



(Serie 1100) - Medidor de nivel de agua con sondas de perfilado de pozos opcionales

- J Medidor de nivel de agua **premium**
- J Mide la **profundidad del agua con precisión**
- J Recopile fácilmente datos de **extracción** para calcular la producción del pozo
- J Capacidad de **sonda intercambiable**
 - o Sonda indicadora de **profundidad de pozo** compatible
 - o Sonda indicadora de **revestimiento de pozo** compatible
- J **El diseño modular** hace que las reparaciones sean económicas y fáciles



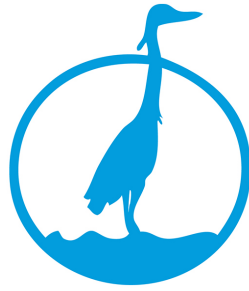
HERON
INSTRUMENTS INC.



dipper-T (Series 1100)

Static, drawDown, Well Casing & Well Depth Specifications

Reel Assembly:	Standard	Large	Double
Height	36cm (14")	43cm (17")	51cm (20")
Depth	21cm (9")	23cm (9")	51cm (20")
Width	29cm (11.5")	34cm (13.5")	37cm (14.5")
Weight (Reel Assembly Only)	2.6kg (5.7lb)	4.2kg (9.3lbs)	7.1kg (15.7lbs)
Plate Size	27cm (10.5")	34cm (13.5")	30cm (12")
Plate Material	Nylon Fibre Composite	Aluminum	Aluminum
Brake	Ergonomic Dial	Ergonomic Dial	Spring Loaded Pin
Stainless Ball Bearing	Yes	Yes	Yes
Hanger	Included on frame	Included on frame	No
Tape Guide	Included on frame	Included on frame	No
Test Points	On back of frame	On back of frame	Use Conductive Material
Tape Lengths	30m, 100ft	200m, 750ft	450m, 1500ft
	45m, 150ft	300m, 1000ft	600m, 2000ft
	60m, 200ft		+ 600m/2000ft
	100m, 300ft		Power Reel Available
	150m, 500ft		
Tape:		Electronic Panel:	
Tape	High Tensile Stainless Steel	Operating Mode	Static & drawDown
Jacketing	Polyethylene	Power Source	9 Volt Alkaline
Conductors	7 strand (4 S/S & 3 copper)	Sensitivity Control	S/S & Aluminum
Markings	Metric or Engineering Scale - Under Jacketing	Audio/Visual Indication	Ultra Bright LED & 80dbi Buzzer
Width	9.5mm (3/8")	Rating	IP65
Dog Bone Profile	Yes	Removable	Yes
Break Strength	127kg (280lbs)	Maximum Temperature	80°C
Probe:		Included & Optional:	
Weight	158g (.35lb)	Padded Carry Case	Included
Length	24.5cm (9.8")	Well Depth Indicator Probe	Optional
Diameter	16mm (5/8")	Well Casing Indicator Probe	Optional
Removable	Yes	Warranty:	5 Year (Probe 1 Year)
Depth Rating	IP68		
Break Strain	68kg (150lbs)		
Wetted Material	S/S, Buna, Nylon, ABS & Teflon, Polyurethane		



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dipper-T Water Level Meter

ONE UNIT-FOUR FUNCTIONS

Length options: 100ft/30m to 2000ft/600m | Warranty: 5 years, probe 1 year

The **dipper-T** water level meter can be conveniently converted to a multi-functional instrument not only able to measure static and falling head levels but also to determine the length of casing and well depth. The water level sensing probe can be easily removed at the link connection and substituted with either the optional Well Casing Indicator Probe* or Well Depth Indicator Probe* (see reverse). The **FOUR FUNCTION** capability of the **dipper-T** water level meter makes this unit an asset to groundwater professionals and rural property owners during the construction of new wells, maintaining wells or decommissioning abandoned wells.

- **Static Mode** – for measuring the depth of water in wells, boreholes and standpipes
- **drawDown Mode** – for measuring falling water levels during purging, well development and for low flow sampling

- **Well Casing** – to measure the depth of metal casing in wells and boreholes from two inches in diameter and upward
- **Well Depth** – to measure full depth in wells and boreholes

**Sold separately*



www.heroninstruments.com



Accessories for the dipper-T Water Level Meter

The Heron Well Casing Indicator Probe and the Well Depth Indicator Probe are ideal accessories for the dipper-T water level meter, making this unit multi-functional for all of your water level measuring needs. The dipper-T allows the user to change functionality from water level meter mode to well casing indicator or well depth indicator by simply changing the probe at the link connection.

Well Casing Indicator Probe

Part number: 1102 | Warranty: 1 year



The Well Casing Indicator Probe is used to measure the depth of metal casing in wells and boreholes from two inches in diameter and upward. The Well Casing Indicator Probe works using magnetism. While the probe sits within the magnetic field of the steel casing, an auditory and visual signal is active. When the probe leaves the magnetic field the signal stops. The well casing measurements are taken directly from the tape. Note: The datum point indicator is on the back of the probe holder.

Well Depth Indicator Probe

Part Number: 1101 | Warranty: 1 year




The Well Depth Indicator Probe (or bottom detector) is used to measure full depth in wells and boreholes. The Well Depth Indicator Probe uses a pressure sensitive plunger to measure the distance to the bottom of the well. When the Well Depth Indicator Probe reaches the bottom of the well, the plunger enters the probe body closing a switch, initiating an audible and visual signal at the top of the well. The well depth reading is taken directly from the tape.

Note: The datum point indicator is on the back of the probe holder.

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Please visit our website www.heroninstruments.com for more information on the complete Heron line.

 Made in Canada



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Ver todas las piezas de repuesto del dipper-T



Descripción

El medidor de nivel de agua **Dipper-T** es una herramienta excelente para perforadores de pozos, consultores e hidrogeólogos de todo el mundo. Este medidor de nivel de agua es ideal para profesionales que requieren las mediciones más precisas de los niveles de agua, así como la longitud del revestimiento del pozo y la profundidad total del pozo.

Nuestro **Dipper-T** premium está equipado con una cinta de acero amarilla revestida de polietileno, una sonda completamente sumergible y un estuche de transporte acolchado. Este medidor de nivel de agua se puede convertir convenientemente en un instrumento multifuncional no solo capaz de medir los



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niveles de carga estática y descendente, sino también de determinar la longitud de la tubería de revestimiento y la profundidad del pozo. La sonda de detección de nivel de agua se puede quitar fácilmente en la conexión de enlace y se puede sustituir por la sonda indicadora de revestimiento de pozo opcional o la sonda indicadora de profundidad de pozo.

La capacidad de función múltiple del medidor de nivel de agua **Dipper-T** hace que esta unidad sea un activo para los profesionales del agua subterránea y los propietarios de propiedades rurales durante la construcción de nuevos pozos, el mantenimiento de pozos o el desmantelamiento de pozos abandonados. Disponible en su elección de escala métrica o de ingeniería.

Incluido:

-) Cinta recubierta de polietileno de acero inoxidable de primera calidad
-) Sonda de nivel de agua de 5/8 "(15,9 mm) (IP68) con soporte
-) Panel electrónico con señales de audio y visuales (totalmente encapsulado a IP65)
-) Dial de sensibilidad para desconectar el agua en cascada
-) Vinilo, agarre de sujeción ergonómico
-) Batería de 9V
-) Estuche acolchado para almacenamiento / transporte

Sonda indicadora de revestimiento de pozo



La sonda indicadora de revestimiento de pozo se utiliza para medir la profundidad del revestimiento de metal en pozos y perforaciones desde dos pulgadas de diámetro y hacia arriba. La sonda indicadora de carcasa de pozo funciona mediante magnetismo. Mientras la sonda se encuentra dentro del campo magnético de la carcasa de acero, se activa una señal auditiva y visual. Cuando la



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sonda abandona el campo magnético, la señal se detiene. Las medidas del revestimiento del pozo se toman directamente de la cinta.

Sonda indicadora de profundidad de pozo

La sonda indicadora de profundidad de pozo (o detector de fondo) se utiliza para medir la profundidad total en pozos y perforaciones. La sonda indicadora de profundidad de pozo utiliza un émbolo sensible a la presión para medir la distancia hasta el fondo del pozo. Cuando la sonda indicadora de profundidad del pozo llega al fondo del pozo, el émbolo ingresa al cuerpo de la sonda cerrando un interruptor, iniciando una señal audible y visual en la parte superior del pozo. La lectura de la profundidad del pozo se toma directamente de la cinta.

Mas información precio y detalles en

<https://www.dog.cl/paginaNueva/index.php?act=list&idFam=25&idSubFam=54>

Video <https://youtu.be/RYY2H0ZHEso>





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IMPORTANT: ENSURE THAT THE PANEL RETAINING THUMB SCREWS (NUTS) ARE TIGHT BEFORE USE.

To Test the Entire System: **Make sure sensitivity dial is turned fully clockwise.** Touch the probe tip to the standoff. screw and probe tip to the stud (on axle) at the same time. The buzzer will sound if the system is okay.



Figure 2



Figure 1

Item	Part Numbers
drawDown Electronic Panel (1.5m/50ft-1.50m/500ft)	1408-1
drawDown Electronic Panel (1.80m/600ft-300m/1000ft)	1408-2
Detachable dD-T probe	1403
Thumb Screws Set (2)	3250
Well Depth Indicator Probe (optional)	1502
Well Casing Indicator Probe (optional)	1503



Figure 5 Well Casing Indicator Probe



Figure 4 Well Depth Indicator Probe



Figure 3
Hanger to support the meter at the well head.
Tape Guide to protect the tape from sharp edges.

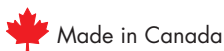
HERON ALSO MANUFACTURES:

- Water Level Meters
- Data Loggers
- Interface Meters
- Conductivity Meters
- Temperature Meters
- Well Casing Indicators
- Well Depth Indicators
- Tag Lines
- Borehole Inspection Cameras

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dipper-T

Four Function Water Level Meter

Operating and Maintenance Instructions



www.heroninstruments.com



dipper-T Water Level Meter Instructions

General Care of the dipper-T

The **dipper-T** is a high quality, robust, premium water level meter capable of **Four Functions** – **static** and **drawDown** levels, **well casing*** and **well depth*** indications (*optional probe required). The **dipper-T** will provide many years of reliable service when these recommendations are followed:

- Avoid sharp edged casing, use the tape guide on the unit to prevent damage to the tape.
- Take care to avoid the tape becoming entangled with other equipment in boreholes or wells, use stilling pipes when possible.
- Neatly rewind and clean the tape after each use. Refer to: **Cleaning the dipper-T**

DO NOT use the **dipper-T** as a guide to backfilling, bentonite sealing or sand packing in wells. This type of material falls through the water column at a much slower rate than the **dipper-T** probe and can result in a trapped tape and probe.

DO NOT allow the tape to “freefall” down the well, it may become caught in other equipment in the well.

Warranty is conditional upon adherence to these guidelines.

Equipment Check

Before taking the unit into the field, carry out these simple tests with the sensitivity knob turned fully clockwise (see Figure 1), and the two panel retaining thumb screws (nuts) tight.

- Insert battery drawer (battery included) into the battery compartment on the electronic panel. Note polarity.
- Check the condition of battery and circuit by pressing the **Change Mode** button from **static** to **drawDown**. The unit will sound and the indicator light will come on when the probe is in air. If the unit does not respond, replace battery and try again.
- Test the entire unit by placing the probe in tap water or touching the probe body to the standoff screw and probe tip to the stud (on axle) as shown in Figure 2. If the **dipper-T** is working properly, the unit will sound as above.

DO NOT test in distilled water.

Use in Field

The **dipper-T** operates in two modes, **static** and **drawDown**. In **static** mode, the unit is silent until the probe touches the water. In **drawDown** mode, the unit sounds and the light remains on when the probe is **not** in water.

NOTE: There is no on/off switch on the instrument. If using in **drawDown** mode, return the unit to **static** mode to turn indicators off. The **dipper-T** consumes no power in **static** mode when probe is not in water.

- To avoid damaging the tape on the side of the casing, hang the **dipper-T** on the casing and run the tape over the guide on the frame leg. If you cannot hang the unit, hold the **dipper-T** away from the side of the casing and guide the tape down the center of the well.
- Swivel the **probe holder** on the frame to allow the tape free movement down the well (see Figure 3).
- Note the inverted triangle on the probe holder serves as a datum point indicating “top of casing” (see Figure 3).
- The **sensitivity knob** (see Figure 1) is used to maintain a sharp distinctive signal by adjusting the unit’s response to varying conductivities. Turn the knob clockwise for low conductivity (pure) water and counter-clockwise for high conductivity (dissolved minerals) water. In wells that have cascading water that may give false readings, reduce the sensitivity by turning the sensitivity knob counter-clockwise.
- Reel the tape down the well carefully avoiding the edge of the casing.

FOR STATIC MODE

- When the unit sounds (in **static** mode) carefully measure the depth to water indicated on the tape from your datum point (inverted triangle).
- Raise and lower the probe in and out of the water to ensure a consistent result.

FOR DRAWDOWN MODE

- When the probe is in water at the desired **drawDown** level, push the **Change Mode** button to **drawDown** mode, (see Figure 1) the unit will now be silent in water and start pumping the water out. Once the water goes past the tip of the probe, the unit will sound in air.
- Turn off pump and put the **dipper-T** back in **static** mode.

**WATCH THE VIDEO ON “HOW THE DRAWDOWN FEATURE WORKS”
FOUND ON HERON INSTRUMENTS’ YOUTUBE CHANNEL.**

FOR WELL DEPTH MEASURING

- Remove the water level meter probe from the detachable link and replace with the **Well Depth Indicator Probe**. Make sure the connection is tight but do not over tighten (see Figure 4).
- While the **dipper-T** is in **static** level mode, lower the probe down the side of the casing (use the tape guide to protect the tape from sharp edges), avoid hitting other objects within the well. When the probe reaches the bottom of the well, the pressure sensitive

plunger enters the probe body closing a switch, initiating an audible and visual signal at the top of the well. The well depth reading is taken directly from the tape. The datum point indicator is on the back of the probe holder (see Figure 3).

FOR WELL CASING MEASURING

- Remove the water level meter probe from the detachable link and replace with **Well Casing Indicator Probe**. Make sure the connection is tight but do not over tighten (see Figure 5).
- While the **dipper-T** is in **static** level mode, lower the probe down the side of the steel casing in the well (use the tape guide to protect the tape from sharp edges). While the probe is within the magnetic field of the steel casing, an auditory and visual signal is active. When the probe leaves the magnetic field the signal stops, indicating the bottom of the steel casing. The well casing measurement is then taken directly from the tape. The datum point indicator is on the back of the probe holder (see Figure 3).
- **NOTE:** The unit may not signal fully in wells with deteriorating steel casing.

When rewinding the tape, remove as much water and debris as possible from the tape and the probe.

Cleaning the dipper-T

Always clean the **dipper-T** after use in the field to maintain optimal performance and extend the life of the unit.

The **dipper-T** may be cleaned with any **mild** household dishwashing detergent and rinsed with water.

If the electronic panel is removed first, the reel and tape can be washed gently with a power washer. Remove the thumb screws (nuts) (see Figure 1) to release the panel. Take care not to lose the thumb screws as the unit will not work without them.

DO NOT use abrasives, partially halogenated hydrocarbons or ketones to clean the reel.

Troubleshooting the dipper-T

- Q. What if there is no sound or indicator light when the unit is tested?**
A. Refer to **Equipment Check** and follow procedures. Change the battery if necessary.
- Q. Why doesn’t the unit sound when testing the probe?**
A. There may be a lack of connection from the back of the electronic panel, down the tape to the probe. Tighten the panel retaining thumb screws (nuts) on the electronic panel to complete contact.
- Q. After tightening the thumb screws, the probe is still not working. How can I fix this problem?**
A. Carry out full continuity test, shown in Figure 2.
- Q. What should I do if the unit does not sound in static mode (probe in air)?**
A. Adjust the sensitivity setting. If the unit still does not work check all the connections inside the hub (inside the hub polarity is not an issue as the current is AC).
- Q. Why would the instrument continue to sound when not in water?**
A. The unit may be in **drawDown** mode. Press the **Change Mode** button, putting the unit into **static** mode (silent in air). Dry the probe with a clean cloth.
- Q. Why is the Well Casing Indicator Probe giving false readings?**
A. False readings may indicate that the well casing has deteriorated causing the probe not to pick up the magnetic field of the steel casing. The well casing may have holes, be rusty and/or have a material buildup.

Contact Heron Instruments or your Heron Distributor if you cannot isolate the problem.

Warranty (5 years, probe 1 year)

Heron Instruments Inc. warrants to repair or replace any defective equipment or part upon inspection by a **Heron** service technician. Warranty will be determined to our satisfaction to have a defect in workmanship or original material. The customer is responsible for all shipping fees to return the item to **Heron**.

This warranty shall not apply to damage of equipment caused by improper installation, usage, storage, alteration or inadequate care.

In no event shall **Heron** be held liable for any direct, indirect or consequential damages, abuse, acts of third parties (rental equipment), environmental conditions or expenses which may arise in connection with such defective equipment.

Heron Instruments Warranty coverage does not extend to the following:

- Tape, bag or batteries used with the product.
- Products used as rental equipment.
- Products contaminated by materials which are known to be hazardous and have rendered the unit unserviceable.
- Parts failure due to neglect in cleaning or servicing.
- Failure of parts caused by misuse.

For service information:

- visit www.heroninstruments.com under the **CONTACT** heading
- email service@heroninstruments.com
- call 1-800-331-2032 or 905-628-4999

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TÜV SÜD Canada Inc.

EMC / EMI Test Report

As per

IEC 61326-1:2012 / EN 61326-1:2013

**Emissions & Immunity for
Measurement, Control, and Laboratory Use
Electrical Equipment**

on the

Dipper-T & Power Reel

(incl. Dipper Tag, Skinny Dipper, Water Tape, Little Dipper)



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Testing produced for



See Appendix A for full client & EUT details.

