

## Precision Linear Transducers, Conductive Plastic, up to 150 mm



### FEATURES

- Measurement range 12.5 mm to 150 mm
- High accuracy ± 1 % down to ± 0.1 %
- Long life
- Essentially infinite resolution
- Very small dimension: External diameter = 9.52 mm

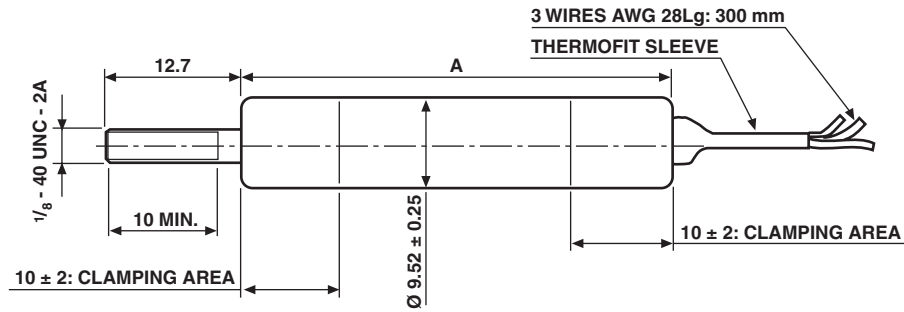


The 38 L is a very compact model especially designed for precise measurement of short travels.

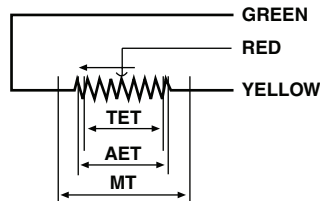
ELECTRICAL SPECIFICATIONS	
Theoretical Electrical Travel (TET)	From 12.5 mm to 150 mm see table 1
Actual Electrical Travel (AET)	AET = TET + 1 mm
Independent Linearity (over TET)	$\leq \pm 1\%$ - $\leq \pm 0.5\%$ $\leq \pm 0.25\%$ for $E \geq 25$ mm $\leq \pm 0.1\%$ for $E \geq 50$ mm
Repeatability	$\leq 0.01\%$
Ohmic Values ( $R_T$ )	From 400 $\Omega/cm$ to 2 $k\Omega/cm$
Resistance Tolerance at 20 °C	$\pm 20\%$
Wiper Current	Recommended: a few $\mu A$ - 1 mA max. (continuous)
Load Resistance	Minimum $10^3 \times R_T$
Insulation Resistance	$\geq 1000 M\Omega$ , 500 $V_{DC}$
Dielectric Strength	$\geq 500 V_{RMS}$ , 50 Hz

MECHANICAL SPECIFICATIONS	
Mechanical Travel (MT)	MT = TET + 3 ± 1 mm
Housing	Anodized aluminum
Operating Force	0.35 N typical
Termination	3 wires PTFE AWG 28 length: 300 mm
Wiper	Precious metal multifinger

PERFORMANCE	
Operating Life	25 million cycles typical/1 Hz/ $T^\circ = 20^\circ C \pm 5^\circ C/80\%$ TET
Temperature Range	- 55 °C to + 125 °C
Sine Vibration on 3 Axes	1.5 mm peak to peak or 15 g - 10 Hz - 2000 Hz
Mechanical Shocks on 3 Axes	50 g -11 ms - half sine

**DIMENSIONS** in millimeters, general tolerance  $\pm 1$  mm

**TABLE 1**

SIZE	TET	MT	A
38 L0.5	12.5	15.5	43.5
38 L01	25	28	56
38 L02	50	53	81
38 L03	75	78	106
38 L04	100	103	131
38 L05	125	128	156
38 L06	150	153	181

**ELECTRICAL CONNECTIONS**


TET = THEORETICAL ELECTRICAL TRAVEL  
 AET = ACTUAL ELECTRICAL TRAVEL  
 MT = MECHANICAL TRAVEL

**ORDERING INFORMATION/DESCRIPTION**

REC	38	L	0.5	C	102	W...	e1
SERIES	MODEL	NUMBER OF TRACKS	ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS	LEAD FINISH
		L = 1 track	0.5 = 12.5 mm 1 = 25 mm 2 = 50 mm 3 = 75 mm 4 = 100 mm 5 = 125 mm 6 = 150 mm	A: $\pm 1\%$ B: $\pm 0.5\%$ C: $\pm 0.25\%$ D: $\pm 0.1\%$	First 2 digits are significant numbers 3rd digit indicates number of zeros	Special feature code number	Sn Ag Cu

**SAP PART NUMBERING GUIDELINES**

RE	38 L	0.5	C	102	W...
SERIES	MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9