NexusGEO® Bluetooth Interface

A Bluetooth interface which can be used to connect a wide range of sensors with analogue or digital outputs to an Android smart device

GEOSENSE

NexusGEO® Bluetooth Interface

Overview

The Geosense NexusGEO® is a Bluetooth Interface which can be used to connect a wide range of sensors with analogue or RS-485 digital outputs to an Android smart device. This means data can easily be accessed on site by any Android device such as a smartphone or tablet.

Specially-developed by Geosense, it is designed to offer interoperability between sensors and the chosen Android device. This enables the user to benefit from the increased processing capability and connectivity of a smart device over a standard readout.

The user can simply read and store data or read, store and transmit it via a mobile network.

The NexusGEO® App makes it possible to download raw data or acquire calibration factors from the sensor which can then be used to convert the data into engineering units. All data can then be downloaded as a CSV file either locally onto the Android device or synchronised to a central database.

Colour-coded connections for the different analogue sensor types plus a simple digital connector makes the NexusGEO® easy to use. It comes complete with battery charger and colour coded 'jumper cables' complete with crocodile clips.

The NexusGEO® can be used on any Android device, such as the affordable rugged CAT® S41 which is available from Geosense, see over for full specification.

FEATURES

Android compatible

Bluetooth technology

Multiple sensor inputs

Auto calibration factors upload

Purpose-designed APP

Small & lightweight

Easy to use

Re-chargeable battery

Displays battery status

Fully CE compliant

www.geosense.co.uk

NexusGEO® Bluetooth Interface

Specifications

Signal inputs	VW (Hz), mA, V, mV/V, Pt100, NTC, RS-485
Range	VW Hz 400-5000 mA 4-20 V Single ended 0-100 V Differential 0-10 mV/V Singled ended 0-20 mV/V Differential 0-1000 Pt100 Ω 15-400 NTC Ω 250-50,000
Power supply	Internal 12Vdc Ni-Mh battery, rechargeable
Sensor supply	+20V, +12V, +5V, 750uA, 50uA
Current supply@12V	100mA @ 4-20mA, no load 85mA @ +20V single, no load 70mA @ +12V dual, no load 60mA @ mV/V dual, no load 72mA @ Pt100, 100 Ω load 55mA @ NTC, 3K Ω load 60mA @ VW, 777.1Hz 15mA @ no Bluetooth connection
Measurement resolution	24 bit, 0.1Hz for VW
Display	Android device
Sensor connection	Analogue (4mm socket), Digital RS-485
Temperature stability	+15ppm/ºC maximum
Operating temperature	-20 to +70 ºC
Enclosure	IP65
Dimensions L x B x H	150 x 105 x 35mm
Weight	465g

CAT® S41 Smartphone

Overview

The CAT® S41 smartphone is used as a handheld readout to configure and collect data using a purpose-designed app.

Designed for use in challenging environments, the S41 has a long-lasting battery and provides a high-level user interface and industry-leading memory plus wireless communication options for ease of use and reliability.

CAT® phones are built to Military Defence Specification MIL SPEC 810G and are IP68 water and dust resistant. The scratch-resistant screen has been drop-proof tested onto concrete from up to 1.8 metres. It's also tough enough to handle thermal shocks and salt mist spray.

It has a 5,000mAh battery to give you up to 38 hours talk-time and 44 days stand-by-time. You can even use it as a power bank for other mobiles with the Battery Share feature.

APPLICATIONS

On-site data collection

Compatible with several systems and dataloggers

FEATURES

Rugged design for use in extreme environments

5,000mAh battery and battery share

44 days stand-by-time

32GB flash storage

Data speed: Downlink 300Mbps; Uplink 50Mbps

Corning® Gorilla® Glass screens

MIL SPEC 810G and IP68 certified

Dust-proof and drop-proof

BATTERY[1]

Type: Non removable Lithium Ion

Capacity: 5000mAh, Pump Express 2.0

Talk Time: Up to 38 hours (3G)

Stand-By Time: Up to 44 days

DATA SPEED[2]

Maximum Downlink Data Rate: 300Mbps

Data Speed (Maximum Uplink Data Rate): 50Mbps

MEMORY[3]

ROM Flash: 32GB

RAM: 3GB

Extended Storage: microSD™ (up to 2TB)

NETWORK[4]

4G compatible, user SIM dependent

[1] Battery: Times (talk time, standby time, and more) are based on 3G and are subject to network and phone usage.

[2] Data Speed: Upload and download speeds also depend on the mobile operator.

[3] Memory: Available storage is less due to phone software.

[4] Network: Bands in regions may be different, depending on the mobile operator and your location.

CAT® S41 Smartphone

Specifications

DISPLAY

Display Type: Super Bright 5" Display – FHD (1920 x 1080) IPS, auto switch support and wet finger/glove-on working technology**

Display Cover: Corning® Gorilla® Glass 5

CAMERA

Main/Rear: 13MP autofocus with PDAF, LED flash

Front: 8MP fixed focus

CONNECTIVITY

Audio Jack: 3.5mm

Bluetooth: 4.1

NFC: Yes (Android Pay™)

Wi-Fi: 802.11 b/g/n (2.4 & 5GHz)

USB: micro-USB 2.0, USB-OTG

Sim Type: Nano SIM, dual and single SIM variants

GPS: GLONASS, GPS, aGPS, Beidou (variant dependent)

PROCESSOR

Processor Type: MTK P20 MT6757 Octacore 2.3GHz

Platform/OS: Google Android™ Oreo

RUGGED

IP Rating: IP68 Certified

Waterproof: Up to 2m for 60 mins

Dust Proof: Dust Resistant
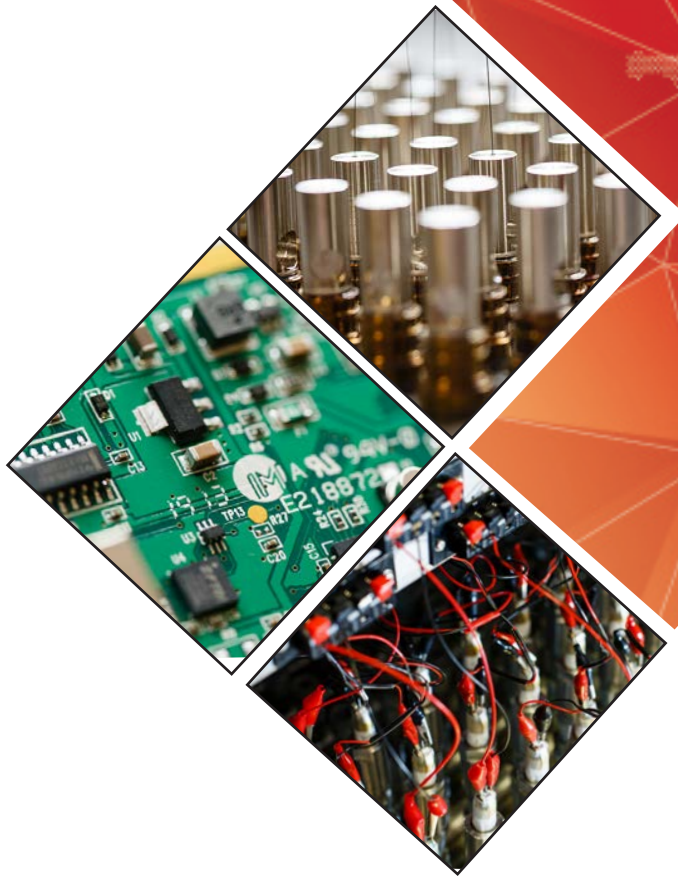
Drop Test: Up to 1.8M

Military Standard: MIL-SPEC 810G, Shock and Drop, Operating Temp: -25°C to +55°C, Category 4 vibration

SIZE

Size: 152 x 75 x 12.85mm

Weight: 218g

** We cannot guarantee that all gloves will work with this feature. A stylus is supplied for use in wet weather conditions.

GE◊SENSE