



METER
ENVIRONMENT



Drain Gauge G3 Lysimeter

Dependable Deep Drainage

INCREDIBLY EASY TO USE

The Drain Gauge G3 allows you to deploy multiple units to cover a large area at an affordable cost. It's an incredibly easy-to-use lysimeter that provides dependable monitoring of leaching, drainage, and recharge without the complexity of larger systems. This means you can instrument entire agricultural fields to better quantify variability. The G3 was deliberately engineered to be installed below the plow layer, so growers can perform normal operations directly over the instrument, which eliminates problems like edge effects. Plus, the Drain Gauge G3 can be combined with METER soil moisture sensors and precipitation gauges to estimate the total water balance more accurately than methods which only guess at deep drainage as a residual.

UNDERSTAND LEACHING AT A DEEPER LEVEL

The Drain Gauge G3 is a passive-capillary lysimeter that determines the volume of water and chemicals draining from the root zone into groundwater. Once installed below the root zone, water samples are easily collected through the surface port for analysis of chemicals, fertilizers, and other contaminants. Not only is the Drain Gauge constructed from inert materials so it won't react with compounds collected in the sample reservoir, it also features a sealed design, which allows it to work in both saturated and unsaturated conditions.

FEATURES

- Completely sealed system protects from high water tables
- 6.1 cm drainage capacity allows for large sampling volumes
- Monitor solute fluxes with optional EC sensor
- Can be used with the optional AutoPump to automatically draw samples on remote or high drainage deployments

SPECS

Drainage	Range: 0–61 mm bottom of wick, 61–100 mm top of reservoir chambers Resolution: 0.2 mm Accuracy: ± 1.4 mm
Water Depth	Range: 0 - 10,000 mm Resolution: 1.0 mm Accuracy: $\pm 0.25\%$ of full scale at 20 °C NOTE: Depth measurement accuracy assumes no abrupt temperature variations.
Temperature	Range: -40 to +60 °C Resolution: 0.10 °C Accuracy: ± 1 °C NOTE: The pressure transducer may be damaged or destroyed if frozen in ice. Remove sensor if the water temperature could drop below 0 °C (32 °F).
Bulk Electrical Conductivity (EC)	Range: 0 – 120 dS/m Resolution: 0 dS/m Accuracy: ± 0.01 dS/m or $\pm 10\%$, whichever is greater NOTE: The EC measurement is corrected to a standard temperature of 25 °C.
Output	DDI Serial or SDI-12 communications protocol
Data Logger Compatibility	METER ZL6 data loggers and any data acquisition system capable of 4.0- to 15.0-VDC power and serial or SDI-12 communication
G3 Drain Gauge Dimensions	Mass: 20.0 kg (44.0 lb) with stainless steel DCT 14.0 kg (31.0 lb) with PVC DCT
DCT Dimensions	Length: 62.5 cm (24.6 in) Inner Diameter: 25.4 cm (10.0 in) Outer Diameter: 26.4 cm (10.4 in) Width: 3.3 cm (1.3 in)
Reservoir Dimensions	Length: 81.3 cm (32.0 in) Outer Diameter: 11.5 cm (4.5 in)
Access Tube Dimensions	Length: 180.0 cm (70.9 in) Outer Diameter: 6.0 cm (2.4 in) Material: Schedule 40 PVC
Sensor Dimensions	Length: 9.0 cm (3.5 in) Diameter: 3.4 cm (1.3 in)
Sampling Tube Dimensions	Length: 3.0 m (118.1 in) standard, custom lengths available Outer Diameter: 6.0 mm (0.24 in) Material: Polyethylene
Operating Temperature Range	Minimum: 0 °C Maximum: 60 °C NOTE: The pressure transducer may be damaged or destroyed if frozen in ice. Remove sensor if water temperature could drop below 0 °C (32 °F).
Cable Length	10.0 m (standard) 20.0 m 40.0 m (maximum)
Cable Diameter	6 mm (0.25 in) with a minimum jacket of 0.80 mm (0.031 in)
Connector Types	Stereo plug connector or stripped and tinned wires
Stereo Plug Connector Diameter	6 mm (0.24 in)
Conductor Gauge	20 AWG/21 AWG drain wire

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