

2082

Underground Utilities Locator

Product Specifications

General Specifications

Maximum voltage between any terminal and earth ground 600 V

Temperature

Operating..... -20 °C to 50 °C (-4 °F to 122 °F)

Storage -40 °C to 60 °C (-40 °F to 140 °F)

Humidity (without condensation)..... 0 % to 90 %, 5 °C to 30 °C
0 % to 75 %, 30 °C to 40 °C
0 % to 45 %, 40 °C to 50 °C

Altitude ≤2000 m (≤6561 ft)

Ingress protection IEC 60529: IP54
(non operating)

Safety compliance

General..... IEC 61010-1: Pollution Degree 2

Electromagnetic Compatibility (EMC)

International..... IEC 61326-1: Portable Electromagnetic Environment;
IEC 61326-2-2 CISPR 11: Group 1, Class A

Group 1: Equipment has intentionally generated and/or use conductively coupled radio frequency energy which is necessary for the internal functioning of the equipment itself.

Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a lowvoltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.

Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

Korea (KCC)..... Class A equipment (Industrial Broadcast & Communications Equipment)

Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

USA (FCC) 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

2082BTR BTLE Radio

Electromagnetic compatibility (EMC) USA (FCC) 47 CFR 15 Subpart C Sections 15.203, 15.209, 15.249

Wireless Radio

Frequency Range..... 2400 MHz to 2483.5 MHz
Output Power <100 mW

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Fluke declares that the radio equipment contained in this Product is in compliance with Directive 2014/53/EU. The full text of the EU declaration is available at the following internet address:

www.fluke.com/red

Radio Frequency

To view the Radio Frequency Data Class A Instruction Sheet, visit <http://www.fluke.com/en-us/support> and search for "Radio Frequency Class A".

Electrical Specifications

2082T

Measurement category CAT IV 600 V

Transmitting frequency **Energized circuit**
Induction mode: 33 kHz (32,768 Hz)
Direct connection modes: 8 kHz (8,192 Hz) and 33 kHz (32,768 Hz)

De-Energized circuit
Induction mode: 33 kHz (32,768 Hz)
Direct connection modes: 8 kHz (8,192 Hz), 33 kHz (32,768 Hz), A-Lo/A-Hi
A-Frame: 8 kHz (8,192 Hz)
Clamp mode: 8 kHz (8,192Hz) / 33 kHz (32,768Hz)





Transmitting mode power output..... Max. 3 watts

Output voltage Max. 50 V rms



Output current Max. 250 mA rms, constant current in 5 steps

Mains voltage measurement (typical)..... 0 V to 600 V, 50 Hz to 60 Hz
Resolution: 1 V
Accuracy: $\pm 10\%$



Resistance measurement (typical) (De-energized circuit)..... 0 Ω to 999 k Ω
Range: 0 Ω to 999 Ω (resolution: 5 Ω)
Range: 1 k Ω to 999 k Ω (resolution: 1 k Ω)
Accuracy: $\pm 10\%$

Output hazardous voltage warning	≥ 30 V rms Icon displayed on screen: Tx 
Mains hazardous voltage warning	≥ 30 V rms Red light indicator: 
Over-voltage indication	OL
Audio indication	Fast beeps showing the better signal is applied
Compatible receiver	2082R and 2082BTR Receiver
Compatible accessories	SC2082 Signal Clamp AF2082 A-Frame TL2082 Test Lead Set
Display	Monochrome dot matrix graphic LCD display (LED backlight) 2.4 in x 1.3 in (60 mm x 32 mm)
Power supply	Eight (8) 1.5 V D cell IEC LR20
Auto power off	None
Battery life (Typical)	Up to 16 hours at 70 °F (21 °C)
Low battery indication	 


2082R

Operating voltage	90 V to 600 V
Tracing modes	Active tracing: 33 kHz (32,768 Hz) and 8 kHz (8,192 Hz) Passive tracing: 50 / 60 Hz and Radio
Locating modes	Peak and Null
Sensitivity adjustment (gain control)	Yes
Depth measurement	Up to 20 ft (6 m)
Depth measurement accuracy (typical) (Using single undistorted signal source)	4 in (0.1 m) to 10 ft (3m): ± 5 % or +4 digits (imperial)/+10 digits (metric) whichever is greater 10 ft (3 m) to 20 ft (6 m): ± 10 %
Sensitivity at 1 m (typical)	Power: 2 mA Radio: 20 µA 8 kHz: 5 µA 33 kHz: 5 µA
Display backlight	Automatic
Audio indication	Increasing closer to the signal
Compatible transmitter	2082T Transmitter
Display	4.3 in (109 mm), 320 x 240 BW outdoor LCD display with auto backlight
Power supply	Six (6) 1.5 V AA IEC LR6
Auto power off	15 minutes idle
Battery life (Typical)	Up to 35 hours at 70 °F (21 °C)
Low battery indication	 and/or  at upper right corner of the screen

2082BTR

Operating voltage	90 V to 600 V
Tracing modes	Active tracing: 33 kHz (32,768 Hz) and 8 kHz (8,192 Hz) Passive tracing: 50 / 60 Hz and Radio
Locating modes	Peak and Null
Sensitivity adjustment (gain control)	Yes
Depth measurement	Up to 20 ft (6 m)
Depth measurement accuracy (typical) (Using single undistorted signal source)	4 in (0.1 m) to 10 ft (3m): $\pm 5\%$ or +4 digits (imperial)/+10 digits (metric) whichever is greater 10 ft (3 m) to 20 ft (6 m): $\pm 10\%$
Sensitivity at 1 m (typical)	Power: 2 mA Radio: 20 μ A 8 kHz: 5 μ A 33 kHz: 5 μ A
Display backlight	Automatic
Audio indication	Increasing closer to the signal
Compatible transmitter	2082T Transmitter
Display	4.3 in (109 mm), 320 x 240 BW outdoor LCD display with auto backlight
Power supply	Six (6) 1.5 V AA IEC LR6
Auto power off	15 minutes idle
Battery life (Typical)	Up to 35 hours at 70 °F (21 °C)
Low battery indication	 and/or  at upper right corner of the screen
Wireless radio	Frequency Range: 2400 MHz to 2483.5 MHz Output Power: <100 mW
GPS	Yes

AF2082

Tracing mode (de-energized)	8 kHz (8,192 Hz)
Locating mode	Ground fault locating
Sensitivity (typical)	Cable locate mode at 1 meter depth: 10 uA Fault locate mode: up to 2 MΩ fault
Display backlight	Automatic
Audio indication	Speaker indicates left/right by pulsed/continuous tone
Compatible transmitter	2082T Transmitter
Display	1.28 in (33 mm) 128 x 128 BW outdoor LCD display with auto backlight
Update rate	Instantaneous
Power supply	Six (6) 1.5 V AA IEC LR6
Auto power off	15 minutes idle
Battery life (Typical)	Up to 60 hours at 70 °F (21 °C)
Low battery indication	Blinking 

SC2082

Measurement category	CAT IV 600V, 100 A
Operating frequency	33 kHz (32,768 Hz) and 8 kHz (8,192 Hz)
Signal voltage output (nominal)	23 V rms at 8 kHz 30 V rms at 33 kHz
Compatible transmitter	2082T Transmitter

TL2082

Measurement category	CAT IV 600 V, 10 A
Leads length	11.5 ft (3.5 m)
Compatible transmitter	2082T Transmitter