

# Güralp 3T Portable



## COMPACT WEAK MOTION BROADBAND SEISMOMETER



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A high performance, low noise triaxial sensor suitable for rapid deployment.

The Güralp 3T portable is a compact three-component, broadband instrument suitable for rapid deployment. The force feedback sensor is based on a well proven, established design that has been in continuous production since 1987. The 3T sensor is in use on many national seismic networks, with in excess of 3000 instruments deployed worldwide.

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### Key features

Force feedback broadband instrument

Lifting handle and all connectors on the top of the instrument

Waterproof and durable with O-ring seals throughout

Quick and easy, one-person installation

Digital output and communication versions available

Optional hybrid response models are available, e.g. flat to velocity from 50 Hz to 30 s and, flat to acceleration between 30 s and 200 s, offering unrivalled dynamic range.

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### Applications

- > Seismic monitoring
- > Posthole installation
- > Rapid deployment for regional aftershock monitoring
- > Passive-source seismic imaging for hydrocarbon exploration and reservoir monitoring

## SPECIFICATIONS

SYSTEM		PHYSICAL	
Configuration / Topology	Triaxial orthogonal (ZNE)	Diameter	168 mm
PERFORMANCE		Height without handle	274 mm
Frequency Bandwidth	0.008 to 50 Hz (120 to 0.02 s) standard Other options available	Height with handle	344 mm
Output sensitivity	2000 V/ms <sup>-1</sup> (2 × 1000 V/ms <sup>-1</sup> ) differential output - other options available	Enclosure/Materials	Stainless steel case
Peak / Full scale output	±10 V differential	Weight	14.2 kg
Sensor Dynamic Range	> 140 dB dynamic range over the entire passband	Communication / Connectors	Mil-spec connector (optional 1500 psi waterproof connector or user connector)
Self-noise below NLNM	>200 s to 20 Hz (Vertical)	Environmental protection (IP rating)	IP68 for outdoor use and and immersion resistance
Cross axis rejection	> 65 dB		
Linearity	> 111 dB vertical; > 107 dB horizontal		
Lowest spurious resonance	> 140 Hz (vertical)		
Transfer function	User manual is available to download from the website. Each sensor is provided with full calibration details including measured sensitivity, measured frequency response and instrument poles and zeros		
Calibration controls	Independent signal & enable lines exposed on sensor connector		
MASS / MONITORING CONTROL			
Sensor Mass positions	Three independent sensor mass position outputs (single ended)		
Locking	Remote auto mass lock/unlock for transportation		
Mass centre	Remotely controlled automatic mass centreing		
POWER			
Power consumption	0.74 W		
Power voltage range	9– 36V DC Optional low power sensor: 5 V DC supply (± 4.5 V)		
ENVIRONMENTAL			
Operating temperature	-20 to +75 °C (–55 °C option)		
Storage Temperature	-55 to +85 °C		
Shock	100g half sine, 5 ms without damage, 6 axes		
Humidity	0-100% RH non condensing		