



# Leica DD220 & DD230 Smart Utility Locators Solution



The new Leica DD SMART utility locator solution, including the DD230/220 cable locator series, DX Shield software and signal transmitters is the only complete portfolio of detection solutions for utility professionals and anyone who is breaking ground. The Leica DD SMART utility locator series uses industry-leading digital signal processing to identify underground assets deeper, faster and more accurately than any other system.

Using smart technology, the Leica DD SMART series can record all site usage activities enabling managed safety regimes to flourish. Mapping buried utilities and protecting your assets, buried utilities has never been simpler with the onboard software. Transfer user logs and data via a hosted service for multiple users, across multiple sites promote smart activities and smart safety.

The DD230/220 SMART locators are scalable and designed with the latest Bluetooth technology, providing a wire-free connection to mobile devices

## Technical Specification

	Part Number	Description
Mode	DD220 SMART	DD230 SMART
	50/60Hz mains electrical and harmonics	50/60 Hz mains electrical and harmonics
Radio	15kHz to 60kHz	15kHz to 60kHz
Auto	Power, Radio, 33kHz	Power, Radio, 33kHz
Transmitter Modes	131.072 (131) kHz 32.768 (33) kHz 8.192 (8) kHz	131.072 (131) kHz 32.768 (33) kHz 8.192 (8) kHz 512 Hz 640 Hz
Depth Range	Line 0.1m to 5m Line 4 inches to 16.4 feet Sonde 0.1m to 7m Sonde 4 inches to 23 feet	Line 0.1m to 7m 4 inches to 23 feet Sonde 0.1 to 10m Sonde 4 inches to 32.8 feet
Depth Accuracy*	5%	5%
Bluetooth	Class 2 BLE dual mode module Bluetooth Classic 2.1 Bluetooth 4.0 (LE)	Class 2 BLE dual mode module Bluetooth Classic 2.1 Bluetooth 4.0 (LE)
GPS	Chipset <sup>(1)</sup> : u-blox®GPS Receiver Type: GPS L1C/A, SBAS L1C/A, QZSS L1C/A, GLONASS L1OF, BeiDou B1 Accuracy <sup>(2)</sup> : Horizontal Position 2.5 m Autonomous, 2.0 m SBAS, CEP Start time: Cold 45 s typical, Aided 7 s typical, Hot 1 s typical	Chipset <sup>(1)</sup> : u-blox®GPS Receiver Type: GPS L1C/A, SBAS L1C/A, QZSS L1C/A, GLONASS L1OF, BeiDou B1 Accuracy <sup>(2)</sup> : Horizontal Position 2.5 m Autonomous, 2.0 m SBAS, CEP Start time: Cold 45 s typical, Aided 7 s typical, Hot 1 s typical
Memory Capacity	8 GB internal memory	8 GB internal memory
Environmental Standard	IP66	IP66

Operating Temperature	-20°C to +50°C	-20°C to +50°C
Battery	7.4V Rechargeable Li – Ion	7.4V Rechargeable Li – Ion
Battery operating time***	15 h	15 h
Dimensions (HxWxD)	765 x 290 x 93mm	765 x 290 x 93mm
Weight with batteries	2.7kg	2.7kg

\* Depth to an undistorted signal

(1) All data/information according to manufacturer u-blox@GPS; Leica Geosystems does not assume any liability whatsoever for such information.

(2) Accuracy is dependent upon various factors including atmospheric conditions, multipath, obstructions, signal geometry and number of tracked satellites.

\*\*\* Constant use at 20°C

## Transmitters

### Technical Specification



Mode	DA220	DA230
Induction Mode Frequencies	32.768 (33) kHz / 8.192 (8) kHz	32.768 (33) kHz / 8.192 (8) kHz
Power Output	Up to 1 Watt max	Up to 1 Watt max
Direct Connection Mode Frequencies	131.072 (131) kHz / 32.768 (33) kHz / 8.192 (8) kHz	131.072 (131) kHz / 32.768 (33) kHz / 8.192 (8) kHz / 512 Hz / 640 Hz
Power Output*		
1 Watt Model	Up to 1 Watt max.	Up to 1 Watt max.
3 Watt Mode	Up to 3 Watt max	Up to 3 Watt max
Environmental Standard	IP67	IP67
Operating Temperature	-20 °C to +50 °C	-20 °C to +50 °C
Storage temperature	-40°C to +70°C	-40°C to +70°C
Battery	7.4V Rechargeable Li-ion	7.4V Rechargeable Li-ion
Battery operating time**	15 h	15 h
Dimensions (HxWxD)	250 x 206 x 113 mm	250 x 206 x 113 mm
Weight with batteries	2.38kg	2.38kg

\* Utility impedance of 300 Ohms

\*\* Defined at 20°C power level 2

## Packing List

### Leica Detect DD220 Smart package



- 1 x DD220 Smart utility locator,
- 1 x DA220 1 Watt Signal Transmitter,
- 1 x System carry bag.
- Li-Ion battery packs & chargers for the Locator and Signal Transmitter.

### Leica Detect DD230 Smart package



- 1 x DD230 Smart utility locator
- 1 x DA230
- 1 Watt Signal Transmitter
- 1 x System carry bag
- Li-Ion battery packs & chargers for the Locator and Signal Transmitter.

## Accessories

**Trace Rods**

Used with the DD Locators and DA Signal Transmitter to trace the route of non metallic drains, ducts or pipes. Trace Rod 50M / Trace Rod 80M



**Transmitter Clamps**

Used with the DA Signal transmitter to apply a trace signal to utilities such as telecom cables, power cables and pipes. Transmitter Clamp 100mm (4") / Transmitter Clamp 80mm



**Property Plug Connector**

The set provides a safe way of applying a detectable signal to live electricity cables going in a domestic property. To be used in conjunction with a DIGITEX signal transmitter.



**Mini Sonde 33**

Mini Sonde 33, 18mm diameter 33kHz Sonde used to trace drains, sewers and other non-conductive utilities. Mini Sonde has a M12 female thread and can be attached to a range of equipment including drain rods, boring tools and inspection cameras. Powered by 1 x 3.6v battery, with a depth range of 10 meters



**Midi Sonde 8/33**

Midi Sonde 8/33, 38mm diameter dual frequency 8kHz or 33kHz Sonde used to trace drains, sewers and other non conductive utilities. Midi Sonde has a M10 male thread with an additional female adapter and can be attached to a range of equipment including drain rods, boring tools and inspection cameras. Powered by 1 x AA alkaline battery, with a working depth range of 5 meters



**Maxi Sonde 8/33**

Maxi Sonde 8/33, 55mm diameter dual frequency 8kHz or 33kHz Sonde used to trace deep lying drains, sewers and other non conductive utilities. Maxi Sonde has a M10 male thread with an additional female adapter and can be attached to a range of equipment including drain rods, boring tools, and inspection cameras. Powered by 3 x AA alkaline batteries, with a depth range of 12 meters



**Duct Sonde 33**

24mm diameter with a 33kHz output. Working Range 5m



**Clamp Sonde 33**

Clamp Sonde 33, 40mm 33kHz Sonde. Clamps directly on to 12mm duct rod or the cable of a sewer inspection camera. Used to trace the route of the duct, position of the inspection camera or a blockage. Powered by 1 x AAA battery. with a working depth range of 5 meters



**Video**



**YouTube Video - Leica DD SMART Utility Locators Solution**  
(Click on the image to the left to view the video)

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