Precision Linear Transducers, Conductive Plastic, up to 450 mm

FEATURES

- Measurement range 25 mm to 450 mm
- High accuracy ± 1 % down to ± 0.025 %
- Essentially infinite resolution
- Long life
- Sealed on request

RoHS COMPLIANT

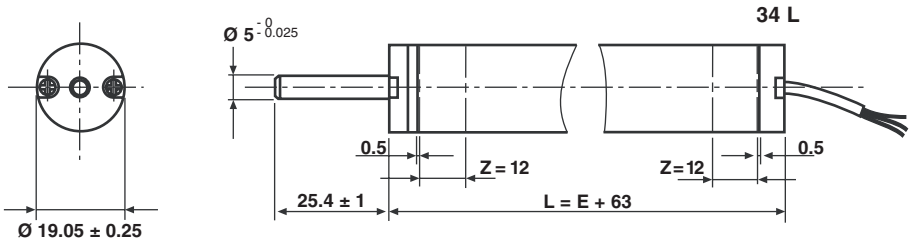
The 34 L is a compact, accurate and adaptable motion transducer for both industrial and military markets.

ELECTRICAL SPECIFICATIONS	
Theoretical Electrical Travel (TET = E) in Increments of 25 mm	25 mm 450 mm
Independent Linearity (over TET) On Request	≤ ± 1 % - ≤ ± 0.1 % ≤ ± 0.05 % for E ≥ 100 mm ≤ ± 0.025 % for E ≥ 200 mm
Actual Electrical Travel (AET)	See table 1
Ohmic Values (R_T)	From 400 Ω/cm to 2 kΩ/cm
Resistance Tolerance at 20 °C	± 20 %
Repeatability	≤ 0.01 %
Maximum Power Rating	0.05 W/cm at 70 °C, 0 W at 125 °C
Wiper Current	Recommended: a few µA - 1 mA max. (continuous)
Load Resistance	Minimum 10^3 x R_T
Number of Tracks	1; on request 2
Insulation Resistance	≥ 1000 MΩ, 500 V_{DC}
Dielectric Strength	≥ 750 V_{RMS}, 50 Hz

MECHANICAL SPECIFICATIONS		
Mechanical Travel	TET + 2 mm min.	
Housing	Anodized aluminum	
Operating Force On Request	0.35 N typical (standard model)	2.50 N typical (sealed model)
Shaft (Free Rotation)	Stainless steel	
Termination On Request	3 wires PTFE AWG-30 L = 300 mm cable or connector	
Wiper	Precious metal multifinger	
Sealing	IP65 on request	

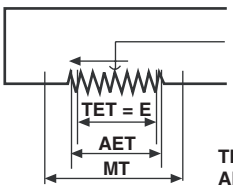
PERFORMANCE	
Operating Life	25 million cycles typical/1 Hz/T° = 20 °C ± 5 °C/80 % TET
Temperature Range	- 55 °C to + 125 °C
Sine Vibration on 3 Axes	1.5 mm peak to peak or 15 g - 10 Hz - 2000 Hz
Mechanical Shocks on 3 Axes	50 g - 11 ms - half sine

STANDARD MODEL DIMENSIONS in millimeters, general tolerance ± 1 mm



Z = TIGHTENING ZONE

ELECTRICAL CONNECTIONS



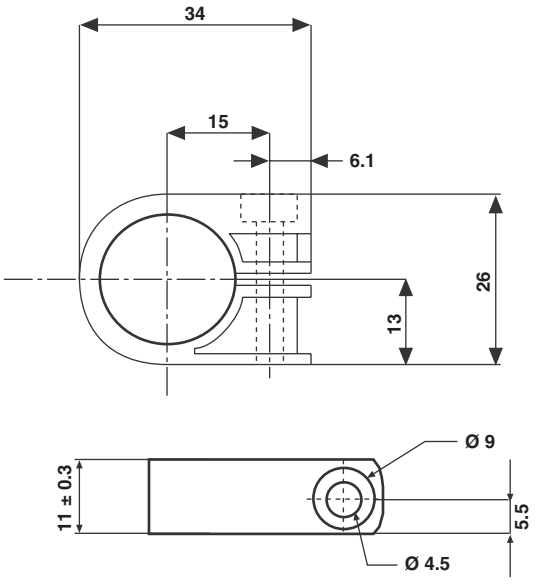
TERMINALS	WIRE	CABLE
3 ALIM. (+):	GREEN	BLUE
2 WIPER:	RED	RED
1 ALIM. (-):	YELLOW	WHITE

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

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

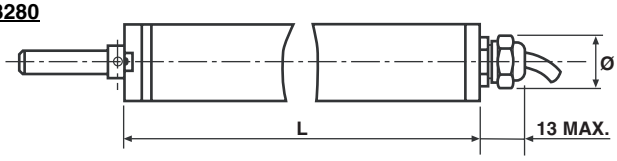
ACCESSORIES ON REQUEST - DIMENSIONS in millimeters, general tolerance ± 3 mm

Clamp for 34L
Vishay Reference: CQ00051



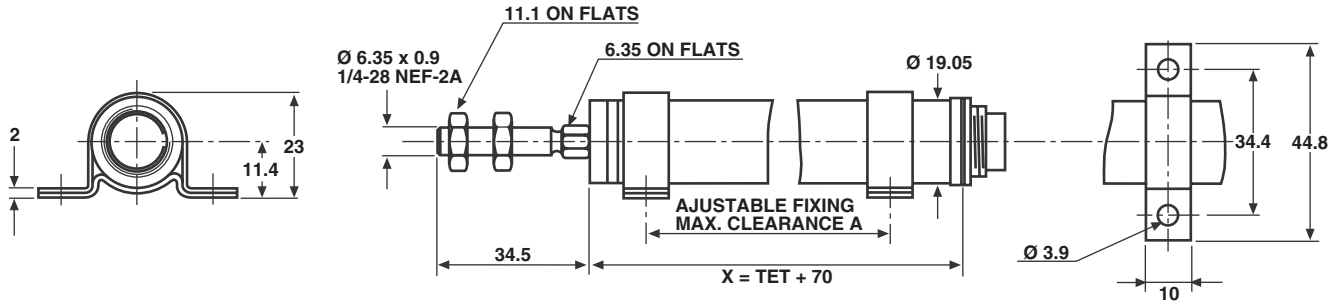
OPTIONS - DIMENSIONS in millimeters, general tolerance ± 1 mm

OPTION 1: SEALED (IP65): W03280

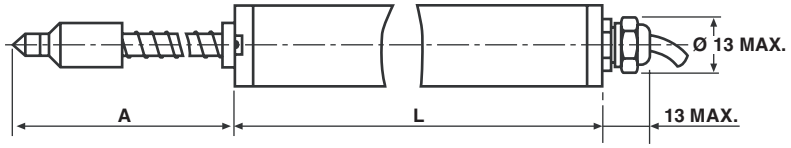


MODEL	CODE	L
34 L	W03280	TET + 83.5

OPTION 2: DELIVERED WITH CLAMPS AND BINDER CONNECTOR 680: W05013

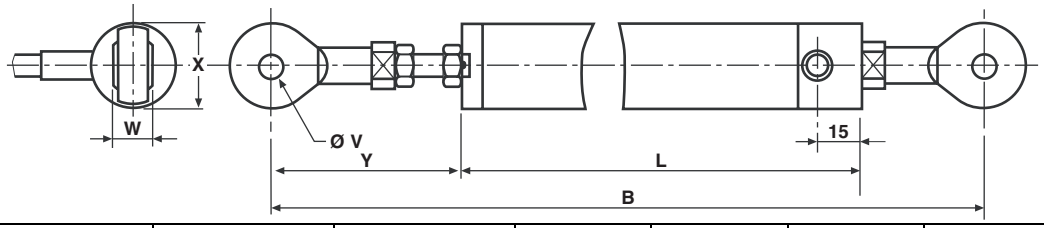


OPTION 3: SPRING LOADED SHAFT; OUTPUT BY SHIELDED CABLE: W01744



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	

OPTION 4: 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

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: ± 1 % D: ± 0.1 % E: ± 0.05 % F: ± 0.025 %	First 2 digits are significant numbers 3rd digit indicates number of zeros	Special feature code number	

SAP PART NUMBERING GUIDELINES

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

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