



Solinst®

Well Casing & Depth Indicator

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Model 105 Data Sheet

Well Casing & Depth Indicator

Model 105

Simple and durable, the Well Casing & Depth Indicator is easy to use when detecting metal well casing or measuring total well depth. It offers both of these functions without having to switch out the probe.

The Well Casing & Depth Indicator is useful when determining where metal casing starts and ends in new or existing well constructions, hydrofracturing, and installing packers or other downhole instruments.

The 105 Well Casing & Depth Indicator uses a dual-function stainless steel probe connected to clearly marked flat tape, fitted on a well-balanced reel.

Well Casing & Depth Indicator Operation

The probe has a strong internal magnetic assembly to detect well casing. When the probe is adjacent to magnetic metal (e.g. steel) a circuit is completed activating the buzzer and light (quick intermittent beeps and flashing red light). When the probe is no longer next to the casing, the signals stop. Depths are read from the tape at surface.

A plunger at the bottom of the probe is used to measure total well depth. The light and buzzer activate when the plunger reaches the bottom of a well and is pushed into the probe body completing a magnetic circuit (slow intermittent beeps and flashing red light). The depth is read from the tape.

The convenient battery test button checks the main circuitry to determine when the battery needs replacing. For easy-access, the battery is housed in a drawer in the front of the faceplate.



Well Casing & Depth Indicator Features

- One probe for both well casing depth indication and total well depth measurement
- Uses non-stretch, accurately laser marked flat tape
- Tape lengths up to 600 m (2000 ft)
- Replacement tapes are interchangeable with other Meters
- Rugged design with 3 year warranty

Well Casing & Depth Indicator Applications

- Measuring total well depth
- Groundwater well installation
- Detecting gaps in well casing
- Installing telescoping well screen
- Packer and downhole instrument installation
- Hydrofracturing
- Confirming existing well construction
- Decommissioning abandoned wells

Well Casing & Depth Indicator Specifications

Operating temperature of reel:	-20°C to +50°C
Submerged operating temperature (tape/probe):	-20°C to +80°C
Wetted materials (tape/probe):	PVDF, Santoprene, Delrin®, Viton®, 316 stainless steel
Probe pressure rating:	Fully submersible to depth of all tape lengths
Probe weight:	~280 g (10 ounces)
Probe size:	22 mm dia., 193 mm long (7/8" x 7.6")
Measurements:	±0.06 m (0.2 ft)
Reel IP rating:	IP64 (dust and splash proof)
Power:	Standard 9V alkaline battery



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Laser Marked Flat Tape

The 105 Well Casing & Depth Indicator uses corrosion and chemical-resistant flat tape. The tape is non-stretch and high in tensile strength to support the heavier 105 Probe. The thick dog bone design prevents adherence to wet surfaces and allows the tape to hang straight. It is also easy to repair and splice. The 10 mm (3/8") tape comes with permanent laser markings each millimeter or every 1/100 ft in lengths up to 600 m (2000 ft).

LM2: Feet and tenths: with markings every 1/100 ft.

LM3: Meters and centimeters: with markings every mm



Tape accuracy meets NIST and EU measurement standards.

Well Casing & Depth Indicator Probe

The 105 Probe is made from 316 stainless steel and is submersible the full length of the tape. It contains a strong internal magnetic assembly to detect metal casing and a plunger assembly to measure total well depth. The tape seal plug design allows the probe to be quickly and easily replaced if required.



Well Casing & Depth Indicator Probe

Other Options



Power Winder

Power Winder: Lightweight and easy to attach to small, medium and large reel frames of the Model 105 Well Casing & Depth Indicator, the Power Winder is designed to allow effortless winding of longer lengths of tape. Simply uses a standard power drill to operate (see 101 Power Winder Data Sheet).

Carrying Case: An optional padded nylon carrying bag with a shoulder strap is available to fit medium and small reels. The sturdy bags have a zippered top and front pocket and a vent in the base to allow moisture to dissipate. They provide protection during transport as well as handling convenience.

Replacement Parts: Replacement probes, tapes, faceplates and other spare parts are available.

Standard Length Options

The Solinst 105 Well Casing & Depth Indicator is available in the following standard lengths:

Small Reel	30 m	100 ft	Medium Reel	150 m	500 ft
	60 m	200 ft		250 m	750 ft
	100 m	300 ft		300 m	1000 ft
			Large Reel	400 m	1250 ft
				500 m	1650 ft
				600 m	2000 ft

Well Casing & Depth Indicator Reels

With a well-balanced frame, convenient carrying handle, and handy probe holder, the standard reels are ergonomic and easy to use. They are rugged and smooth running. The battery is housed in an easy-access drawer in the front of the reel for quick replacement. The reels are equipped with an on/off switch, light, buzzer, battery test button, brake and a tape guide stored on the frame.

Tape Guide/Datum

A tape guide is provided which fits over the top of the well casing to protect the tape from damage and to provide an accurate measurement point. It ensures easy, consistent measurements regardless of who takes readings. It can also provide support for hanging small reels on the casing.



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