

精密直线位移传感器，导电塑料，可变电阻器 Precision Linear Transducers, Conductive Plastic



The 38 L is a very compact model especially designed for precise measurement of short travels.
38L 系列非常精巧，小尺寸，尤其适合于精密测量短行程应用场合。

FEATURES

- 测量行程: 12.5 mm ~ 150 mm
- 高线性精度: $\pm 1\%$ ~ $\pm 0.1\%$
- 长使用寿命
- 理论上无限分辨率
- 非常小尺寸: 外圆直径仅 9.52 mm
- 材料分类认证: 认证规格定义和体系, 产品标签
- 说明详见 www.vishay.com/doc?99912



QUICK REFERENCE DATA

传感器类型	直线位移, 导电塑料技术
信号输出	导线引出 Wires
应用行业	特别行业和工业自动化
尺寸 (公制mm)	外圆直径 $\phi 9.52$ mm

电气参数 ELECTRICAL SPECIFICATIONS

测量电气行程 (TET)	12.5 mm ~ 150 mm 参见表 1
实际电气行程 (AET)	AET = TET + 1 mm
独立线性精度 (在 TET 范围内)	$\leq \pm 1\%$ - $\leq \pm 0.5\%$ $\leq \pm 0.25\%$ 对于 $E \geq 25$ mm $\leq \pm 0.1\%$ 对于 $E \geq 50$ mm
重复精度 Repeatability	$\leq 0.01\%$
电阻阻值 Ohmic values (R_T)	400 Ω /cm ~ 4 k Ω /cm
阻值误差 (在 $t 20^\circ\text{C}$ 环境)	$\pm 20\%$
电刷电流 Wiper current	推荐电流: $\mu\text{A} - 1\text{ mA}$ 最大 (连续) A: 安倍
负载电阻 Load resistance	最小 Minimum $10^3 \times R_T$
绝缘电阻 Insulation resistance	$\geq 1000\text{ M}\Omega$, 500 V _{DC}
介质强度 Dielectric strength	$\geq 500\text{ V}_{\text{RMS}}$, 50 Hz

机械参数 MECHANICAL SPECIFICATIONS

机械行程 (MT)	MT = TET + 3 mm ± 1 mm
外壳材料 Housing	氧化铝 Anodized aluminum
移动力 Operating force	0.35 N typica, 通常0.35牛顿力
信号输出 Termination	三芯PTFE 导线, 线标号AWG26, 引出300mm长。(3 wires PTFE AWG 26 length: 300mm)
电刷 Wiper	精密金属多个触头 Precious metal multifinger

环境参数 PERFORMANCE

使用寿命 Operating life	25百万次 往复周期 25 million cycles typical / 1 Hz/ $T^\circ = 20^\circ\text{C} \pm 5^\circ\text{C}/80\%$ TET
温度范围 Temperature range	$-55^\circ\text{C} \sim +125^\circ\text{C}$
三维正弦振动 Sine vibration on 3 axes	1.5 mm 峰值~峰值 (peak to peak) 或 15 g - 10 Hz - 2000 Hz
三维机械震动 shocks on 3 axes	50 g - 11 ms - half sine

Note

- Nothing stated herein shall be construed as a guarantee of quality or durability. 本文所述内容不得解释为质量或耐久性的保证。

尺寸 公制mm 误差± 1 mm **DIMENSIONS** in millimeters, general tolerance ± 1 mm

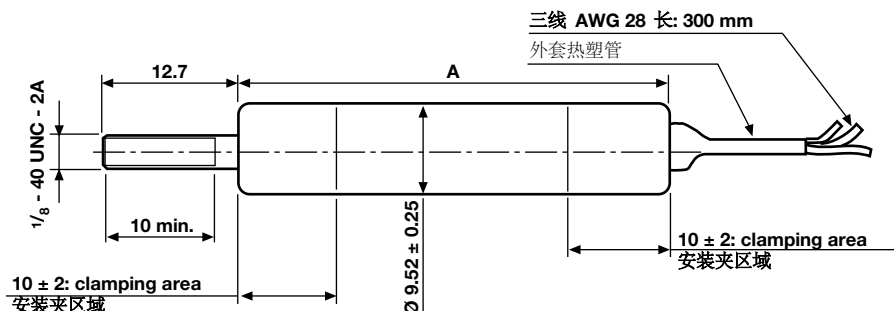
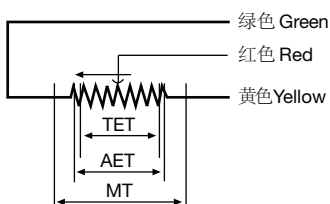


表 1	TABLE 1
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SIZE 测量行程	TET 测量电气行程 (mm)	MT 机械行程 (mm)	A外壳长度 (mm)
38 L0.5	12.5	15.5	43.5
38 L01	25	28	56
38 L02	50	53	81
38 L03	75	78	106
38 L04	100	103	131
38 L05	125	128	156
38 L06	150	153	181

电气接头连接 ELECTRICAL CONNECTIONS



TET = 测量行程 theoretical electrical travel
AET = 实际行程 actual electrical travel
MT = 机械行程 mechanical travel

订购型号说明 ORDERING INFORMATION/DESCRIPTION

REC	38	L	0.5	C	102	W...	e1
系列	MODEL	电阻轨迹数	电气行程	线性精度	电阻值	MODIFICATIONS	LEAD FINISH
		L = 1 轨迹	0.5 = 12.5 mm 1 = 25 mm 2 = 50 mm 3 = 75 mm 4 = 100 mm 5 = 125 mm 6 = 150 mm	A: ± 1 % B: ± 0.5 % C: ± 0.25 % D: ± 0.1 %	前二位有效数， 第三位是添 加"0"的个数。比 如：102=1000 Ω	后缀代码 特别特性 代码Special feature code number	Sn Ag Cu

SAP 订购型号 (除了系列不同, 其余同上) SAP PART NUMBERING GUIDELINES

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