



Virtual HERMIT® Aquifer Testing Kit

Streamline your next groundwater characterization event by renting the Virtual HERMIT Aquifer Testing Kit from In-Situ® Rentals. Use the kit to conduct step-drawdown and constant-rate pump tests and see results in real time.

Your rental will include Virtual HERMIT Software for PC; an eight-port Rugged TROLL® Net Hub; up to eight Level TROLL® 700 Instruments; one RuggedReader® Handheld PC to download data from difficult-to-access sites; and a USB or RS232 TROLL® Com Communications Device.

Simplifies Testing

- Monitors an entire well field with one system—Connects up to eight Level TROLL 700 Instruments (maximum of 15 when using multiple hubs)
- Simultaneously configures, starts, displays, steps, or stops all connected Level TROLL 700 Instruments
- Allows data downloads while a test is running
- Integrates BaroTROLL® Instrument for barometric pressure compensation. Use barometric pressure data to calculate barometric efficiency for confined/semi-confined systems (requires aquifer test analysis software).

Reduces Field Time

- Captures pump and recovery data on the same log without reprogramming
- Steps a logarithmic log as the test progresses
- Displays real-time data—Enables quick adjustments to aquifer test protocols
- Minimizes data processing—Exports one time-synchronized data log for all deployed Level TROLL 700 Instruments

Manages Unique Situations

- Collects data during aquifer recovery—Disconnect and secure laptop PC, Rugged TROLL Net Hub, and cables. Level TROLL 700 Instruments continue to log data while locked safely inside wells.
- Allows for data collection at difficult to reach sites. Instruments can be set up in wells prior to the test and set to start logging data at a pre-determined time. After recovery, data is downloaded and merged with other level data.

Applications

- Characterization of aquifers and flow system boundaries
- Environmental assessments of contaminated sites, groundwater development projects, and dewatering projects

Virtual HERMIT[®] Aquifer Testing Kit

Virtual HERMIT Software

- Maximum 15 Level TROLL[®] 700 Instruments when connecting two Rugged TROLL[®] Net Hubs
- All instruments within a “HERMIT” must be running the same log type
- Must configure logs with Virtual HERMIT Software
- Level TROLL 700 data logs are compatible with Win-Situ[®] 5, Win-Situ[®] Mobile, Win-Situ[®] Sync, and Win-Situ Baro Merge[™] Software.
- Minimum system requirements: 2 GHz Pentium[®] processor, 1 GB RAM, 100 MB free disk space, Windows XP Professional SP2 or higher, or Windows Vista SP1, or Windows 7 or higher, CD-ROM drive, and a USB or serial communications port

Rugged TROLL Net Hub

A low-power Rugged TROLL Net Hub can network up to eight Level TROLL 700 Instruments from In-Situ[®] Rentals.

- Field-ready case with eight bulkhead connectors
- Compatible with RuggedCable[®] System—Available in either Tefzel[®] or polyurethane with titanium twist-lock connectors

General	Rugged TROLL Net Hub
Enclosure	NEMA 4X/IP-67
Operational temperature	-40-60° C (-40-140° F), 95% relative humidity
Storage temperature	-40-85° C (-40-158° F), 95% relative humidity, non-condensing
Dimensions (WxHxD)	33 x 12.1 x 26 cm (13 x 4.75 x 10.25 in)
Weight	2.32 kg (5.1 lbs)
Power requirements	9-36 VDC (refer to instrument documentation for cable length and voltage limitations)
Current draw	20 μ A sleep mode (without instrument load) 60 mA wake mode (without instrument load)
Battery life	70 hours continuous life for two 9V batteries



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Level TROLL[®] 700 Instrument

General	Level TROLL 700
Temperature ranges ¹	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Calibrated: -5-50° C (23-122° F)
Diameter	1.83 cm (0.72 in)
Length	21.6 cm (8.5 in)
Weight	197 g (0.43 lbs)
Materials	Titanium body; Delrin [®] nose cone
Output options	Modbus/RS485, SDI-12, 4-20 mA
Battery type & life ²	3.6V lithium; 10 years or 2M readings
External power	8-36 VDC
Measurement current	4 mA
Sleep current	180 μ A
Memory	4.0 MB
Data records ³	260,000
Data logs	50
Fastest logging rate & Modbus rate	4 per second
Fastest SDI-12 & 4-20 mA output rate	1 per second
Log types	Linear, Fast Linear, Linear Average, Event, Step Linear, True Logarithmic
Sensor Type/Material	Piezoresistive; titanium
Range	<i>Absolute (non-vented)</i> 30 psia: 10.9 m (35.8 ft) 100 psia: 60.1 m (197.3 ft) 300 psia: 200.7 m (658.7 ft) 500 psia: 341.3 m (1120 ft) 1000 psia: 703 m (2306.4 ft) <i>Gauged (vented)</i> 5 psig: 3.5 m (11.5 ft) 15 psig: 11 m (35 ft) 30 psig: 21 m (69 ft) 100 psig: 70 m (231 ft) 300 psig: 211 m (692 ft) 500 psig: 351 m (1153 ft)
Burst pressure	Maximum 2x range; burst 3x range
Accuracy @ 15° C ⁴	\pm 0.05% FS
Accuracy (FS) ⁵	\pm 0.1% FS
Resolution	\pm 0.005% FS or better
Units of measure	Pressure: psi, kPa, bar, mbar, mmHg, inHg, cmH ₂ O, inH ₂ O Level: mm, cm, m, in, ft

¹ Temperature range for non-freezing liquids

² Typical battery life when used within the factory-calibrated temperature range

³ 1 data record = date/time plus 2 parameters logged (no wrapping) from device within the factory-calibrated temperature range.

⁴ Across factory-calibrated pressure range

⁵ Across factory-calibrated pressure and temperature ranges

Call to rent — www.in-situ.com

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1-970-498-1500 (international & domestic)

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