

TA150 Spectral sensor for noise measurement (1/3 octave)*

DATA SHEET

D_TA150_v0008_20251127_EN

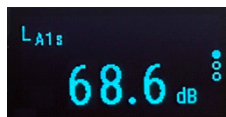
* Optional

CESVA takes a step forward in monitoring by introducing the new TA150 sensor that is characterized by:

- Simultaneous continuous measurement 24/7,
 - Niveles globales del nivel equivalente con ponderación frecuencial A, C y Z y ponderación temporal F, S e I, además de sus máximos y nivel de pico.
 - 1/3 octave band levels* for the frequency range from 6.3 Hz to 20 kHz.
- Class 1 accuracy according to IEC 61672-1 and IEC 61260-1.
- Allows the obtaining of audio files* (format mp3, flac or wav) with automatisms(by level, time or emergency).
- Ethernet communication(RJ45) and Wi-Fi. Also available 4G modem+ Geolocation.
- Mains power supply, POE, 5-12 VDC (Solar panels, External batteries), Street lighting network with daily battery backup(BA150*) or BA151 battery *.
- External outputs 4-20mA* current loop, RS232* serial or RS485* serial for data transmission.
- Mini OLED screen,
 - Shows the sound level, communications status and sensor power.
 - Allows quick verification with an acoustic calibrator.
- Protection against external agents with outdoor kit.
- Volatile memory with capacity of up to 2 months.
- It has a web server for configuration.
- Minimum annual maintenance.
- 100% IoT integrable in different platforms.



COMPLETE



NUMERICAL



COMMUNICATIONS



POWER

TECHNICAL SPECIFICATIONS

ACOUSTIC MEASUREMENT ACCORDING 61672-1

MEASURED ACOUSTIC FUNCTIONS:

Equivalent levels⁽¹⁾

L_{AT} , L_{CT} , L_{ZT} and L_{AIT}

Maximum levels⁽¹⁾

L_{AFmaxT} , L_{ASmaxT} and L_{AlmaxT}

Peak level⁽¹⁾

L_{CpeakT} and L_{ZpeakT}

⁽¹⁾ with a programmable time between 1 s and 60 min

Percentiles

L_{10} , L_{50} and L_{90}

ACCURACY according to IEC 61672-1: class 1

L_F , L_S , L_I and L_T :

Measurement range (without scales): from 25,5 to 137 dBA

Linearity range 1kHz: from 30,5 to 137 dBA

L_{Cpeak} :

Measurement range (without scales): from 29,1 to 140 dBC

Linearity range 1kHz: from 55,0 to 140 dBC

VERIFICATION: With an acoustics calibrator (IEC 60942)

MICROPHONE

TYPE:	½" Condenser microphone
POLARIZATION:	0 V
NOMINAL SENSITIVITY :	16,0 mV/Pa

POWER

MAINS (100/240 V~ 0,6 A | 50/60 Hz)

URBAN LIGHTING NETWORK (Battery required BA150*)

PoE (Power Over Ethernet)

5-12 VDC INPUT

BA151* Battery

APPLICATIONS

- Smart Cities sensing
 - ✓ Noise surveillance networks (permanent monitoring):
 - ✓ Road and port infrastructures, Industrial activities, separate waste collection routes, control of works, ...
- Noise monitoring leisure areas:
 - ✓ Concerts, festivals, major events and exhibitions.
 - ✓ Sports events and racetracks.
- Generating noise maps and displaying in real time noise levels .
- Monitoring and assessment of noise reduction action plans.
- Recognition, detection and identification of sound sources.
- Declaration of smart tourist destinations (ITD).

CONNECTIVITY

ETHERNET COMMUNICATION for data transmission:

PORT: RJ45, 10/100 Mbps

Wi-Fi COMMUNICATION for data transmission:

TYPE: 2,4GHz WPA2

OPTIONAL CONNECTIVITY for data transmission

COMMUNICATION 4G + Geolocation

The MR154* module is required

4-20 mA CURRENT LOOP

The CL150* module is required

RS232 COMMUNICATION (Includes MODBUS)

The RS152 * module is required

RS485 COMMUNICATION (Includes MODBUS 2 and 4 wires)

The RS154 * module is required

TRANSMISSION PROTOCOLS

PROTOCOL : HTTP, HTTPS, MQTT/TLP and MQTT/TLS

IP ADDRESS: Dynamic (DHCP) and Static

FORMAT : Sentilo, JSON, Ultralight 2.0, Other
(consult)

OPTIONS*

FR150 Module for 1/3 octave band analysis from 6,3 Hz to 20 kHz

GA150 Module for audio files acquisition

MR154 Module for data transmission 4G+Geolocation

CL150 Analog output for 4-20mA current loop

RS152 Module for digital communication RS232

RS154 Module for digital communication RS485

BA150 Internal lithium battery for 24h cycles

BA151 Internal lithium battery for 5 days cycles

The characteristics, technical specifications and accessories may be altered without prior notice