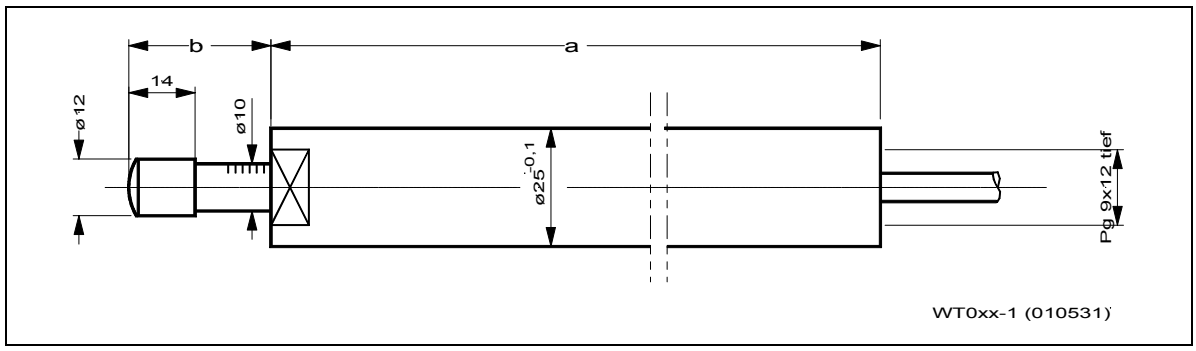
WT - 010 / 025

Induction Displacement Probe



Dimensions	WT - 010	WT - 025
a	195 mm	265 mm
b	30 mm	45 mm

Note*: The measure (b) corresponds to the electrical zero point. The measuring direction into positive and negative horizontal begins here !*

1 Application and Function

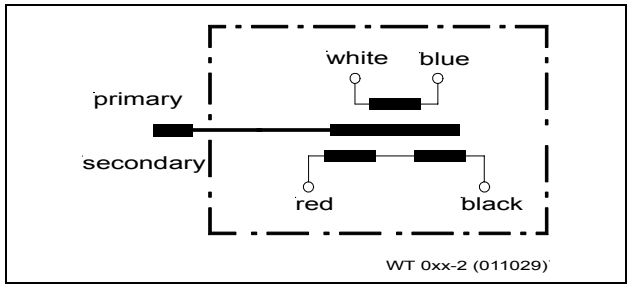
The inductive displacement sensor is mainly used for measuring the case expansion of steam turbines relative to the foundation.

The displacement sensor is based on the inductive principle of operation. The secondary voltage of the differential transformer is influenced by the displacement of a ferromagnetic solenoid plunger. The resulting amplitude change is converted into an analogue output signal in the corresponding measuring amplifier SP-502.

The measuring system of the displacement sensor is installed in a rugged stainless steel housing. The measuring pin is guided in plain bearings lubricated for life.

The installed spring is designed such that the measuring pin does not lift off, even in case of vibration in measuring direction.

1.1 Connection Diagram



2 Technical Data

Type	**WT - 010**	**WT - 025**
Measuring distance	20 mm	50 mm
Nominal displacement	± 10 mm	± 25 mm
Transmission factor in conjunction with SP-502	500 mV/mm	200 mV/mm
Total weight	approx. 500 g	approx. 650 g
Weight of measuring rod	approx. 75 g	approx. 80 g
Sensitivity	approx. 8 mV/V/mm	
Nominal output signal	approx. 80 mV/V	
Supply voltage (eff.)	up to 5 V	
Carrier frequency	5 kHz	
Linearity error	± 0.4 % of total displacement	
Zero point temperature error	± 0.1 % / 10 K	
Sensitivity temperature error	± 0.15 % / 10 K	
Service temperature	-50 °C ... 120 °C	
Protection in accordance with DIN 40050	IP 54	
Connecting cable	Teflon cable l = 5 m	

3 Mounting

We recommend to protect the displacement sensor by an appropriate protection device against shocks, strokes and also contamination. For mounting, we recommend our mounting trestle AC-175.