Bently Nevada
a Baker Hughes business

SCOUT200* series

Portable vibration analyzers

These portable data collector solutions record the vibration of industrial machines, to monitor their condition and diagnose their faults. The Series includes "SCOUT" models for use in hazardous areas (explosive atmospheres) and "COMMTEST" models for less stressful environments. There are 2-channel and 4-channel versions of each, to suit your data acquisition and analysis needs.

Designed in and for the 21st century

These two-part solutions utilize the power and connectivity of modern industrial smartphones and tablets, paired with a small form factor, rugged data acquisition module. This gives the best of both worlds, a fast handheld device full of accessories and communication options, and a simple durable interface to sensors on your machines.

Flexible handheld options

Choose from multiple handheld devices to meet your form factor, screen size, and hazardous rating needs. Update your handheld at any time, load the System 1 Collector app onto the new device and get collecting.

So easy to carry

Carry the data acquisition module using a shoulder strap or a belt clip. Sensors mount onto sensor keepers. Hold the industrial smartphone or tablet in your hand, on a belt clip, or on a neck strap. So you can focus on your job and move safely between machines.

Powerful and connected

Vibration recordings are viewed and stored on the handheld device. It runs the Android OS, so you can use it like any smartphone or tablet to take pictures and video, send text messages, check email, make phone calls, track your location, create SOS alerts, and run other enterprise apps. Try doing all that on an old school data collector!

High performance data acquisition

Unlike most products on the market, the intrinsically safe SCOUT devices retain the same high performance and long battery life as their non-rated COMMTEST brethren. Ten hours of continuous use, while supporting up to: 80 kHz Fmax, 12,800 line spectral resolution, 6-Pack super fast measurements, 4 channel simultaneous sampling, optional tachometer. And the firmware updates automatically from the handheld. Amazing!

System 1 software, your plantwide solution

Use System 1* to prepare routes, analyze data, detect long-term trends, set and detect alarms. Then synchronize data with your SCOUT handheld using WiFi, file transfer, cellular network, or a USB cable. But System 1 doesn't stop there, it's the same powerful package that's coupled with a broad range of Bently Nevada condition monitoring and protection products. One source of the truth, modern and plantwide.

Specification summary (For full details see datasheets: SCOUT 109M0226, COMMTEST 109M0792)

Sensors	Sensor input simultaneous sampling	SCOUT220-IS & COMMTEST220: 2 channels
		SCOUT240-IS & COMMTEST240: 4 channels
	Compatible sensor types	Accelerometer, velocity, displacement, voltage.
	Base accuracy	AC signals: ± 1% of reading, DC level: ± 1% of full scale
	Frequency range (±3dB)	1 Hz to 70 kHz (0 Hz to 70 kHz when DC coupled)

Tachometer	Optional laser tachs	3 alternatives, from non-rated to IS rated
	Compatible tach types	Laser, contact, TTL, Keyphasor
	Power output	5V, 40mA. Rated Zone 2, 22 and Div 2
	Threshold and hysteresis	Manual or Automatic
	Speed range	60 rpm to 1,200,00 rpm (1 Hz to 20 kHz)

Spectra	Fmax options	25 Hz to 80 kHz (28 options), orders based 1X to 999X
	Spectral resolution	400 to 3200 or 12800 depending on model & chans
	Averaging	1 to 128 averages, 0 to 87.5% overlap
	Demodulation	Classic algorithm: 23 band options Peak algorithm: 4 band options
	6Pack	Spec & Wfm for each of: LF, HF, Demod

Communication	Bluetooth	BT 4.0 Classic (for communication with handheld)

Battery	Battery type	7.4V, 4000mAh, li-Ion, factory replaceable
	Operating time	10 hours typical on route data collection

Mechanical	Size	5.1" x 5.1" x 1.4" (130 x 130 x 35 mm)
	Weight	SCOUT: 1.5 lb, (680 g) COMMTEST: 1.3 lb (590 g)

Environmental	Operating Temp	4 °F to 140 °F (−20 to 60 °C)
		122 °F (50°C) max in Ex haz areas
	Ruggedness drop and sealing	MIL-STD-810F 4' (1.2 m) drops onto concrete, IP65
	Hazardous area rating	SCOUT220-IS and SCOUT240-IS: IECEx & ATEX, Zone 1 & 21, Ex ia [ia] IIC T4 Ga CSA Class I & II, Div ABCD & FG COMMTEST220 & COMMTEST240: non-rated

Handheld options	Numerous options	Smartphones and tablets from ecom and isafe
	Screen size range	4" to 8"
	Wireless and GPS	4G/LTE, WiFi, BT 4.0, NFC, GPS ..
	Cameras	3 to 8 MP
	CPU	1.2 to 2 GHz, 4 to 8 cores
	Battery	3600mAh to 8400 mAh, Li-Ion
	Weight	325 g to 1250 g
	Memory	Up to 3 GB RAM, 32 GB ROM, 64 GB card
	Ruggedness	Up to IP68, −20 to 60 C (−4 to 140°F)
	Hazardous area rating	From non-rated to Zone 1/21, Class 1 Div 1

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