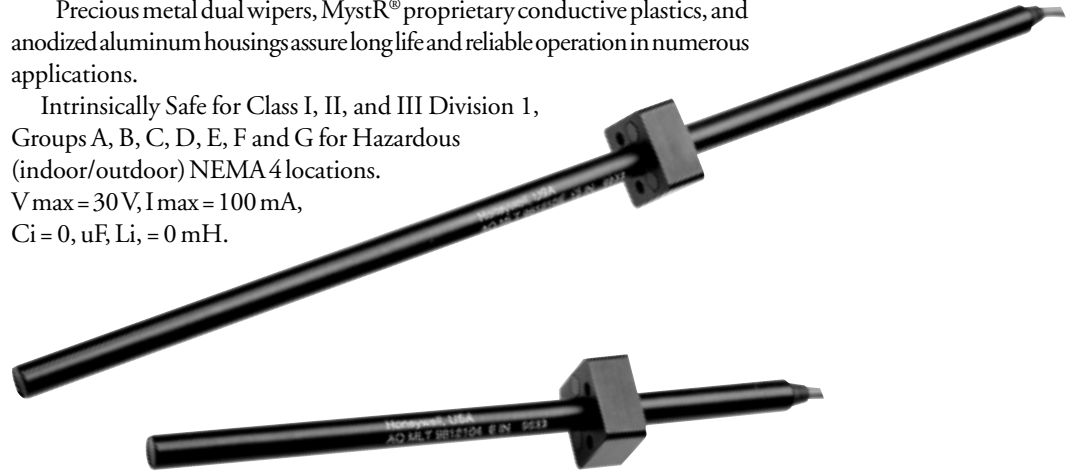
The AQMLT is a shaftless waterproof linear potentiometer designed to operate in wet/washdown and in-tank environments.

The AQ series features an external actuator magnetically coupled to a position feedback element. The magnetic actuator replaces the shaft found in traditional linear transducers and eliminates the need for additional stroke length mounting space.

Precious metal dual wipers, MystR® proprietary conductive plastics, and anodized aluminum housings assure long life and reliable operation in numerous applications.

Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G for Hazardous (indoor/outdoor) NEMA 4 locations.

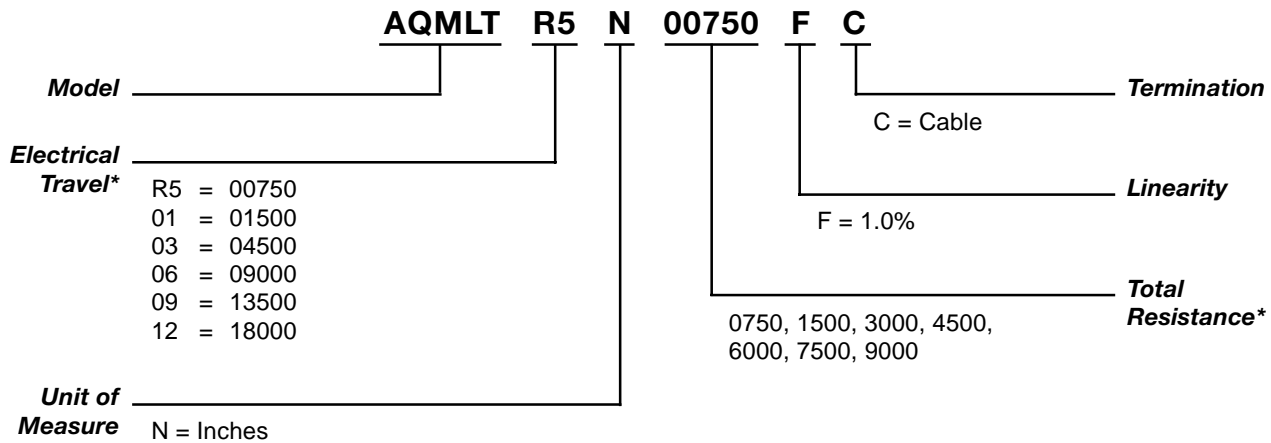
$V_{max} = 30V$, $I_{max} = 100mA$,
 $C_i = 0, \mu F$, $L_i = 0mH$.



FEATURES BENEFIT

- | | |
|--|--|
| <ul style="list-style-type: none"> • 3/8 inch diameter • Multiple finger wiper design • Extruded wiper block guides • MystR plastic element • Anodized extruded aluminum housing • Sealed construction - IP68 rated • Precious metal contact • Absolute continuous measurement | <ul style="list-style-type: none"> • Fits into tight spaces, clamps easily to cylinders • Improves shock and vibration performance • Smooth quiet motion; extends operating life • Tested up to one billion dither operations • Tolerates clamping loads • Full performance in hostile environments • Low noise level over entire life • Accurate position at power up |
|--|--|

HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

* Note: The *Electrical Travel* correlates to the *Total Resistance (Ohms)*.

TECHNICAL SPECIFICATIONS

MECHANICAL

Total Mechanical Travel	0.6 to 12.1 in (min) (15.2 TO 307.3 mm) (min)
Starting Forces	1.0 oz
Shock	50g 1 ms half sine
Vibration	20g rms 5Hz to 2kHz
Life	One Billion dither operations

ELECTRICAL

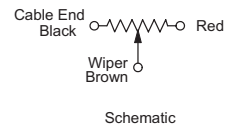
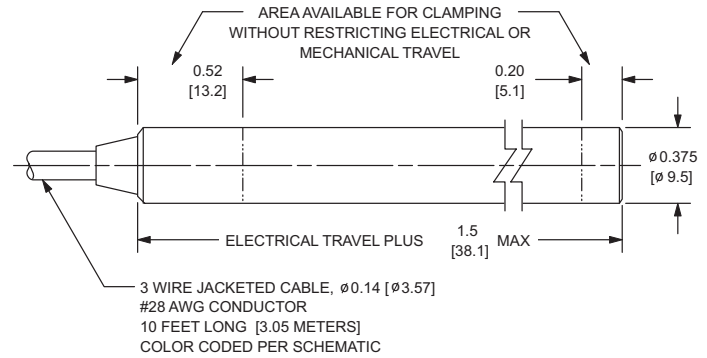
Theoretical Electrical Travel	0.5 to 12 in. (12.7 to 304.8 mm)
Independent Linearity*	± 1.0%
Total Resistance	1500 W per inch of electrical travel
Resistance Tolerance	± 20%
Operating Temperature	-40° to 80° C (-40° to 176° F)
Resolution	Infinite
Insulation Resistance	500m W @ 500Vdc
Dielectric Strength	250 V rms
Maximum Applied Voltage	30 Vdc
Recommended Wiper Current †	<1mA

* 5-95% of Theoretical Electrical Travel

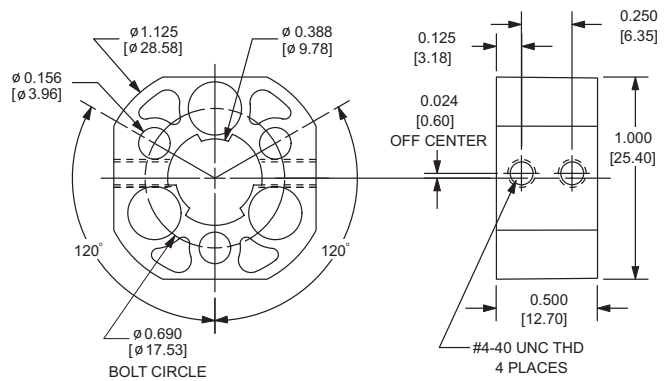
† Do not test using an Ohmmeter on Rx 1 scale or other current devices. Excessive wiper current can cause output errors or damage. Zero side load is recommended to achieve maximum life.

DIMENSIONS

xx.xx = inches
(xx.x) = mm



ACTUATOR



NOTE: MECHANICAL TRAVEL = ELECTRICAL TRAVEL + 0.10[2.5]

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Item # 1123800 M.G. 10/01

Honeywell

Sensing and Control
Honeywell
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Acton, MA 01720 USA



Tel: (877) 384-1300; Fax: (978) 263-0630

www.honeywell.com/sensing/products/di

APPLICATIONS

- INJECTION MOLDING MACHINES
- PRINTING PRESSES
- MEAT PACKING EQUIPMENT
- DRILL PRESSES
- WOODWORKING MACHINES
- CRANES
- FRONT-END LOADERS
- SCALES
- SEMI CONDUCTOR PROCESSING

DURASTAR • RODLESS LINEAR POSITION TRANSDUCER

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

The rodless side-sealed DuraStar can also be used to replace a rodDED potentiometer in contaminated applications. As a replacement unit, it will improve performance while providing long life.

Intrinsically Safe for Class I, II, and III Division 1, 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, uF, Li = 0 mH.

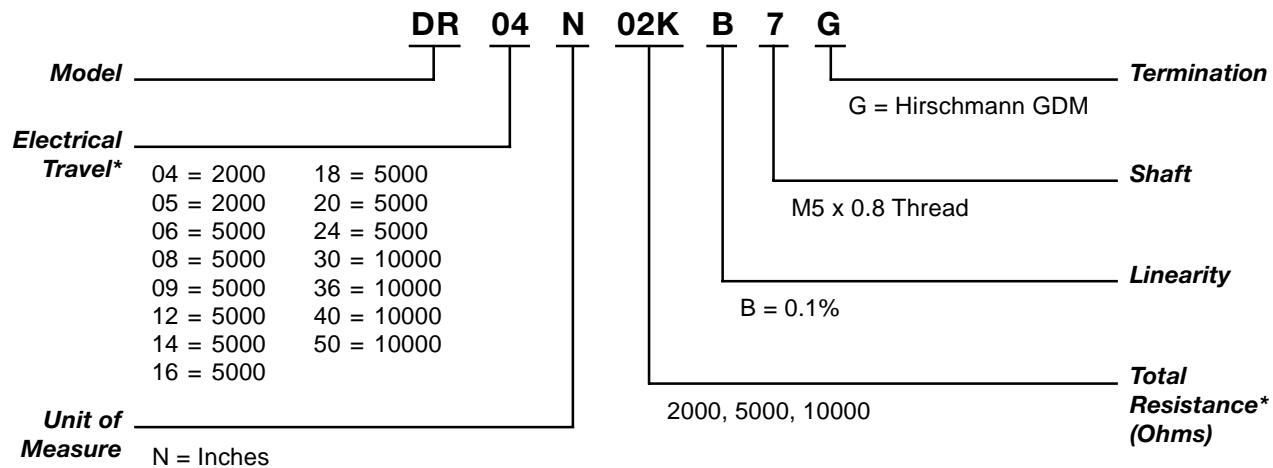


DURASTAR SERIES
RODLESS LINEAR POSITION TRANSDUCER

FEATURES BENEFIT

- | | |
|---|---|
| <ul style="list-style-type: none"> • Vibration damped element • Extended side bearing • Extruded wiper carrier guides • Rugged ribbed housing • Precious metal wipers • MystR® plastic elements • High DC level output • High performance bearings • Absolute continuous measurement | <ul style="list-style-type: none"> • No wiper bounce in high vibration environments • Improved life under high misalignment • Smooth operation under large misalignment • For industrial environment • Insures high performance, low noise, no oxidation • Tested up to 1 billion operations • Works with simple controllers • Long life even under side-load conditions • Accurate position at power-up |
|---|---|

HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.
* Note: The *Electrical Travel* correlates to the *Total Resistance (Ohms)*.

TECHNICAL SPECIFICATIONS

MECHANICAL

Total Mechanical Travel	4.2 to 50.2 in. (106 to 1275 mm)
Starting Force	1.0 lb (0.45 kg)
Total Weight	0.8 to 4.9 lb (0.36 to 2.2 kg)
Vibration	20 g rms 0.75 mm 5 Hz to 2 kHz
Shock	50 g 11 ms half sine
Backlash	0.001 in. (0.025 mm)
Life	One Billion dither operations

ELECTRICAL

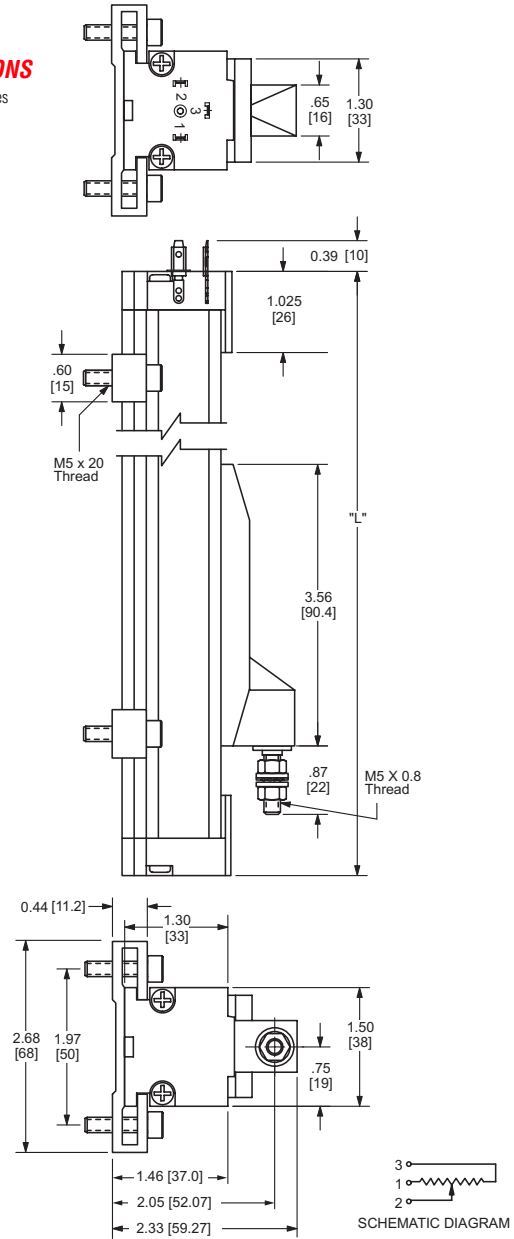
Theoretical Electrical Travel	4.0 to 50 in. (101.6 to 1270 mm)
Independent Linearity	0.1% from 0 to 100% of Theoretical Electrical Travel
Total Resistance	See How To Order
Resistance Tolerance	±20%
Insulation Resistance	1000 M Ohms @ 500 Vdc
Dielectric Strength	1000 Vrms
Operating Temperature	-65° to 105°C (-85° to 221°F)
Resolution	Infinite
Max Applied Voltage	75.0 Vdc
Recommended Wiper Current	<1 µA
Electrical Connection	DIN 43650 Connector or equivalent

Caution: Do not test on an Ohm Meter on the Rx 1 scale or other current devices.
Caution: Excessive Wiper Current can cause Output errors or damage.
Caution: Zero shaft side load is recommended to achieve maximum life.

Model	Body Length 'L' in inches	Model	Body Length 'L' in inches
DR04	9.84	DR18	23.82
DR05	11.02	DR20	25.83
DR06	11.81	DR24	29.84
DR08	13.86	DR30	35.83
DR09	14.80	DR36	41.83
DR12	17.80	DR40	45.83
DR14	20.24	DR50	55.83
DR16	21.81		

DIMENSIONS

xx.xx = inches
(xx.x) = mm



WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Item # 1101500 M.G. 10/01

Honeywell

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Honeywell
100 Discovery Way
Acton, MA 01720 USA



Tel: (877) 384-1300; Fax: (978) 263-0630

www.honeywell.com/sensing/products/di

APPLICATIONS

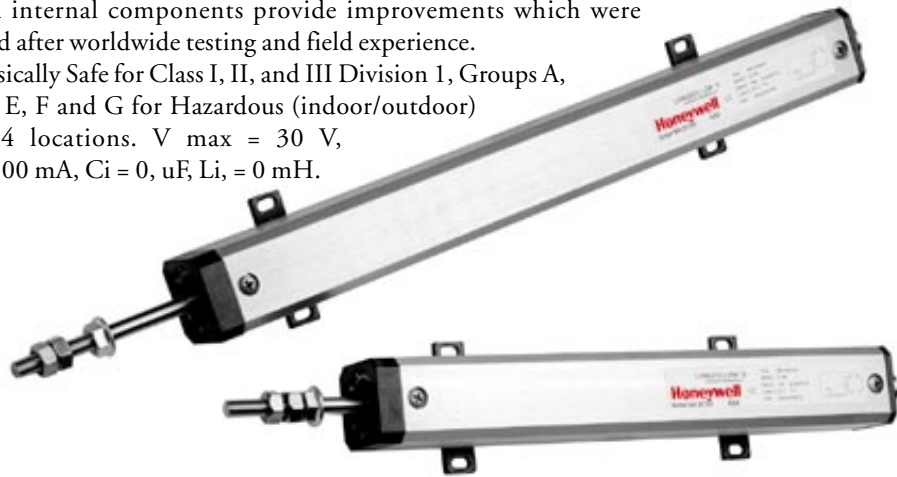
- INJECTION MOLDING MACHINES
- PRINTING PRESSES
- MEAT PACKING EQUIPMENT
- DRILL PRESSES
- WOODWORKING MACHINES
- CRANES
- FRONT-END LOADERS
- SCALES
- SEMI CONDUCTOR PROCESSING

LONGFELLOW II • LINEAR POSITION TRANSDUCER

The new Longfellow II has a rugged long-life design featuring greater resistance to vibration and a smooth high quality signal. It has a solid stainless steel shaft, longer front-end bearings, a vibration-free damped element, a spring-loaded ball joint and a high precision precious metal wiper. Carrier guides extruded the full length of the housing insure smooth operation even under severe side load conditions.

The Longfellow II is a direct drop-in replacement for existing Waters, Data Instruments, Novotechnik, Gefran or Sfernice units. The newly designed internal components provide improvements which were developed after worldwide testing and field experience.

Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G for Hazardous (indoor/outdoor) NEMA 4 locations. $V_{max} = 30 V$, $I_{max} = 100 mA$, $C_i = 0, \mu F$, $L_i = 0 mH$.



LONG FELLOW II SERIES
LINEAR POSITION TRANSDUCER

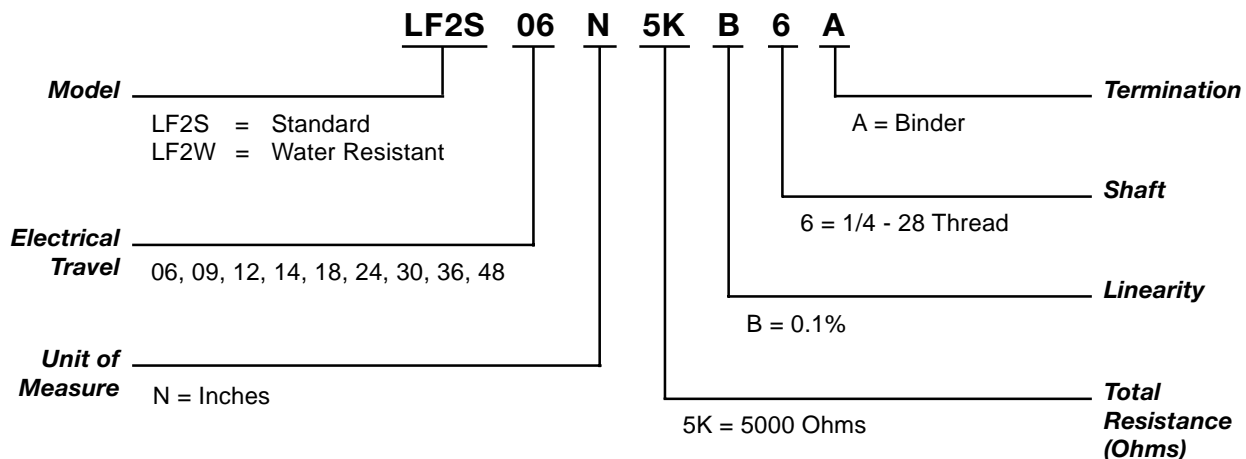
FEATURES

- Vibration damped element
- Spring-loaded ball joint assembly
- Extruded wiper carrier guides
- Precious metal wipers
- MystR® plastic elements
- High DC level output
- High performance bearings
- Absolute continuous measurement
- Shaft seals
- LF2W

BENEFIT

- No wiper bounce in high vibration Environments
- Operation under high side loads
- Smooth operation under large misalignment
- Insures high performance, low noise, no oxidation
- Tested up to one billion operations
- Works with simple controllers
- Long life under side load conditions
- Accurate position at power-up
- Protect internal components from environments
- NEMA 4 and water resistant

HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

TECHNICAL SPECIFICATIONS

MECHANICAL

Total Mechanical Travel	6 to 48 in. (150 to 1200 mm)
Starting Forces*	1.0 lb (0.45 kg)
Total Weight	0.8 to 4.9 lb (0.36 to 2 kg)
Vibration**	20 g rms/0.75 mm 5-2 Hz
Shock	50 g, 11 ms half sine
Backlash	0.001 in. (0.025 mm)
Life	One Billion Dither Operations

ELECTRICAL

Theoretical Electrical Travel	6.0 to 48.0 in. (150 to 1200 mm)
Independent Linearity	0.1% over Theoretical Electrical Travel
Total Resistance	5000 Ohms
Resistance Tolerance	20%
Operating Temperature	-65° to 105° C (-85° to 221° F)
Resolution	Infinite
Insulation Resistance	1000 M Ohms @ 500 Vdc
Dielectric Strength	1000 V rms
Recommended Wiper Current	<1 μA
Electrical Connection	Binder Series 681 Connector or Equivalent
Maximum Applied Voltage	30 Vdc

* Starting force for LFIW 5 lbs. MAX
Water resistant LFIW Models are rated to NEMA 4

** For vibration levels up to 50 g rms and higher additional housing clamps are required

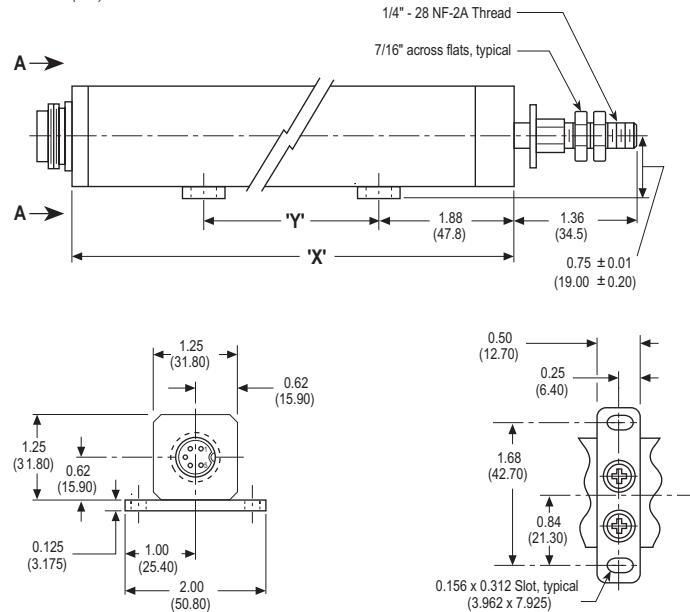
Caution: Do not test on an Ohm Meter on the Rx 1 scale or other current devices.

Caution: Excessive Wiper Current can cause Output errors or damage.

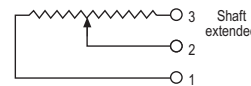
Caution: Zero shaft side load is recommended to achieve maximum life.

DIMENSIONS

xx.xx = inches
(xx.x) = mm



VIEW A-A



SCHEMATIC

MOUNTING FEET (2)

Mounting feet shown above are for standard LF II models only. Mounting feet are not included with water resistant LF II models. Water resistant LF II models are shipped with brackets.

Notes:

1. Total Mechanical Travel equals Electrical Travel plus 0.090 inches minimum
2. 'X' Overall Length equals Electrical Travel plus 3.19 inches
3. 'Y' Equals Electrical Travel minus 1.00 inches
(EXCEPT for LF II 09/225: 'Y' Equals Electrical Travel minus 1.12 inches)

SPECIALS AND ACCESSORIES

- Other Electrical Travels
- Other Resistance Values
- Rod-end Bearings
- Ball Joint Assembly
- Dual Element
- DIN 43650 Connector
- Optional Linearity Values
- M6 x 1 Metric Thread

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

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Item # 1102800 M.G. 10/01

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www.honeywell.com/sensing/products/di

Honeywell

APPLICATIONS

- INJECTION MOLDING MACHINES
- PRINTING PRESSES
- MEAT PACKING EQUIPMENT
- WEATHER INSTRUMENTS
- DRILL PRESSES
- WOODWORKING MACHINES
- CRANES
- FRONT-END LOADERS
- SCALES
- SEMI CONDUCTOR PROCESSING

SHORT LONGFELLOW SERIES • LINEAR POSITION TRANSDUCER

The Short Longfellow is frequently used for measuring linear position or displacement up to 6 inches on a wide variety of manufacturing and process equipment. The mechanical design of the unit's front and rear bearings, anodized extruded aluminum housing, stainless steel shaft and precious metal wipers are suitable for a factory's harsh environment.

Based on the proprietary MystR[®] conductive plastic film, it provides a high resolution, absolute position measurement without external signal conditioners.

Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G for Hazardous (indoor/outdoor) NEMA 4 locations.
 $V_{max} = 30\text{ V}$, $I_{max} = 100\text{ mA}$, $C_i = 0, \mu\text{F}$, $L_i = 0\text{ mH}$.



SHORT LONGFELLOW SERIES
LINEAR POSITION TRANSDUCER

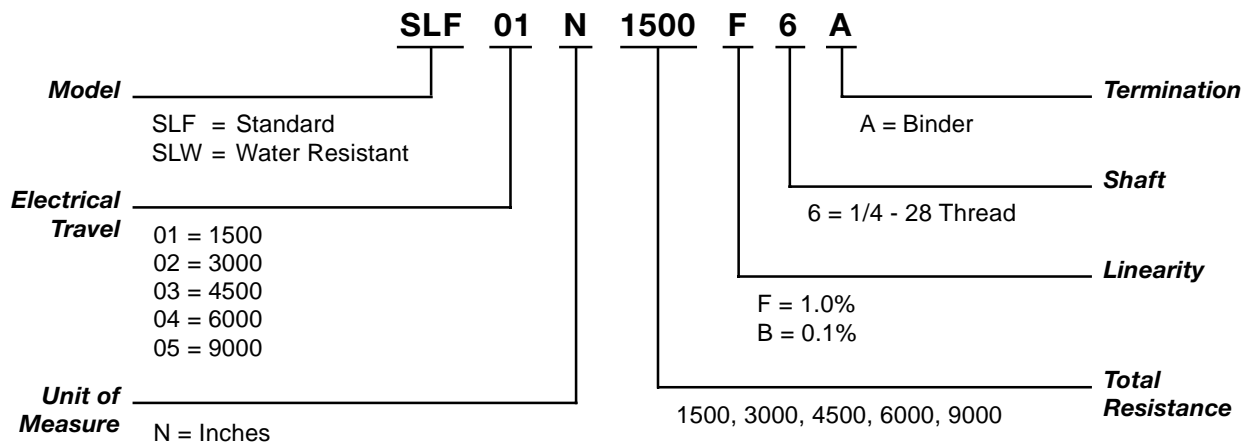
FEATURES

- Precious metal wipers
- 0.081 inch thick housing with 0.25 inch shaft
- Shaft seals
- MystR[®] plastic element
- Absolute continuous measurement
- High performance bearings
- High level DC output

BENEFIT

- Insures high performance, low noise
- Rugged construction for manufacturing environment
- Protects internal components from factory environment
- Tested up to 1 billion operations
- Accurate position at power up
- Long life even with side load conditions
- Works with simple controls

HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

Note: The *Total Resistance* is determined by *Electrical Travel*, at 1500 Ohms per inch.

TECHNICAL SPECIFICATIONS

MECHANICAL

Total Mechanical Travel	See table below
Starting Force*	1 lb
Total Weight	0.26 to 0.49 lb
Vibration	20 g / 0.75 mm (rms) 5-2 kHz
Shock	50 g, 11 ms half sine
Backlash	0.001 in.
Life	One Billion operations

ELECTRICAL

Theoretical Electrical Travel	See table below
Independent Linearity**	±1.0% or ±0.1%
Total Resistance	1500 Ohms per inch theoretical electrical travel
Resistance Tolerance	±20%
Operating Temperature	-65° to 105° C
Resolution	Infinite
Maximum Applied Voltage	40 Vdc
Recommended Wiper Current	<1 µA
Electrical Connection	Binder Series 681 Connector or equivalent

* Starting Force for SLW 5 lbs. (2.3 kg)

** 5-95% of Theoretical Electrical Travel

Caution: Do not test on an Ohm Meter on the Rx 1 scale or other current devices.

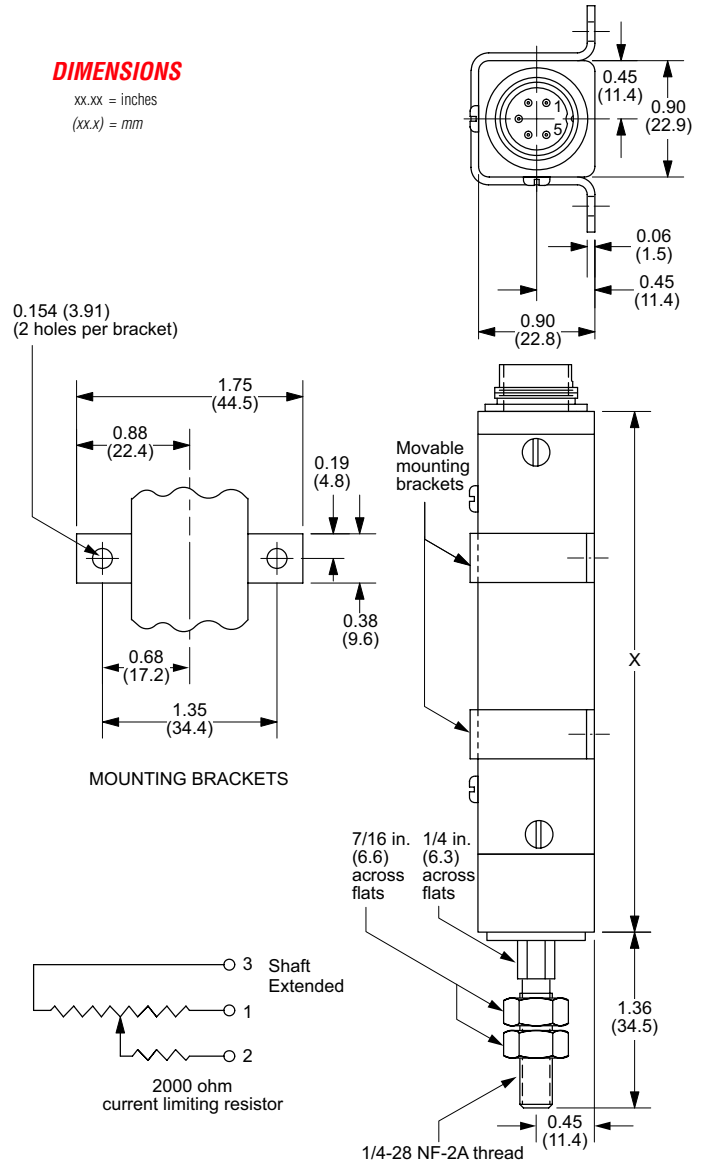
Caution: Excessive Wiper Current can cause Output errors or damage.

Caution: Zero shaft side load is recommended to achieve maximum life.

Model	Electrical Travel in inches	Mechanical Travel in inches	Total Resistance in Ohms	Body Length 'X' in inches
SLF01 or SLW01	1.0	1.20	1500	4.05
SLF02 or SLW02	2.0	2.20	3000	5.05
SLF03 or SLW03	3.0	3.15	4500	5.95
SLF04 or SLW04	4.0	4.15	6000	6.95
SLF06 or SLW06	6.0	6.15	9000	8.95

DIMENSIONS

xx.xx = inches
(xx.x) = mm



SPECIALS AND ACCESSORIES

- Other Mechanical Travels
- Other Electrical Travels
- Other Resistance Values
- Rod and Bearings
- Ball Joint Assembly
- Other Linearity Values

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

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Item # 1098800 M.G. 10/01

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www.honeywell.com/sensing/products/di

Honeywell

APPLICATIONS

- MEDICAL EQUIPMENT
- HOSPITAL BEDS
- LINEAR ACTUATORS
- ANIMATED CHARACTERS
- GAUGING
- WOODWORKING GUIDES
- FLUID FLOW METERS
- SEISMOLOGY
- SEMI CONDUCTOR PROCESSING

LT • HALF INCH DIAMETER LINEAR POSITION TRANSDUCER

The Model LT is a small diameter linear position transducer that is rugged enough to withstand the hostile environment of the factory. Using a proprietary dual wiper and the MystR[®] conductive plastic film the LT provides usable output at high vibration levels for long periods. The LT transducers use precious metal wipers to further enhance reliability. The LT can be provided with shaft seals for spray of hose.

Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G for Hazardous (indoor/outdoor) NEMA 4 locations.
 $V_{max} = 30\text{ V}$, $I_{max} = 100\text{ mA}$, $C_i = 0, \mu\text{F}$, $L_i = 0\text{ mH}$.



MODEL LT
HALF INCH DIAMETER LINEAR POSITION TRANSDUCER

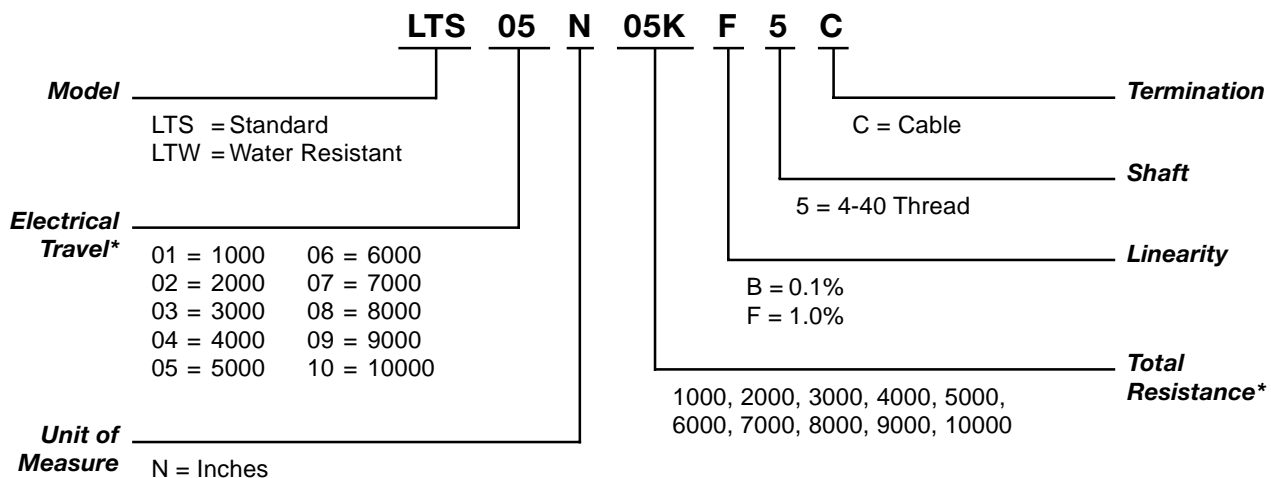
FEATURES

- 0.50 inch diameter
- Dual wiper design
- Extruded wiper block guides
- MystR[®] plastic element
- Anodized extruded aluminum housing
- Stainless steel shaft
- Precious metal contact
- Absolute continuous measurement

BENEFIT

- Fits into tight spaces, clamps easily to cylinders
- Improves shock and vibration performance
- Smooth quiet motion; extends operating life
- Tested up to one billion operations
- Tolerates clamping loads
- Full performance in hostile environments
- Low noise level over entire life
- Accurate position at power up

HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

* Note: The *Electrical Travel* correlates to the *Total Resistance (Ohms)*.

TECHNICAL SPECIFICATIONS

MECHANICAL

Total Mechanical Travel	1.05 to 10.05 in. (min) 26.7 to 255.3 mm (min)
Starting Force	1.0 oz (max)*
Shock	50 g 11 ms half sine
Vibration	20 g rms 5 Hz to 2 KHz
Life	One Billion dither operations

ELECTRICAL

Electrical Travel (1 inch increments)	1 to 10 in. (25.4 to 254.0 mm)
Independent Linearity **	±1.0%
Total Resistance	1000 Ohms per inch electrical travel
Resistance Tolerance	±20%
Operating Temperature	-40° to 80°C (-40° to 176°F)
Resolution	Infinite
Insulation Resistance	500 M Ohms @ 500 Vdc
Dielectric Strength	1000 V rms
Max. Applied Voltage	30 Vdc
Backlash	0.0002 in. max
Recommended Wiper Current	<1 µA

* 12 oz. max. for 'LTW' models rated at IPX5

** From 5% to 95% of theoretical electrical travel

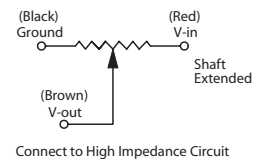
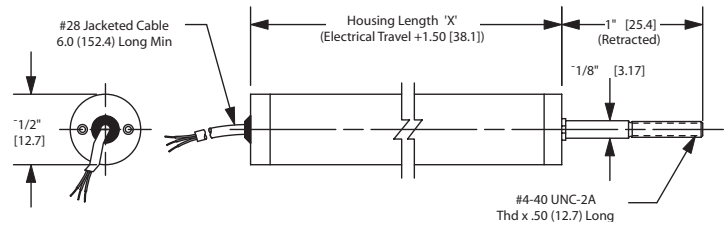
Caution: Do not test on an Ohm Meter on the Rx 1 scale or other current devices.

Caution: Excessive Wiper Current can cause Output errors or damage.

Caution: Zero shaft side load is recommended to achieve maximum life.

DIMENSIONS

xx.xx = inches
(xx.x) = mm



Model	Electrical Travel in inches	Total Resistance Ohms	Housing Length 'X' in inches	Weight in grams
LTS01 or LTW01	1.0	1000	2.5	20
LTS02 or LTW02	2.0	2000	3.5	26
LTS03 or LTW03	3.0	3000	4.5	31
LTS04 or LTW04	4.0	4000	5.5	43
LTS05 or LTW05	5.0	5000	6.5	45
LTS06 or LTW06	6.0	6000	7.5	48
LTS07 or LTW07	7.0	7000	8.5	51
LTS08 or LTW08	8.0	8000	9.5	57
LTS09 or LTW09	9.0	9000	10.5	62
LTS10 or LTW10	10.0	10000	11.5	68

SPECIALS AND ACCESSORIES

- Other Mechanical Travels
- Other Resistance Values
- Other Electrical Travels
- Rod-end Bearing
- Metric Shaft Adapter

WARRANTY/REMEDY

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APPLICATIONS

- MEDICAL EQUIPMENT
- HOSPITAL BEDS
- LINEAR ACTUATORS
- ANIMATED CHARACTERS
- GAUGING
- WOODWORKING GUIDES
- FLUID FLOW METERS
- SEISMOLOGY
- SEMI CONDUCTOR PROCESSING

MLT • 3/8 INCH DIAMETER LINEAR POSITION TRANSDUCER

The Models MLT are small diameter linear position transducers rugged enough to withstand the hostile environment of the factory. Using a proprietary dual wiper, internal ball joint and the MystR® conductive plastic film the MLT provides usable output at high vibration levels for long periods. MLT Transducers use precious metal wipers to further enhance reliability.

Intrinsically Safe for Class I, II, and III Division 1, 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, uF, Li. = 0 mH.



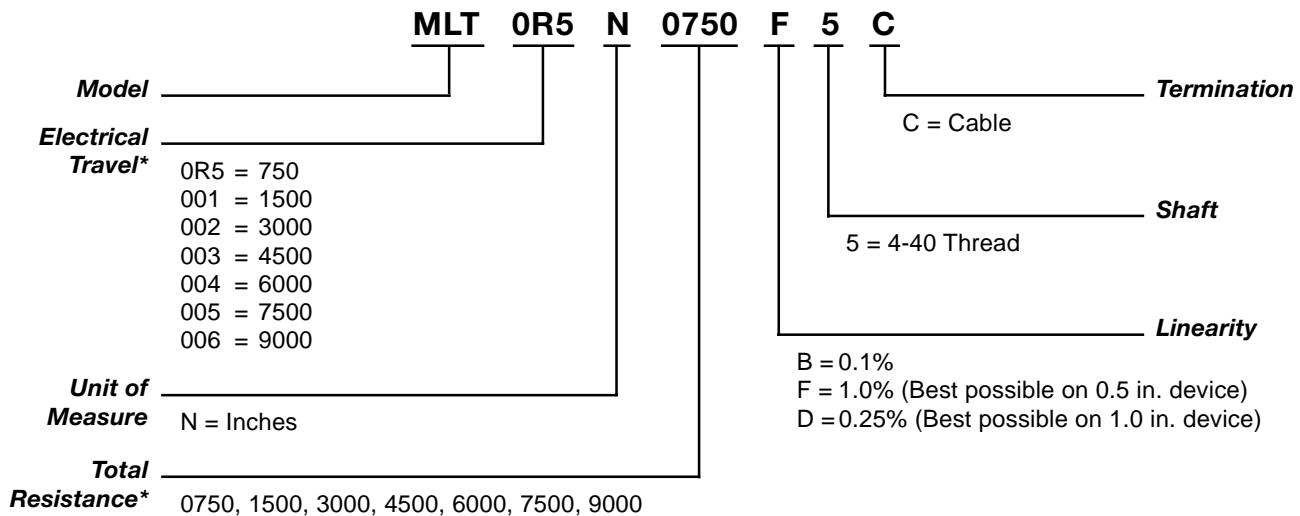
FEATURES

- 0.375 inch diameter
- Dual wiper design
- Extruded wiper block guides
- MystR® plastic element
- Internal spring loaded ball joint
- Anodized extruded aluminum housing
- Stainless steel shaft
- Precious metal contact
- Absolute continuous measurement

BENEFIT

- Fits into tight spaces, clamps easily to cylinders
- Improves shock and vibration performance
- Smooth quiet motion; extends operating life
- Tested up to one billion operations
- Less error from shaft misalignment
- Tolerates clamping loads
- Full performance in hostile environments
- Low noise level over entire life
- Accurate position at power up

HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

* Note: The *Electrical Travel* correlates to the *Total Resistance (Ohms)*.

MODELS MLT • SMALL DIAMETER LINEAR POSITION TRANSDUCER

TECHNICAL SPECIFICATIONS

MECHANICAL

Total Mechanical Travel	0.55 to 6.05 in. (min) 13.9 to 153.7 mm (min)
Starting Force	1.0 oz (max)
Shock	50 g 11 ms half sine
Vibration	20 g rms 5 Hz to 2 KHz
Life	One Billion dither operations

ELECTRICAL

Theoretical Electrical Travel (1 inch increments)	0.5 to 6 in. (12.7 to 152.4 mm)
Independent Linearity	See How to Order
Total Resistance	1500 Ohms per inch electrical travel
Resistance Tolerance	±20%
Operating Temperature	-40° to 80°C (-40° to 176°F)
Resolution	Infinite
Insulation Resistance	500 M Ohms @ 500 Vdc
Dielectric Strength	1000 V rms
Max. Applied Voltage	30 Vdc
Backlash	0.0005 in. max
Recommended Wiper Current	<1 µA

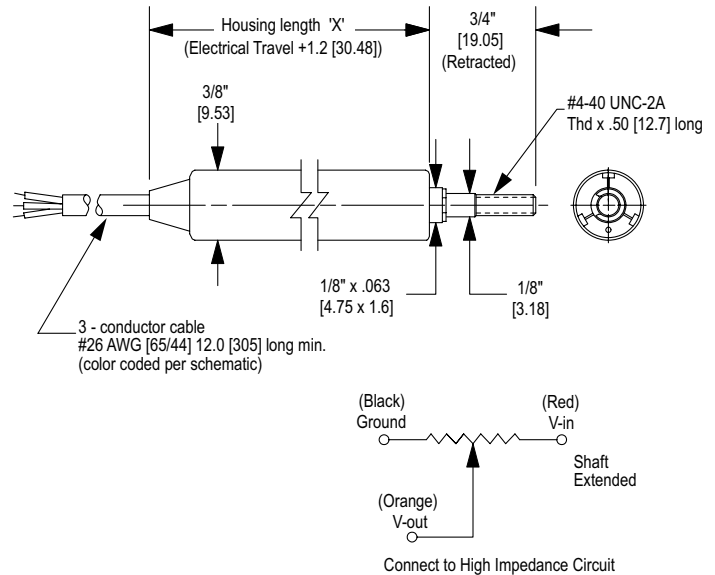
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Caution: Excessive Wiper Current can cause Output errors or damage.

Caution: Zero shaft side load is recommended to achieve maximum life.

DIMENSIONS

xx.xx = inches
(xx.x) = mm



Model	Electrical Travel in inches	Total Resistance Ohms	Housing Length 'X' in inches	Weight in grams
MLT0R5	0.5	750	1.7	11
MLT001	1.0	1500	2.2	14
MLT002	2.0	3000	3.2	20
MLT003	3.0	4500	4.2	23
MLT004	4.0	6000	5.2	28
MLT005	5.0	7500	6.2	30
MLT006	6.0	9000	7.2	31

SPECIALS AND ACCESSORIES

- Other Mechanical Travels
- Other Resistance Values
- Other Electrical Travels
- Rod-end bearing
- Metric Shaft Adapter

WARRANTY/REMEDY

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