

# VW Displacement Gauge VWDT-5000

Geosense® VWDT-5000 series of vibrating wire displacement gauges cover displacement ranges up to 300mm and are fully waterproof to a minimum of IP68 (16 bar external pressure)





#### VW Displacement Gauge VWDT-5000

#### Overview





Geosense® VWDT-5000 series of vibrating wire displacement transducers cover displacement ranges up to 300mm and are fully waterproof to a minimum of IP68 (16 bar external pressure). They can be incorporated into many displacement products such as crack and joint meters, convergence meters, soil extensometers and displacement meters.

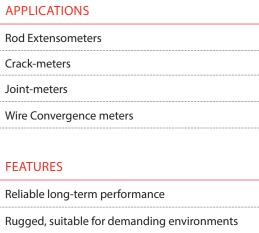
VWDT-5000 transducers are particularly rugged, and are carefully constructed and thermally aged to minimise long term drift and changes in calibration. The gauges will withstand demanding environmental factors encountered in Civil Engineering construction sites such as tunnels and piling applications.

The data from the VWDT-5000 can be monitored by means of a portable read-out unit or connected to a data logger and distributed if required by telemetry.

Vibrating wire instruments output a frequency signal, and are therefore insensitive to resistance changes in connecting cables caused by contact resistance or leakage to ground. Cable may be readily and simply extended on site without special precautions. Gauges may be read up to 1000 metres away from their installed location, without change in calibration.

Instruments may be read by any commercially available Vibrating wire readout system operating on either the pluck pulse or swept frequency excitation principle, provided that these units operate over the frequency range of the instruments. In addition, these instruments can be data-logged by a variety of data-loggers equipped with vibrating wire excitation modules including Campbell Scientific and Datataker units.

Units are supplied with a M6 female threaded connection on the measuring plunger.



High accuracy

Waterproof to 16 bar

Insensitive to long cable lengths



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## **Specifications**

Model	Range (mm)	Length Compressed (mm)	Length Extended (mm)	Diameter (mm)				
VWDT-5001*	5	200	204	13				
VWDT-5002	12.5	213	224	13				
VWDT-5003	25	262	283	13				
VWDT-5004	50	293	338	13				
VWDT-5005	75	387	454	13				
VWDT-5006	100	418	508	13				
VWDT-5007	150	548	683	13				
VWDT-5008	200	678	858	13				
VWDT-5009	300	935	1205	13				
VWDT-5010	500	1451	1901	13				
PERFORMANCE								
Resolution		<0.025% FS	<0.025% FS					
Accuracy		±0.1% FS	±0.1% FS					
Nonlinearity		<0.5% FS						
ELECTRICAL								
Frequency range		1650-2700 Hz						
Nominal zero value		1850 Hz	1850 Hz					
MECHANICAL								
Operating temperature range		-20 °C to +80°C	-20 °C to +80°C					
Body material		Stainless steel	Stainless steel					
Inner rod		Stainless steel						
O-ring		Viton						
Waterproof rating		IP68 (16 bar)	IP68 (16 bar)					
Cable		2 pair PUR sheath	2 pair PUR sheath					
Cable Type		Type 900 - VW Sensor v	Type 900 - VW Sensor with Foil Screen & Drain Wire					
ORDERING INFO	DRMATION							
Range								
Anchor type								
Readout type								
*Available on request								



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