

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



### 特性 FEATURES

- 测量行程: 25 mm ~ 450 mm
- 高线性精度:  $\pm 1\%$  ~  $\pm 0.025\%$
- 理论上无限分辨率
- 长使用寿命
- 防护密封等级, 可以定制。
- 材料分类认证: 认证规格定义和体系, 产品标签说明 compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



The 34 L is a compact, accurate and adaptable motion transducer for both industrial and military markets.

### QUICK REFERENCE DATA

Sensor type	LINEAR, conductive plastic
Output type	Wires
Market appliance	Professional
Dimensions	L x 19 mm dia. (with L = TET + 63 mm)

### 电气参数 ELECTRICAL SPECIFICATIONS

测量电气行程 (TET = E)	25 mm ~ 450 mm 每 25 mm 递增 in increments of 25 mm
独立线性精度 (在 TET 范围) 可客户定制 On request	$\leq \pm 1\%$ - $\leq \pm 0.1\%$ $\leq \pm 0.05\%$ 对于 $E \geq 100$ mm $\leq \pm 0.025\%$ 对于 $E \geq 200$ mm
实际电气行程 (AET)	见表 1
电阻阻值 ( $R_T$ )	400 $\Omega$ /cm ~ 2 k $\Omega$ /cm
电阻值误差 (在 20 °C 环境)	$\pm 20\%$
重复性 Repeatability	$\leq 0.01\%$
最大额定功率 power rating	0.05 W/cm at 70 °C, 0 W at 125 °C
电刷电流 Wiper current	推荐电流: $\mu A$ - 1 mA 最大 (连续)
负载电阻 Load resistance	最小 Minimum $10^3 \times R_T$
电阻轨迹数 Number of tracks	1 条轨迹; 根据要求可以 2 条轨迹
绝缘电阻 Insulation resistance	$\geq 1000 M\Omega$ , 500 V <sub>DC</sub>
介质强度 Dielectric strength	$\geq 750 V_{RMS}$ , 50 Hz

### 机械参数 MECHANICAL SPECIFICATIONS

机械行程 Mechanical travel	TET + 2 mm min.
外壳材料 Housing	氧化铝 Anodized aluminum
移动工作力 Operating force 根据要求 On Request	0.35 N typical (standard model) 0.35 牛顿力 标准型 2.50 N typical (2.5 牛顿力) (sealed model) 密封等级
移动拉杆 Shaft (自由旋转 free rotation)	不锈钢 Stainless steel
信号输出 Termination 可以要求 On request	3 根 PTFE AWG-30 线缆 长 L = 300 mm 导线线缆或航空插头, 可以定制要求 cable or connector
电刷 Wiper	精密金属多触头 Precious metal multifinger
密封等级 Sealing	IP65 可根据要求 on request

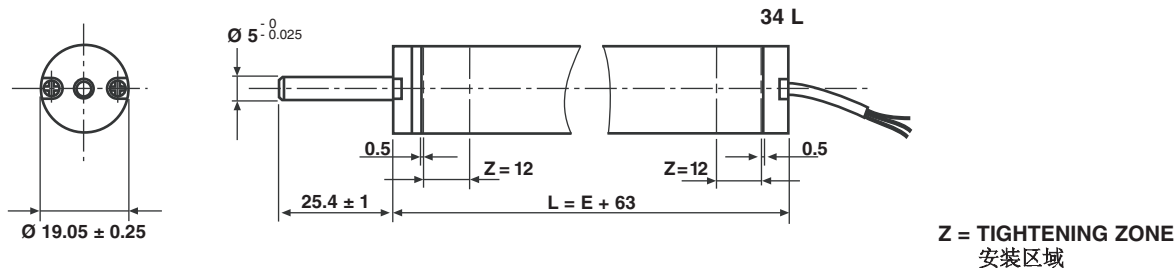
### PERFORMANCE

使用寿命 Operating life	25 百万次往复周期 25 million cycles typical / 1 Hz/T° = 20 °C $\pm 5$ °C/80 % TET
温度范围 Temperature range	-55 °C ~ +125 °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 半正弦

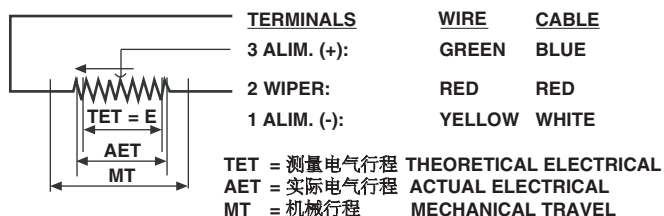
#### Note

- 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。

## 标准型 (公制mm ± 1 mm) STANDARD MODEL DIMENSIONS in millimeters, general tolerance ± 1 mm



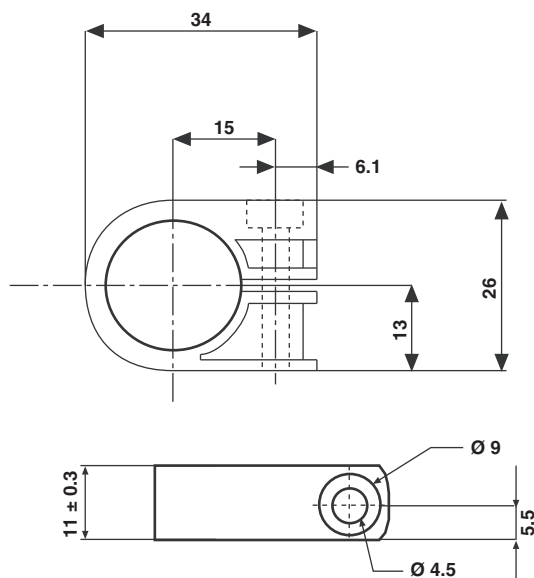
## 电气连接 ELECTRICAL CONNECTIONS



TET = E	AET	TOL.
25 mm ~ 275 mm	E + 1 mm	± 0.5 mm
300 mm ~ 450 mm	E + 1 mm	± 0.8 mm

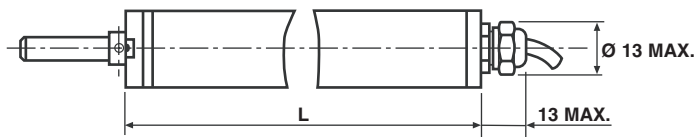
## 附件 (另订购) ACCESSORIES ON REQUEST - DIMENSIONS in millimeters, general tolerance ± 3 mm

Clamp for 34L 专用安装夹,  
Vishay Reference: CQ00051  
Vishay 订货参考号: CQ00051



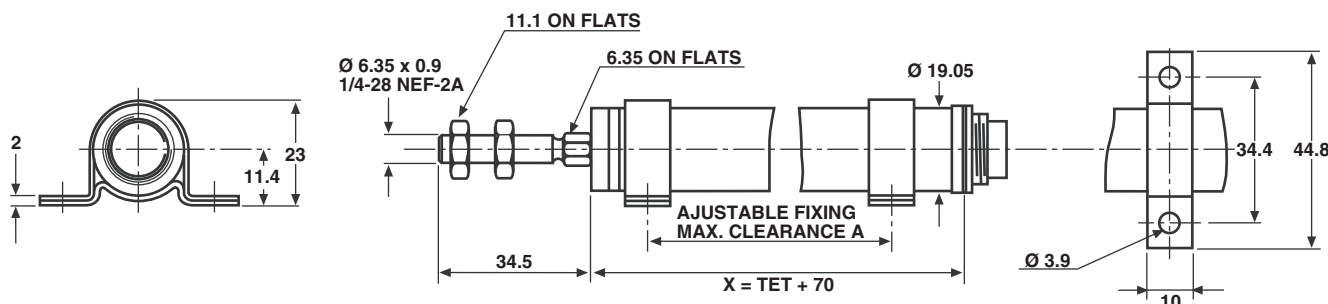
## 可选项 OPTIONS - DIMENSIONS in millimeters, general tolerance $\pm 1$ mm

### 选项 1: 密封等级 (IP65): W03280

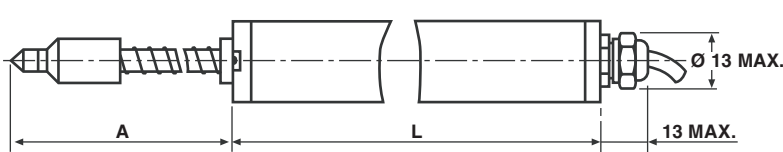


MODEL	CODE	L
34 L	W03280	TET + 83.5

### 选项 2: 随同提供安装夹 CLAMPS 和宾德680插头 BINDER CONNECTOR 680: W05013

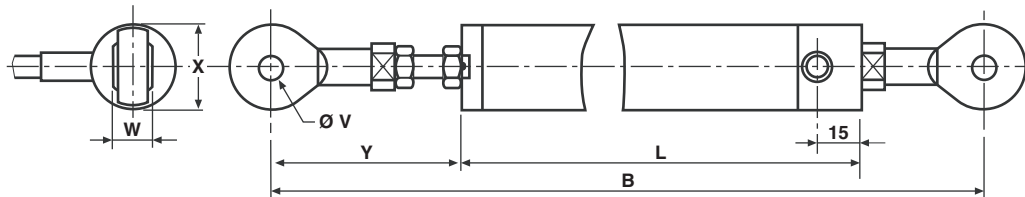


### 选项 3: 弹簧自复位; 屏蔽线缆信号输出 SHIELDED CABLE: W01744



MODEL	CODE	A	L
34 L1	W01744	61.4	TET + 119.5
34 L2	W01744	93.6	
34 L3	W01744	125.8	
34 L4	W01744	158	

### 选项 4: 双万向节 DOUBLE BALL JOINT: W03263



MODEL CODE	B	L	Ø V	W	X	Y	TET
34 L W03263 L1 to L5	TET + 151.6	TET + 82.8	5	8	18	42 ± 2	25 to 125
L6 to L10	TET + 173.6	TET + 104.8	5	8	18	42 ± 2	150 to 250
L11 to L12	TET + 230	TET + 161.2	5	8	18	42 ± 2	275 to 300

## 订货型号说明 ORDERING INFORMATION/DESCRIPTION

REC	34	L	3	D	103	W...	e.
SERIES	MODEL	NUMBER OF TRACKS	THEORETICAL ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS	LEAD FINISH
		L = 1 track LL = 2 tracks	Times 25 mm	A: $\pm 1$ % D: $\pm 0.1$ % E: $\pm 0.05$ % F: $\pm 0.025$ %	First 2 digits are significant numbers 3rd digit indicates number of zeros	Special feature code number	

## SAP 订货型号 (除系列 SERIES不同, 其余同上) SAP PART NUMBERING GUIDELINES

RE	34 L	3	D	103	W....
SERIES	MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES



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