ACT-400

NOISE MONITORING AND MANAGEMENT SOLUTION

Technical Specifications

IEC class	IEC 61672-1 ed. 2.0 (2013) (0° and 90° reference direction) ; IEC 61620 (1995) NF EN 61260/A1 (2002) ; Sound Level Meter, Integrating Sound Level Meter with storage, group X.
Dynamic range	21-138 dB (A, B), 26-138 dB (C), 31-138 dB (Z), 1 single range for a rated sensitivity of 50 mV/Pa
Linear operating range for A weighting	5 frequencies : 31,5 Hz : 26-97 dB ; 1 kHz : 24-137 dB ; 4 kHz : 24-137 dB ; 8 kHz : 24-133 dB ; 12,5 kHz : 24-129 dB
Dynamic range Peak	61-140 dBC, 1 single range
Time weightings	Slow, Fast, Impulse, Peak
Frequency weightings	A, B, C, Z
Instantaneous broadband values stored	Depending on your setup on cadence
Filter	1/1 (8Hz-16kHz) et 1/3 (6.3Hz-20kHz)
Input high pass filter	0,3 Hz / 10 Hz
Audio recording	Uncompressed metrological signal, Fs = 51200 Hz ; Sampling frequencies: 51200, 25600, 12800, 6400, 3200, 1600 Hz ; Pre-trigger = 10s at Fs=51200 Hz ;

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Typical background noise (with MCE3 mounted on ACT-400)	Less than 21,5 dB according to the measurement range
Preamplifier	Integrated, not removable ; External type PRE22 (included in DMK01) on external input (standard 10 m lemo extension cable)
Integrated keys	2 keys
Connection	USB: Type 2.0; mass storage mode, charge on USB; Ethernet connection: Connector RJ45, Speed: 100 MB/s ; DHCP mode; WIFI connection: IEEE 801.11b, g ; Access Point; Cellular network connection: Embedded modem 4G LTE cat 4
Electrical check	Programmable periodicity: 1, 2 or 4 times per day (0h,0h-12h, 0h, 6h, 12h, 18h) ; 3 pre-set frequencies (1000 Hz, 2000 Hz, and 4000 Hz) and 2 user-defined frequencies (between 10 Hz and 20 kHz) ; 2 user-defined excitation levels, maximum level 5 V (100%)
TTL output	R = 100 Ohms / 0 / 5V
TTL input	R = 100 kOhms / 0...1V = "0" 1.8...5V ="1"
Battery	Type lithium polymer ; Voltage 3.7V ; Capacity 6750 mAh ; Non removable, charging time approximately 3 hours
Typical power consumption	Without communication <1200 mW
External power supply	DC 8 to 28 V on charge input
Memory	SD, SDHC or SDXC card, 2 GB or higher (2GB standard delivery) for measured data and signals. Minimum recommended requirement: ≥ class 10. Please note only SD cards provided by 01dB should be used. ; 01dB cannot be held responsible for data loss if the SD card used is not delivered by 01dB. ; Measured data stored on the SD card every 10 seconds. ; Non-volatile memory for configurations, system log (500), calibration data (500) and electrical checks (500)
Clock	GPS PPS, error < 50 milliseconds ; Internal clock, error < 0.5 s/24 hours
Localization	Automatic with integrated GPS ; Information stored with measurement campaigns
Warm-up time	From power off: < 25 seconds
Operating temperature	-10°C to +50°C
Humidity	IEC 60068-2-78: damp heat: 90% HR (non condensing at 40°C)
Electromagnetic compatibility	According to Directive 2004/108/EC ; NF EN 61000-6-1 NF EN 61000-6-2 NF EN 61000-6-3 NF EN 61000-6-4 (2001) ; ETSI EN 300 328 V1.5.1 (2004)
Protection	IP55 in standard use (vertical with connector cover
Weight and dimensions	775 g.; H x L x P: 300 x 70 x 52 mm

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MAIN ACCESSORIES (OPTION)

Weather stations

A weather station can be interfaced to ACT 400 so as to be able to simultaneously measure and store noise and weather data.

The same mains power is used for ACT 400 and for the weather station; the 10 meters unique cable between the station and ACT400 offers a good flexibility and ease of installation. The weather data logging period is defined as a multiple of the noise logging period.

Wind speed, Wind direction, Air temperature, Relative humidity, Rain intensity, Barometric pressure are possible to measure with acoustic measurements data synchronised.

Power supply

Three types of power supply are available with ACT- 400. A weather proof power supply, A standard power supply as used by Fusion, Duo, Cube devices.

Or a power supply with bare wires. With it, the user has the choice to do his own power supply connectors.

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