RADIODETECTION®

# RD8100® locator specification

Precision locators


SPX®

# RD8100 Locator Specification

## 1. Product Summary

| | |
|---|---|
| **1.1 Product Descriptions:** | Multi-purpose Precision Locator<br>Cable and Pipe Locator<br>Locate System Receiver<br>Multi-function Precision Locator |
| **1.2 Intended Use:** | Locating the position / path of buried pipes and cables<br>Detecting and pinpointing insulation faults on buried pipes and cables<br>Creating survey records of buried pipes and cable locations |
| **1.3 Standard Equipment:** | Locator<br>Quickstart guide<br>Mini USB 2.0 compliant data cable |

## 2. Performance

| | |
|---|---|
| **2.1 Sensitivity:** | 6E-15 Tesla<br>5µA at 1 meter (33kHz) |
| **2.2 Dynamic range:** | 140dB rms/√Hz |
| **2.3 Selectivity:** | 120dB/Hz |
| **2.4 Depth measurement precision[1]:** | ± 3% |
| **2.5 Locate accuracy:** | ± 5% of depth |
| **2.6 Active Locate filter bandwidth:** | ± 3Hz, 0 < 1kHz<br>± 10Hz, ≥ 1kHz |
| **2.7 Start-up time:** | <1 second |
| **2.8 Maximum depth readout[2]:** | Metric: Cable / Pipe: 30m Sonde: 19.5m<br>Imperial: Cable / Pipe: 98' Sonde: 64' |

## 3. Locate Functions

| | |
|---|---|
| **3.1 Active Locate Modes:** | Five:<br>▪ Peak<br>▪ Peak+™ (choice of combined Peak & Guidance or Peak & Null)<br>▪ Guidance<br>▪ Broad Peak™<br>▪ Null |
| **3.2 Gain control** | Guidance Mode: Automatic<br>Other modes: Manual gain using "+" or "-" with one touch to return to center (50% of Full Scale) |
| **3.3 Custom locate frequencies** | Up to 5 additional frequencies in the range 50Hz to 1kHz at 1Hz resolution |

**3.4 Active locate frequencies:**

Up to 24:

| RD8100 MODEL | PXL | PXLG | PDL | PDLG | PTL | PTLG |
|---|---|---|---|---|---|---|
| Custom frequencies | 5 | 5 | 5 | 5 | 5 | 5 |
| ELF (98/128Hz) | | | ● | ● | ● | ● |
| 512Hz | | | ● | ● | ● | ● |
| 570Hz | | | ● | ● | ● | ● |
| 577Hz | ● | ● | ● | ● | ● | ● |
| 640Hz | ● | ● | ● | ● | ● | ● |
| 760Hz | | | ● | ● | ● | ● |
| 870Hz | ● | ● | ● | ● | ● | ● |
| 920Hz | | | ● | ● | | |
| 940Hz | ● | ● | ● | ● | ● | ● |
| 1090Hz | | | | | ● | ● |
| 1450Hz | | | | | ● | ● |
| 4kHz (4096Hz) | ● | ● | | | | |
| 8kHz (8192Hz) | ● | ● | ● | ● | ● | ● |
| 8440Hz | | | | | ● | ● |
| 9.8kHz (9820Hz) | | | ● | ● | ● | ● |
| 33kHz (32768Hz) | ● | ● | ● | ● | ● | ● |
| 65kHz (65536Hz) | ● | ● | ● | ● | ● | ● |
| 82kHz (82000Hz) | | | | | ● | ● |
| 83kHz (83077Hz) | ● | ● | ● | ● | ● | ● |
| 131kHz (131072Hz) | ● | ● | ● | ● | ● | ● |
| 200kHz (200000Hz) | ● | ● | ● | ● | ● | ● |

**3.5 Sonde Frequencies:**

All models: Four
- 512Hz
- 640Hz
- 8kHz (8192Hz)
- 33kHz (32768Hz)

**3.6 Fault Find:**

*Locate insulation sheath faults on pipes and cables to 10cm / 4" accuracy using the accessory A-Frame and a compatible transmitter*

| RD8100 MODEL | PXL | PXLG | PDL | PDLG | PTL | PTLG |
|---|---|---|---|---|---|---|
| 8kHz Fault Find | | | ● | ● | ● | ● |
| CD Fault Find | | | ● | ● | ● | ● |

**3.7 Current Direction™ (CD) Signal Pairs:**

*Confirm operator is following the target pipe or cable with CD arrows and a compatible transmitter*

| RD8100 MODEL | PXL | PXLG | PDL | PDLG | PTL | PTLG |
|---|---|---|---|---|---|---|
| 219.9Hz / 439.8Hz | | | | | ● | ● |
| 256Hz / 512Hz | | | ● | ● | ● | ● |
| 280Hz / 560Hz | | | | | ● | ● |
| 285Hz / 570Hz | | | ● | ● | ● | ● |
| 320Hz / 640Hz | | | ● | ● | ● | ● |
| 380Hz / 760Hz | | | ● | ● | ● | ● |
| 460Hz / 920Hz | | | ● | ● | | |
| 680Hz / 340Hz | | | | | ● | ● |
| 800Hz / 400Hz | | | | | ● | ● |
| 920Hz / 460Hz | | | | | ● | ● |
| 968Hz / 484Hz | | | | | ● | ● |
| 1168Hz / 584Hz | | | | | ● | ● |
| 1248Hz / 624Hz | | | | | ● | ● |
| 4096Hz / 8192Hz 4kCD | | | ● | ● | ● | ● |

**3.8 Passive Locate Modes:**

| RD8100 MODEL | PXL | PXLG | PDL | PDLG | PTL | PTLG |
|---|---|---|---|---|---|---|
| Power | ● | ● | ● | ● | ● | ● |
| Radio | ● | ● | ● | ● | ● | ● |
| CPS (Cathodic Protection System) | | | ● | ● | ● | ● |
| CATV (Cable TV) | | | ● | ● | ● | ● |
| Passive Avoidance (Combined Power + Radio) | | | ● | ● | ● | ● |

**3.9 Power Filters™ function:**

Switch out of sensitive Power Mode to locate on any of 5 individual mains harmonic frequencies:

| HARMONIC | 50 Hz regions | 60 Hz regions |
|---|---|---|
| Primary | 50 Hz | 60 Hz |
| 3rd | 150 Hz | 180 Hz |
| 5th | 250 Hz | 300 Hz |
| 7th | 350 Hz | 420 Hz |
| 9th | 450 Hz | 540 Hz |

**3.10 Information displayed:**

- Signal strength - moving bar graph and numeric value
- Mode indication
  (Peak, Null, Guidance, Broad Peak, Peak+ with option of Guidance arrows or Null arrows)
- Line or Sonde locate type
- Proportional left/right indication
- Compass: full 360° line direction indicator
- Accessories in use indication
- Accessory specific custom screen
- Depth and current readout (Line location)
- Depth readout (Sonde location)
- Gain level (in dB)
- Frequency selected
- Battery condition
- Speaker volume
- Operating frequency
- Bluetooth status
- GPS satellites in view (where fitted)
- GPS status (where fitted)
- Configuration menu and submenus
- Software version
- Last calibration date
- Survey measurement counter
- Current Direction mode indicator
- Current Direction arrows
- Fault Find mode indicator
- Transmitter communication status
- Transmitter standby status
- Strike*Alert*™ warning
- Overload warning

**3.11 Audio output tones:**

**Power / Passive Avoidance / Radio modes:**
Real Sound™ derived from detected electromagnetic signal

**Peak / Peak+ modes and CPS / CATV modes:**
Synthesized audio tone proportional to signal strength

**Guidance mode:**
Continuous tone when locator is to the left of target, intermittent tone when to the right of target

**Null mode:**
Synthesized Audio tone proportional to signal strength. Low pitch to left of target, high pitch to right of target

**Strike*Alert* audio warning:**
Audio feedback for menu navigation

**3.12 Accessory locate functions:**

**Locator clamps:** Used to identify individual target cable(s) in a bundle or cabinet using signal strength read-out

**Stethoscopes:** Used to identify individual target cable(s) in a bundle or confined space such as a cabinet using signal strength read-out

**CD / CM clamp:** Used to measure locate current and to confirm target cable using Current Direction

# 4. Locate Function Enhancements

| | |
|---|---|
| 4.1 Strike*Alert*: | Audio and visual warning when a cable or pipe less than 30cm deep is detected. Operates in Active and Passive locating modes |
| 4.2 Dynamic Overload Protection™: | 40dB, automatic<br>▪ Automatically manages the system gain to compensate for strong signals e.g. from mains power or substations, to enable accurate locating |
| 4.3 Current Direction™ (CD): | ▪ Measures the direction of current flowing in buried pipes or cables to ensure that an operator is able to identify and follow the target utility<br>▪ Provides operator with arrows indicating the direction of current flowing in the located pipe or cable to confirm that they are following the target utility |
| 4.4 iLOC™: | Metric: Remote transmitter control from up to 450m away[3]<br>Imperial: Remote transmitter control from up to 1400' away[3]<br>Control transmitter frequency, power level and SideStep |
| 4.5 SideStep™: | Enables locating where other signals are interfering, and without compromising the optimum locate frequency<br>Remotely shifts the locate and transmitter frequency by several Hz, out of the bandwidth of other locate signals that may be interfering with the locate |
| 4.6 Simultaneous depth and current readout: | Both utility depth and locate signal current are displayed simultaneously, giving the operator more information to help them to follow the target utility |
| 4.7 Survey Measurements: | Store up to 1,000 survey points within the locator, and append GPS data from internal GPS (if fitted) or external GNSS sources over Bluetooth®<br>Export data immediately or as a batch over Bluetooth |
| 4.8 Fault Find: | Apply a Fault Find signal with a Tx-5 and Tx-10 transmitter, then use an accessory A-Frame to detect and pinpoint insulation faults<br>Fault find accuracy:<br>Metric: 100mm<br>Imperial: 4" |
| 4.9 4kHz locate frequency and 4kHz CD: | Designed for tracing higher impedance lines such as twisted pair telecoms or street lighting over distance<br>Combine with Current Direction to help trace the target utility through dense or complex infrastructure |
| 4.10 Peak+ mode: | Use the accurate Peak bargraph, and add either proportional Guidance arrows for faster locating, or Null arrows to check for the presence of distortion |
| 4.11 Integrated GPS option: | Faster surveying using integrated GPS – no need for a separate hand-held device |

# 5. Configurability

| | |
|---|---|
| 5.1 Option selection: | All options can be enabled or disabled on the locator or using the RD Manager PC software |
| 5.2 Languages supported: | Fourteen: English, French, German, Dutch, Polish, Czech, Slovakian, Spanish, Portuguese, Swedish, Italian, Turkish, Russian, Hungarian |
| 5.3 Mains power network options: | 50 Hz or 60 Hz |
| 5.4 Mode selection: | All locate modes with the exception of Peak Mode can be individually enabled or disabled |
| 5.5 Active frequency selection: | All active frequencies available can be individually enabled or disabled |
| 5.6 Passive mode selection: | All passive modes can be individually enabled or disabled |
| 5.7 Strike*Alert*: | Enable / disable |
| 5.8 Peak+ arrow selection: | Guidance arrows or Null arrows<br>Selected using the locator menu or with a long press of the antenna key |
| 5.9 GNSS ('GPS') settings: | Internal / External (connect over Bluetooth) / Off / Reset<br>SBAS On / Off |
| 5.10 Bluetooth: | On / Off |
| 5.11 Data export protocols supported: | PPP / choice of 3 ASCII formats. Optionally append positional data |
| 5.12 Time / date setting: | Correct or update locator real-time clock using the RD Manager PC software or GNSS signals |
| 5.13 CD Reset: | Reset CD phase analysis with a single long press of the frequency key |

# 6. Connectivity

| | |
|---|---|
| **6.1 Wireless connections:** | **Bluetooth class 1** |
| **6.2 iLOC™ remote transmitter control range[3]:** | **Metric: Up to 450m**<br>**Imperial: Up to 1400'** |
| **6.3 iLOC remote transmitter control functions:** | **Set transmitter frequency**<br>**Set transmitter power output level**<br>**Transmitter standby**<br>**SideStep** |
| **6.4 Wired connections** | **Mini-USB:** Connect to a PC to configure and update locator, and to retrieve usage log and survey measurement data<br>**3.5mm Stereo jack:** Connect wired headphones<br>**Accessory port:** Connect Radiodetection accessories |

# 7. Data capabilities and GNSS ('GPS')

| | | |
|---|---|---|
| **7.1 On-board GNSS ('GPS') module option:** | **GNSS data automatically added to Survey Measurements every time locate data is saved, and every second on usage-logging data**<br>**Accurate to 3m CEP with SBAS enhancement available**<br>**Links to GPS, GLONASS and Galileo networks**<br>**Positional data enhancement systems (where available)**<br>▪ **WAAS – North America**<br>▪ **EGNOS – Europe**<br>▪ **MSAS – Japan**<br>▪ **SBAS (satellite based augmentation system)**<br>**SBAS can be enabled or disabled in locator menu** | |
| **7.2 Link to external GNSS ('GPS'):** | **Over Bluetooth**<br>▪ **Connect to an external GNSS enabled device to combine survey measurements with that device's GNSS data on the external device** | |
| **7.3 External GNSS position read-in to locator memory:** | **Over Bluetooth from compatible mobile device / PDA running the SurveyCert+™ app.**<br>▪ **Connect to an external GNSS device to read positional positioning from that device and combine with the locator's survey measurement data on board the locator** | |
| **7.4 Survey measurement capacity:** | **Up to 1,000 data records** | |
| **7.5 Survey measurement data captured:** | **Standard data:**<br>**Log #**<br>**Survey Reference**<br>**Antenna Mode**<br>**Depth**<br>**Current (mA)**<br>**Frequency in use (Hz)**<br>**Sonde/Line**<br>**Signal Strength (dBμV and %)**<br>**Signal Strength (%)**<br>**Gain Setting (dB)**<br>**Compass (deg)**<br>**Arrow readout**<br>**CD Phase (deg)**<br>**Accessory Type**<br>**Battery level**<br>**Volume**<br>**Overload Flag**<br><br>**Usage-Logging Units:**<br>**Date and Time** | **With Internal or External GNSS Fix:**<br>**GPS Mode**<br>**GPS Date and Time**<br>**GPS Distance (m)**<br>**Latitude Angle (deg)**<br>**Latitude Direction**<br>**Longitude Angle (deg)**<br>**Longitude Direction**<br>**GPS Fix**<br>**Satellites in use**<br>**Horizontal Dilution**<br>**Altitude Value (m)**<br>**Altitude Units**<br>**Geoid Value (m) and Units**<br>**DGPS Time**<br>**DGPS ID**<br>**Time Reference**<br>**GPS Mode**<br>**GPS Date and Time**<br>**GPS Distance (m)**<br>**Latitude Angle (deg)** |

| | |
|---|---|
| 7.6 Survey measurement export options: | Bluetooth – 'live,' per measurement<br>Bluetooth – batch export<br>USB – selectable / batch export |
| 7.7 Bluetooth survey measurement data protocol options: | PPP<br>ASCII (choice of 3 formats)<br>Optional GPS data appended |

**7.8 Usage-logging and GNSS ('GPS'):**

| RD8100 MODEL | PXL | PXLG | PDL | PDLG | PTL | PTLG |
|---|---|---|---|---|---|---|
| Usage-logging | | ● | | ● | | ● |
| On-board GNSS ('GPS') | | ● | | ● | | ● |

| | |
|---|---|
| 7.9 Usage-logging memory: | 4 GB |
| 7.10 Usage-logging capacity: | Over 500 days, measured at 8 hours use per day |
| 7.11 Usage-logging capture rate: | 1/ second |

**7.12 Usage parameters logged:**

| | | |
|---|---|---|
| Serial number<br>Log reference and id<br>Operating mode<br>Locate frequency<br>Sonde/line<br>Signal strength<br>Gain setting<br>Depth<br>Current<br>Accessory in use<br>Antenna mode<br>Arrows readout<br>Compass angle<br>CD phase<br>Overload status<br>Dynamic Overload Protection Status | Keys pressed<br>Audio status<br>Volume<br>Menu in use<br>Battery status<br>User warnings status<br>Strike*Alert* status<br>Bluetooth status<br>Fault find arrow<br>Sidestep status<br>Language<br>Depth units<br>Power setting<br>Compass setting<br>CD reset status<br>**Logging Units:**<br>Date and time | **With a GNSS fix:**<br>Latitude<br>Longitude<br>Altitude<br>GNSS mode<br>GNSS date and time<br>Horizontal Dilution<br>Geoid<br>DGPS Time and ID<br>Geoid Units<br>GNSS fix<br>Number of satellites<br>Altitude units<br>Time reference |

## 8. Power options

| | |
|---|---|
| 8.1 Alkaline battery options: | 2 × D-Cell (MN1300 / LR20) alkaline batteries (standard) |
| 8.2 Rechargeable battery options: | Custom Lithium-Ion (Li-Ion) battery pack<br>2 × D-Cell (MN1300 / LR20) Nickel Metal Hydride (NiMH) batteries |
| 8.3 Battery run-time (continuous)[4]: | Li-Ion pack: 35 hours<br>2 × Alkaline D-Cells 13 hours |
| 8.4 Battery chemistry identification: | Lithium-Ion pack: Automatic sensing<br>NiMH / Alkaline: Software switchable |
| 8.5 Charging options (Li-Ion pack): | Mains charger: 100-250 Volts AC, 50/60 Hz<br>Automotive charger: 12-24V DC |
| 8.6 Charging time (Li-Ion pack): | 3 hours to 80% from empty with maintenance trickle charging thereafter |

## 9. Physical Characteristics

| | |
|---|---|
| 9.1 Design: | Ergonomic, balanced and lightweight design for comfortable use during extended surveys |
| 9.2 Construction: | Injection Molded ABS Plastic |
| 9.3 Weight: | **With Lithium-Ion battery pack fitted:**<br>Metric: 1.8kg<br>Imperial: 4.0lb<br>**With D-cell alkaline batteries fitted:**<br>Metric: 1.9kg<br>Imperial: 4.2lb |

| | |
|---|---|
| 9.4 Ingress Protection rating: | IP65<br>Protected against dust ingress and jets of water[5] applied from any direction |
| 9.5 Display type: | High contrast custom made monochrome LCD |
| 9.6 Audio options: | Built-in waterproofed speaker<br>3.5mm headphone socket |
| 9.7 Operating temperature[6]: | Metric: -20°C to 50°C<br>Imperial: -4°F to 122°F |
| 9.8 Storage temperature: | Metric: -20°C to 70°C<br>Imperial: -4°F to 158°F |
| 9.9 Unit dimensions: | Metric: 648mm × 286mm × 125mm<br>Imperial: 25.5" × 11.3" × 4.9" |
| 9.10 Shipping dimensions: | Metric: 700mm x 260mm × 330mm<br>Imperial: 27.6" x 10.2" x 13" |
| 9.11 Shipping weight (with batteries fitted): | Metric: 2.6kg<br>Imperial: 5.7lb |

## 10. RD Manager™ Supporting PC Software

| | |
|---|---|
| 10.1 Operating System Compatibility: | Microsoft® Windows® XP, 7, 8, 8.1, 10, 32 and 64-bit versions |
| 10.2 Locator system compatibility: | Radiodetection RD8100 Precision Locators<br>RD7000+ and RD8000 Cable, Pipe and Marker Locators |
| 10.3 Functions: | ▪ Locator configuration<br>▪ eCert™ remote calibration certification<br>▪ Factory calibration certificate retrieval<br>▪ Usage-logging data collation and export<br>▪ Survey measurements data collation and export<br>▪ User account management<br>▪ CALSafe™ maintenance schedule enforcement<br>▪ Product registration for extended warranty<br>▪ Locator software update<br>▪ Contact Radiodetection<br>▪ Book a service |
| 10.4 Data export formats: | .kml for Google® Maps<br>.csv for database and spreadsheet applications<br>.xls / .xlsx for Microsoft® Excel® |
| 10.5 KML data export options: | Filter usage-logging and survey measurement points on Google® maps.<br>Select data to be tagged. Customize icon type / color, label type / color, line type / color |

## 11. Warranty and Maintenance

| | |
|---|---|
| 11.1 Manufacturer's warranty duration: | 3 years standard, on registration |
| 11.2 Recommended calibration and maintenance schedule: | Annual, or at the beginning / end of a lease period if earlier |
| 11.3 eCert remote calibration: | ▪ Remote calibration certification using an internet connection to Radiodetection<br>▪ Recommended schedule: annual, or at the beginning / end of a lease period |
| 11.4 CALSafe™: | ▪ Can be enabled to prevent the locator operating when beyond a defined calibration / maintenance schedule<br>▪ Disabled by default<br>▪ 30-day countdown to calibration due date |
| 11.5 Enhanced Self-Test: | On-unit<br>Applies test signals to locate circuitry to confirm correct operation, as well as the typical tests for screen and DSP functions.<br>Recommended schedule: weekly, or before each use. |

| | |
|---|---|
| 11.6 Storage recommendation: | Store in a clean and dry environment.<br>Ensure all terminals and connection sockets are clean, free of debris and corrosion and are undamaged |
| 11.7 Cleaning: | Clean with a soft, moistened cloth.<br>Do not use<br>▪ Abrasive materials or chemicals<br>▪ High pressure jets of water<br>If using this equipment in foul water systems or other areas where biological hazards may be present, use an appropriate disinfectant. |

## 12. Certification and Compliance

| | |
|---|---|
| 12.1 Standards: | |
| *Safety:* | EN 61010-1:2010 |
| *EMC:* | EN 61326-1:2013<br>EN 300 330-2 (V1.5.1)<br>EN 300 440-2 (V1.4.1)<br>EN 301 489-3 (V1.6.1)<br>EN 301 489-17 (V2.2.1) |
| *Environmental:* | EN 60529 1992 A2 2013<br>EN 60068-2-64:2008 Test Fh<br>ESTI EN 300 019-2-2:1999 (per table 6)<br>EN 60068-2-27:2009 (Test Ea)<br>ESTI EN 300 019-2-2:1999 (per table 6) |
| 12.2 European directives: | R&TTE Directive 1999/5/EC<br>Low Voltage Directive: 2006/95/EC<br>EMC Directive: 2004/108/EC<br>Declaration of conformity is available from www.radiodetection.com |
| 12.3 Radio: | FCC, IC |
| 12.4 Environmental: | WEEE compliant<br>ROHS compliant |
| 12.5 Manufacturing: | ISO 9001:2008 |

## 13. Compatible Accessories

| | Accessory | Part description | Part number |
|---|---|---|---|
| 13.1 | Lithium-Ion battery packs | Li-Ion rechargeable battery mains kit (Includes mains charger)<br>Li-Ion rechargeable battery pack (no charger) | 10/RX-MBATPACK-LION-K<br>10/RX-BATPACK-LION |
| 13.2 | Lithium-Ion battery chargers | Li-Ion automotive charger<br>Li-Ion mains charger | 10/RX-ACHARGER-LION<br>10/RX-MCHARGER-LION |
| 13.3 | Alkaline battery trays | 2 × D Cell battery tray (MN1300 / LR20) | 10/RX-2DCELL-TRAY |
| 13.4 | Transportation and storage accessories – *For combined locator and transmitter* | Soft Carry Bag<br>Wheeled Flight Case<br>Hard Case | 10/LOCATORBAG<br>10/RD7K8KCASE<br>10/RD7K8KCASE-USA |
| 13.5 | Locator signal clamps *– For identification and location of utilities* | Metric: 50mm Locator Clamp<br>Imperial: 2" Locator Clamp<br>Metric: 100mm Locator Clamp<br>Imperial: 4" Locator Clamp<br>Metric: 130mm Locator Clamp<br>Imperial: 5" Locator Clamp<br>CD and Current Measurement Clamp | 10/RX-CLAMP-50<br>10/RX-CLAMP-2<br>10/RX-CLAMP-100<br>10/RX-CLAMP-4<br>10/RX-CLAMP-130<br>10/RX-CLAMP-5<br>10/RX-CD-CLAMP |

| | Accessory | Part description | | | | | Part number |
|---|---|---|---|---|---|---|---|
| 13.6 | Signal stethoscopes<br>*– To locate and identify individual utilities e.g. within walls, congested areas or when cables/utilities are in close proximity to each other* | High Gain Stethoscope<br>Large Stethoscope<br>Small Stethoscope<br>CD Stethoscope | | | | | 10/RX-STETHOSCOPE-HG<br>10/RX-STETHOSCOPE-L<br>10/RX-STETHOSCOPE-S<br>10/RX-CD-STETHOSCOPE |
| 13.7 | Sondes<br>*Battery powered signal transmitters for tracing or locating non-conductive utilities* | | Diameter | | Range | | Freq (Hz) | |
| | | | mm | In | m | Ft | | |
| | | S6 Microsonde | 6 | ¼ | 2 | 6½ | 33k | 10/SONDE-MICRO-33 |
| | | S9 Minisonde | 9 | 3/8 | 4 | 13 | 33k | 10/SONDE-MINI-33 |
| | | S13 Super Small Sonde | 13 | ½ | 2 | 6½ | 33k | 10/SONDE-S13-33 |
| | | S18 Small Sonde | 18 | ¾ | 4 | 14 | 33k | 10/SONDE-S18A-33 |
| | | Standard C-Sonde | 39 | 1½ | 5 | 16½ | 33k | 10/SONDE-STD-33 |
| | | | | | | | 8k | 10/SONDE-STD-8 |
| | | | | | | | 512 | 10/SONDE-STD-512 |
| | | Slim Sonde | 22 | 7/8 | 3.5 | 11½ | 33k | 10/SONDE-SLIM-33 |
| | | Sewer Sonde | 64 | 2½ | 8 | 26 | 33k | 10/SONDE-SEWER-33 |
| | | Super Sonde | 64 | 2½ | 15 | 50 | 33k | 10/SONDE-SUPER-33 |
| | | Flexi Sonde | 23 | 7/8 | 6 | 20 | 512 | 10/SONDE-BENDI-512 |
| 13.8 | Submersible antennas: | 640 / 512Hz Submersible DD Antenna<br>8kHz Submersible DD Antenna | | | | | | 10/RX-SUBANTENNA-640<br>10/RX-SUBANTENNA-8K |
| 13.9 | FlexiTrace™<br>*– Use with a transmitter to trace small diameter pipes* | FlexiTrace 50m / 165'<br>FlexiTrace 80m / 260' | | | | | | 10/TRACE50-GB<br>10/TRACE80-GB |
| 13.10 | Flexrods<br>*– Fibreglass rod used for propelling Radiodetection sondes through pipes to trace the path and locate blockages* | Length | | Diameter | | | | |
| | | m | Ft | mm | In | | | |
| | | 50 | 160 | 4.5 | 3/16 | | | 10/FLEXRODF50-4.5 |
| | | 80 | 260 | 4.5 | 3/16 | | | 10/FLEXRODF80-4.5 |
| | | 50 | 160 | 7 | ¼ | | | 10/FLEXRODF50-7 |
| | | 100 | 320 | 7 | ¼ | | | 10/FLEXRODF100-7 |
| | | 150 | 485 | 7 | ¼ | | | 10/FLEXRODF150-7 |
| | | 60 | 195 | 9 | 3/8 | | | 10/FLEXRODF60-9 |
| | | 120 | 390 | 9 | 3/8 | | | 10/FLEXRODF120-9 |
| 13.11 | A-Frame *– Used for locating sheath faults on cables and coating defects on pipelines* | A-Frame (includes A-Frame Lead)<br>A-Frame Bag | | | | | | 10/RX-AFRAME<br>10/RX-AFRAME-BAG |
| 13.12 | Headphones | Recommended for use in noisy environments | | | | | | 10/RX-HEADPHONES |
| 13.13 | Warning Triangle | Three sided folding warning sign | | | | | | 10/WARNING-TRIANGLE |
| 13.14 | PDAs | GPS PDA with SurveyCERT™+ | | | | | | 10/RX-PDA |
| 13.15 | Calibration Certificates | Locator Calibration Certificate, per unit (request with initial locator order)<br>eCert™ Calibration Credit | | | | | | 97/RX-CALCERT<br>10/RX-ECERT |

● Available feature

**All specification are measured in test conditions, at 21°C / 70°F, and fitted with 2 × good quality alkaline batteries unless otherwise noted.**

**[1] Based on volumetric testing at a known fixed depth. True depth accuracy depends on factors such as ground composition, utility characteristics and the locate frequency / signal strength employed. Always follow local safe digging guidelines.**

**[2] The RD8100 will locate to greater depths in the right conditions, but depth accuracy will be compromised. Depth measurement will not be displayed beyond these depths.**

**[3] Tested with clear line-of-sight. Range is dependent on electrical environment and weather conditions. For optimum range, face the locator toward the transmitter and raise the transmitter 2' / 60cm from the ground.**

**[4] To provide repeatable measurements, run-time is measured with GPS and Bluetooth functions switched to 'off'.**

**[5] Water projected by a nozzle at a pressure of 30kPa /0.3 bar / 4.4 psi in accordance with BS EN 60529 1992 A2 2013.**

**[6] At very low temperatures, battery life will be degraded, LCD performance may slow and measurement precision may reduce.**

RADIODETECTION

SPX

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