

MK:440

Environmental Noise Monitor

Integrate noise monitoring into your data logging system
and start measuring your impact on noise pollution



MK:440 Environmental Noise Monitor

What is the MK:440?

The MK:440 is a compact, light and easy to deploy environmental noise monitor that integrates directly into existing PLC data logging and monitoring systems, providing accurate and comprehensive acoustic data.

Applications

Unattended environmental noise monitoring for a range of industries:

- Manufacturing
- Aviation
- Motorsport
- Power generation
- Construction
- Class 1 Division 2 hazardous environments (North America only)

Key features of the MK:440

- Easy and simple to install into existing DCS/SCADA-based PLC data logging and monitoring systems
- No long or complicated setup procedure: simply connect to your system and start monitoring
- Fully weatherproof means it can withstand the harshest of outdoor environments
- No dials, controls or displays means there's no requirement to learn how to use the instrument - it connects to your system
- Small and compact design means it can be installed almost anywhere
- Approved for use in hazardous environments (North America only)

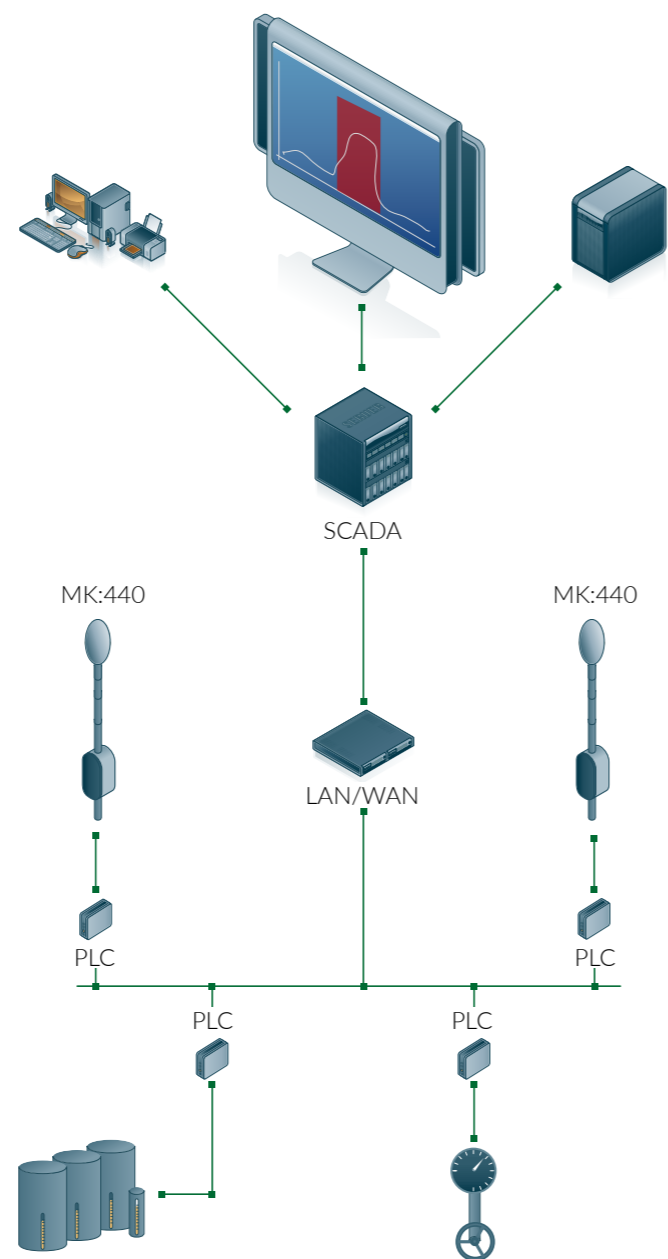
The essential tool for long-term environmental noise monitoring

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:440 from Cirrus Research can be connected with unparalleled ease to such a system, sending out continuous live data. Its robust weatherproof design makes it perfectly suited to any environment and its 70dB measurement range makes it capable of measuring and detecting significant noise events.

The highly reliable analogue noise monitor requires little user intervention and features an easy-to-remove rain protection windshield and housing for easy calibration.

Schematic of a typical control system



Live noise data to SCADA or DCS systems

Unlike a conventional sound level meter, the MK:440 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.

Electrical connections

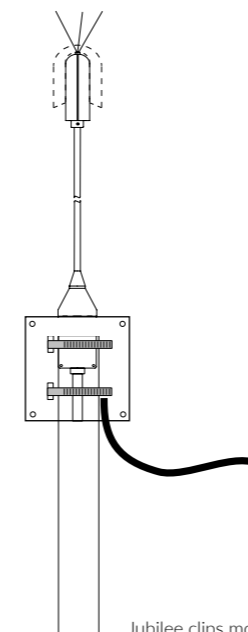
The MK:440 is supplied with either a 12.7mm (1/2") NPT female thread to facilitate fully protected cabling using standard-width piping or M20 gland for standard cable entry. Four connections are required to the unit for power and the 4-20mA control loop. These connections can be by wiring directly to the internal PCB via the screw terminals supplied.

Certified non-incendive for use in North America (US & Canada)

The MK:440 has been certified non-incendive for use in Class 1 Division 2 hazardous environments, which include locations like mines, gas pumps and stations, processing plants, and food and beverage manufacturing locations. With the MK:440, you can monitor noise in any location to ensure that people and the environment are protected against the devastating effects of exposure to excessive noise.

Eay installation

Installation is straightforward, using either the standard mounting equipment supplied with the MK:440, which consists of two U-bolt kits and three Jubilee® clips. This enables the MK:440 to be mounted away from other surfaces, which may reflect sound waves, providing inaccurate measurements.



Jubilee clips mount the MK:440 to a pole or mast



Technical Specifications

Applicable standards

IEC 60079-0
IEC 60079-15

Output type

A weighting SPL in 4-20mA loop

Frequency weighting

dB(A)

Time weighting - selectable at factory

Fast, slow

Measurement range - selectable at factory

64-134 dB
54-124 dB
44-114 dB
34-104 dB
24-94 dB

Current loop out

$I_{out} = 0.1A/dB$

Dimensions

440mm x 118mm x 84mm
17.3" x 4.6" x 3.3"

Weight

1.8kg

External power

12 to 24V DC

Current

70mA

Cable entry

½" NPT or M20 Gland

Cable length

10m (393.7") max

Operating temperature

-10 to +50°C

IP rating

54

Product ordering codes

MK:440 environmental noise monitor	MK:440N
MK:440 non-incendive environmental noise monitor approved for use in hazardous environments	MK:440
Mounting kit for the MK:440 environmental noise monitor	BP:440
Windshield for MK:440 environmental noise monitor	UA:440