

# THE SLVC TRANSDUCERS SERIES UVB4000



The Displacement Measurement Range of product consists of measurement transducer and their supporting electronics. UVB's Displacement transducers provide high linearity, excellent long term stability and resolution of up to 1ppm of full range. The 4000 Serie Linear transducers are compact, robust sensors for use in applications ranging from metrology to heavy industry. Compared with other transducer systems, they are more stable, accurate and sensitive than LVDTs; longer lived, more robust and accurate than potentiometers; more compact and robust than optical laser systems.

## Features

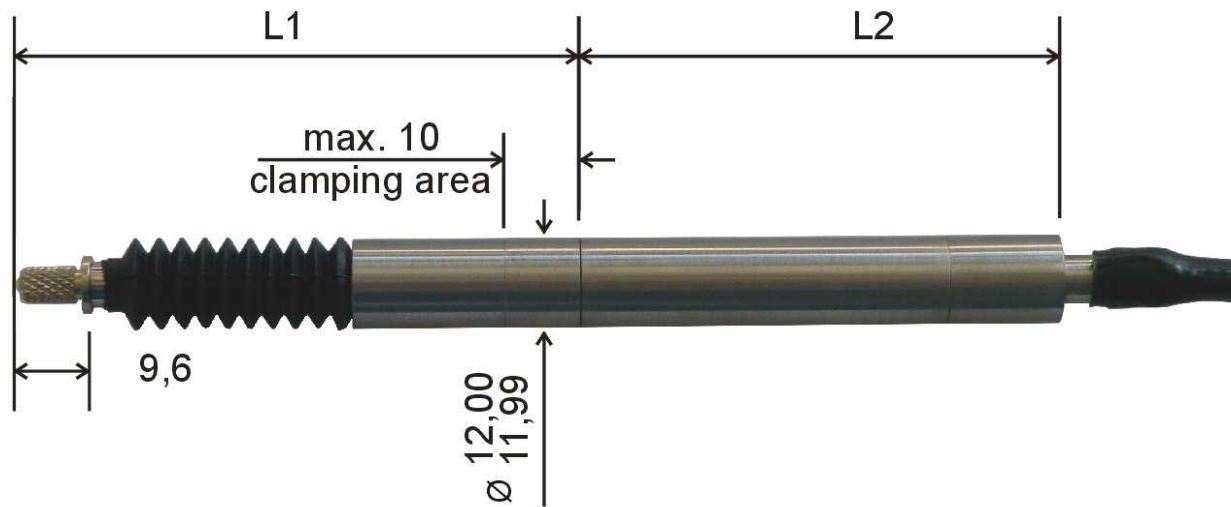
- Excellent Linearity of the transducers  $< 0.01\%$  of range, linearity curves are smooth and reach an optimum near to the center of travel
- Very High Accuracy up to  $\pm 1\ \mu\text{m}$  in full range. All transducers are individually calibrated by reference to gauge blocks.
- Excellent Resolution of up to  $0.01\ \mu\text{m}$  (1 ppm of range), non-granular
- The transducers are tolerant of wide temperature ranges, high magnetic fields and radioactive environments
- The transducers have superlative stability. The sophisticated construction has no windings, bobbins or magnetic circuit limitations
- The Robust Construction - The design of the internal elements has been optimised to absorb vibration by mounting them within a separate shock resistant cage (no electronic parts, no glass inside)
- The transducers can be mounted in any orientation
- Wide dynamic Range - which is supplemented by overtravel of 2 mm at each extreme

## Accuracy:

Model	Range [mm]	Accuracy [mm]		
		Grade A	Grade B	Grade C
UVB4010	0 – 10	$\pm 0,001$	$\pm 0,002$	$\pm 0,01$
UVB4030	0 – 30	$\pm 0,003$	$\pm 0,006$	$\pm 0,03$



## Dimensions:



Dimensions	L1 (0 Volts)	L1 (10 Volts)	L2
Model	mm	mm	mm
UVB4010	58	68	64
UVB4030	74	104	84

## Technical:

**Materials:** Electrode, body and shaft material is stainless steel (TC<12 ppm/°C).

**Temperature range:** Up to 90°C (100°C without bellow) for long term operation.  
Storage up to 125°C.

**Cables and Connectors:** Three cables (3 m standard) in flexible hose, terminated with BNC  
3 x BNC 50 Ohm

**Anvil:** Removable steel anvil (M2,5) with ruby ball tip

**Bearing type:** Linear Ball

**Return spring:** 100 ± 20 grams at 0 Volts and 41 ± 10 grams at full range (10 V).

**Signal conditioner:** UVB3291 (single), UVB3292 (dual)

