

MK:427 NoiseSensor

Environmental Noise Monitoring

Accurate, reliable and weatherproof outdoor environmental noise monitor that connects directly to existing systems



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What is the MK:427?

The MK:427 is an accurate, reliable and weatherproof outdoor environmental noise monitor that is a self-contained unit, which connects directly to process measurement and control systems, SCADA and DCS systems.

Applications

Unattended environmental noise monitoring for a range of industries:

- Manufacturing
- Aviation
- Motorsport
- Power generation
- Construction

Key features of the MK:427

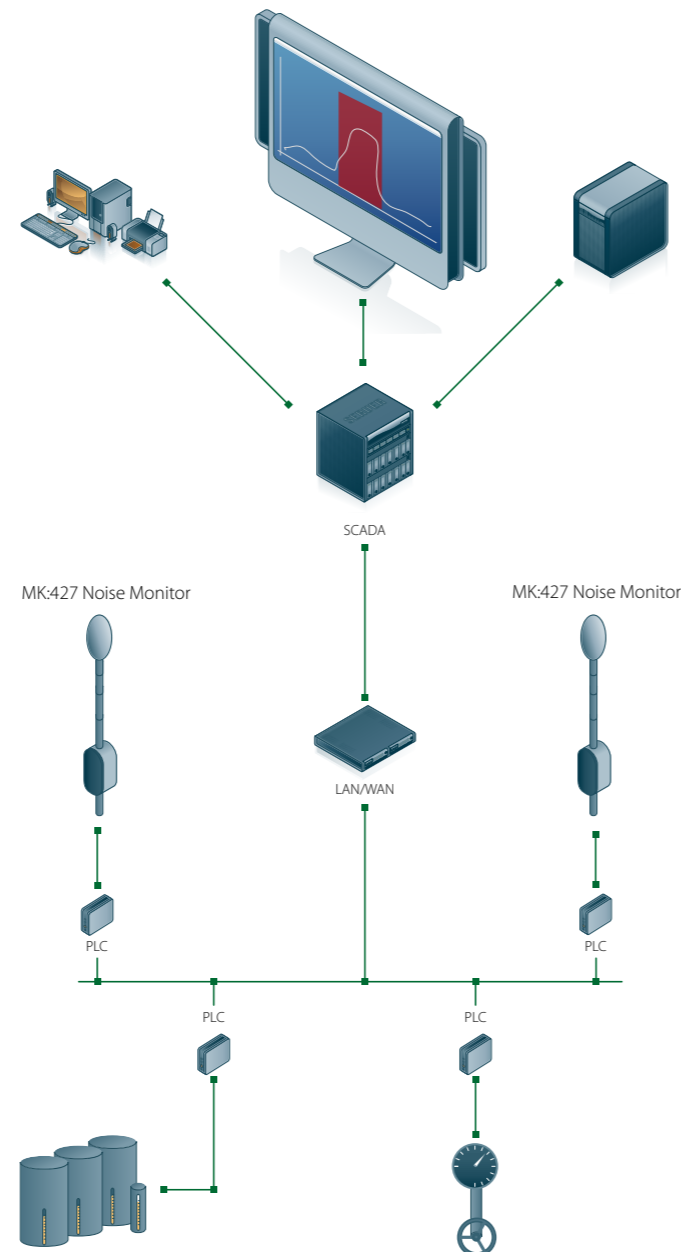
- Highly reliable environmental noise monitor made from robust, durable and weatherproof materials to withstand the harshest outdoor environments
- Eliminates the need for third-party software with straightforward integration through 4-20mA current loop systems
- Highly accurate, meeting the requirements of IEC 61672-1:2002
- 30 to 100dB(A) standard measurement range, with other options available on request
- Regular instrument verification and remote calibration through an integrated electrostatic actuation system

Integration with existing process monitoring and control systems

Many industrial plants have a variety of process sensors strategically placed around their site so that safety, environmental and efficiency can be monitored and managed in real time, from one or more control rooms.

The MK:427 NoiseSensor from Cirrus Research can be connected with unparalleled ease to such a system, sending out continuous live data.

Schematic of a typical control system



Live noise data to SCADA or DCS systems

Unlike a conventional sound level meter, the MK:427 NoiseSensor simply converts the noise level in decibels to an industry-standard 4-20mA output, which can be fed directly into a SCADA-type control system. The live noise levels can then be displayed and stored using your own system's software, overcoming the challenge of installing third-party software where the complexity of additional programmes can cause security issues.

Permanent and reliable outdoor performance

The pure-analogue electronics are highly reliable and operate without any user intervention. No specialist acoustic knowledge is required - simply power-up the MK:427 NoiseSensor and the measured noise level is continuously fed to the output.

The outdoor microphone assembly has proven reliability for long-term permanent use, even in the harshest of outdoor environments. Upgrading to the WS:73 Extreme-Condition Windshield is recommended to further extend the MK:427's ability to withstand harsh environmental conditions.

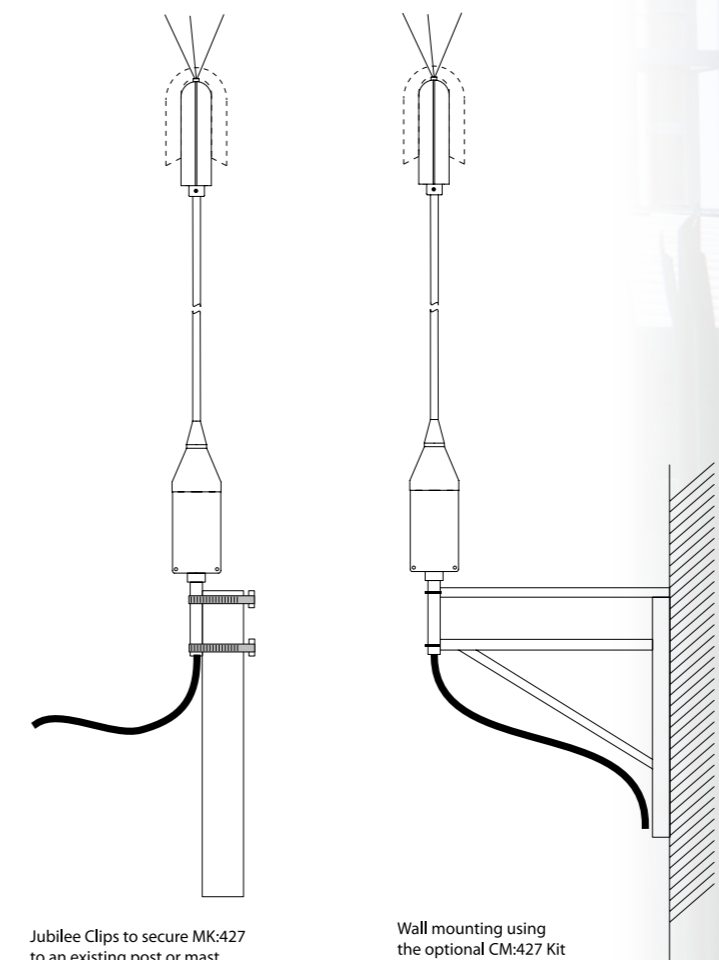
Automatic self-calibrating system

The electrostatic calibration system provides automated remote calibration of the system using a simple +5V trigger. This allows the performance of the system to be routinely verified, which ensures compliance with international standards and is both time-saving and especially useful where the unit is installed in difficult-to-access or remote locations.

Ease of installation

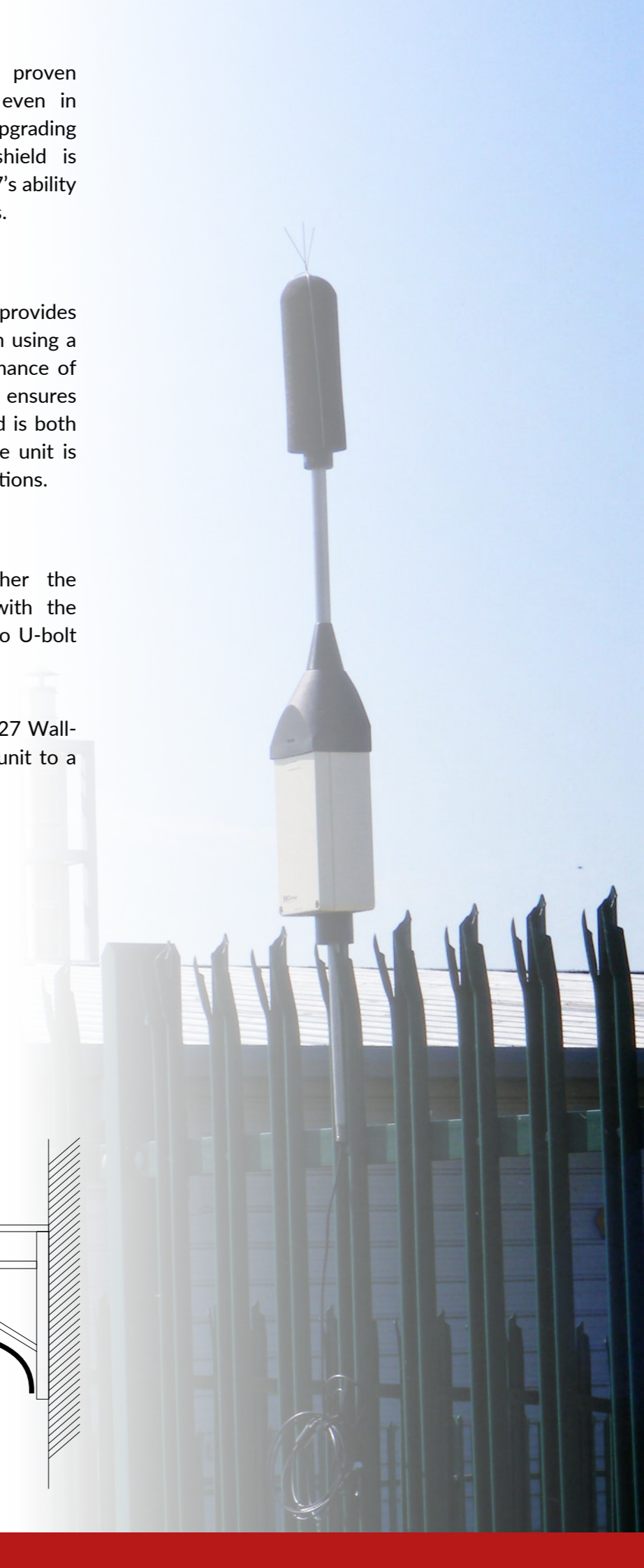
Installation is straightforward, using either the standard mounting equipment supplied with the MK:427 NoiseSensor, which consists of two U-bolt kits and three Jubilee® clips.

We also offer an upgrade option: the CM:427 Wall-Mounting Kit, for those wishing to fix the unit to a building face or wall.



Jubilee Clips to secure MK:427 to an existing post or mast

Wall mounting using the optional CM:427 Kit



Technical Specifications

Applicable Standards

Class 1 to IEC 61672-1:2002

Output type

A-weighting sound pressure level output in the form of a 4-20mA loop

Frequency weighting

dB(A) to IEC 61672-1:2002

Time weighting

Factory-set to Fast (F) IEC 61672-1:2002

Automatic calibration

Electrostatic actuator system with DC voltage control

Measurement range

30 - 100dB(A)

Other options are available on request

Current loop output

$I_{out} = 0.1\text{mA/dB}$

Dimensions

1m length

Weight

4.5Kg

Mounting

240mm x 30mm diameter pole

Mounting kit provided

2 U-brackets, 4 nuts, 3 Jubilee clips

External power

+12V DC in

Output cable

10m as standard.

Other lengths are available on request

IP rating

65

Product ordering codes

Class 1 MK:427 NoiseSensor environmental noise monitor with short mast	MK:427S
Class 1 MK:427 NoiseSensor environmental noise monitor with long mast	MK:427L
Wall mounting kit for the MK:427 NoiseSensor	CM:427
Extreme condition windshield for the MK:427 NoiseSensor	WS:73