3M Personal Safety Division
3M™ Detection Solutions Products

Detection
Solutions

Pocket Catalog
for Safety Professionals

The power to protect your world.℠

3M

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Introduction

As a global leader in sound, noise, heat stress and indoor air quality measurement, 3M delivers easy and comprehensive solutions to complex detection challenges.

3M™ Detection Solutions help make it easy to measure noise, heat or indoor air quality hazards to help you select protection for your application. Our detection solutions deliver accurate and reliable measurements, and 3M™ Detection Management Software (DMS) makes it easy to report and share data.

Complying with regulations, implementing appropriate abatement programs and analyzing noise control options are all easier with 3M Detection Solutions for exposure assessment, noise analysis and employee engagement. 3M's flexible instrumentation coupled with powerful software is an innovative solution for your measurement challenge.

Occupational & Environmental Noise

3M™ Sound Detector SD-200 Sound Level Meter

The Sound Detector SD-200 is a compact, lightweight sound level meter designed for measurement of workplace noise levels. Its intuitive design makes it easy for users to measure sound levels and helps users determine the attenuation of hearing protection that may be required. The integrating feature computes the average sound pressure level, allowing for more accurate assessment of intermittent sound levels.

User Friendly
- Intuitive interface for out-of-the-box operation
- Averaging functionality provides steadier reading in environments where noise levels are variable
- Visual LED alerts help users assess the need for hearing protection

Industry-compliant
- Meets applicable ANSI and IEC Class/Type 2 standards

Economical
- Rechargeable battery helps lower total cost of ownership compared to sound level meters that use replaceable batteries

Occupational & Environmental Noise

3M™ Sound Examiner SE-400 Series Sound Level Meters

The Sound Examiner SE-400 series of integrating, data-logging sound level meters is engineered to accurately measure noise levels in highly variable environments, including those that require intrinsic safety. They compute the average sound pressure level (L_{EQ}/L_{AVG}) over the run time, helping you to more accurately assess occupational and environmental noise levels. All models are ready to use with no set-up required.

Certified
- Red models have intrinsic safety approvals

User Friendly
- Intuitive interface allows for out-of-the-box use with minimal training
- User-selectable data-logging intervals for download and analysis with 3M™ Detection Management Software (DMS)
- Averaging functionality allows for easier assessment in variable environments

Versatile
- Printing capability with optional digital printer* provides hard-copy documentation in the field
- Models available with Class/Type 1 or Class/Type 2 microphones
- SE-401 and SE-402 models include removable preamp* for environmental noise applications

Accurate
- Meets applicable industry standards
- Reliable data collection for hearing conservation programs

*Available on non-intrinsically safe models only.

Occupational & Environmental Noise

3M™ SoundPro™ SE and DL Series Sound Level Meters and Real-Time Analyzers

The SoundPro™ SE and DL series help provide advanced sound level monitoring and comprehensive data analysis. Available in Class/Type 1 and Class/Type 2 models, these instruments feature large-screen displays that enable real-time frequency analysis, and data-storing capabilities that make it easy to post-process and evaluate workplace noise levels.

User Friendly
- Intuitive operation features large displays with menu-driven interface and quick keypad calibration

Comprehensive
- Accurately measures, documents and displays noise exposures to support hearing conservation
- Measures against multiple sound level meter standards simultaneously with two virtual meters
- Octave band analysis capability enables environmental noise monitoring, noise enforcement and noise control evaluation
- Available in Class/Type 1 and Class/Type 2 models

Powerful
- Removable SD memory card plus optional data logging for enhanced post-processing and analysis
- Compatible with optional 3M™ Detection Management Software (DMS) for advanced reporting and analysis

Occupational & Environmental Noise

3M™ Verifier Speech Intelligibility Instruments

The Verifier is a special type of sound level meter offering speech intelligibility measurement to help ensure that fire alarms, mass communications and public address (PA) systems are clearly heard and understood in an emergency. The instrument's intuitive display and keypad allow users with varying levels of expertise to perform speech intelligibility testing.

User Friendly
- Easy setup and operation
- Results given for public address systems in Speech Transmission Index-PA (STI-PA) and Common Intelligibility Scale (CIS) formats

Fast and Accurate
- Quick 15-second measurement intervals with post-processing functionality
- Run-time clock shows duration of studies and sessions
- Measures in accordance with IEC 60268-16, NFPA 72 Annex E and DOD UFC-4-021-01

Flexible
- Eight selectable ranges of 50 dB to 140 dB
- Displays table of modulation indices
- GPS coordinate logging

Occupational & Environmental Noise

3M™ Noise Indicator NI-100

The Noise Indicator NI-100 alerts users to potentially dangerous noise levels, helping identify areas where noise assessment may be needed to determine the need for hearing protection. Users clip the Noise Indicator to a shirt or jacket, and its LED light delivers a clear indication when noise levels exceed a potentially hazardous threshold. Its small size and lightweight design make it ideal for workers in a variety of industries.

Easy
- Provides visual "Go/No Go" flashing red or green indication of noise levels above or below 85 dBA, helping you determine if hearing protection may be needed
- Simple one-button operation with a rechargeable battery

Comfortable
- Small and lightweight
- Clips to lapel or pocket

Effective
- Provides an affordable training tool for helping workers determine when hearing protection may be required
- Increases awareness of hearing conservation guidelines
- Can be used as a mapping tool to qualify future noise studies

Occupational & Environmental Noise

3M™ Edge Personal Noise Dosimeters

The Edge noise dosimeter offers a compact frame for a lighter, more ergonomic way to monitor noise levels. This innovative dosimeter weighs only 3 ounces and features a thin, contoured shoulder mount. The Edge eg4 has dual dosimeters and data logging/time history. The Edge eg5 has intrinsic safety approvals, and when used with 3M™ Detection Management Software (DMS), users can activate a third independent dosimeter, allowing for simultaneous measurement against three industry standards.

Comfortable
- Compact, 3-ounce (85 grams) unit mounts easily to the shoulder
- Ergonomic design helps assure comfort

Intuitive
- Large display with easy-to-use interface provides crucial information at a glance
- The Edge eg5 offers three independent dosimeters that can simultaneously measure against separate industry standards, all in one compact unit

Certified
- Monitor can safely perform in potentially hazardous environments
- The Edge eg5 meets MSHA, SIRA (ATEX), CSA (US/Canada) and Simtars (IECEx) intrinsic safety approvals

Occupational &
Environmental Noise

3M™ NoisePro™ Personal
Noise Dosimeters

The NoisePro Personal Noise Dosimeters help industrial hygiene and safety professionals monitor noise exposure efficiently and provide tools to empower worker self-management of noise exposure. Its compact and rugged IP-65 rated casing, intrinsic safety certifications and advanced features make the NoisePro an excellent choice for a wide range of applications.

Efficient
- Only one instrument needed to measure up to four independent dosimeter readings
- Large LCD display offers quick assessment at a glance

Versatile
- Optional boom microphone allows conversion to sound level meter for area sampling
- Choose from Class/Type 1 or Class/Type 2 microphones

Reliable
- Meets UL, ULc, MSHA, Ex and ATEX intrinsic safety approvals
- IP-65 aluminum case for use in rugged environments

Occupational &
Environmental Noise

3M™ AcoustiCal AC-300 Calibrator

The AcoustiCal AC-300 is a precision sound level calibrator for calibration of Class/Type 1 and Class/Type 2 instruments. It generates two settings with either 250 Hz or 1000 Hz at a sound pressure level of 114 dB. The sound pressure level and combinations of frequency outputs conform to the requirements of the IEC standard 60942 (2003) for sound calibrators.

Precise
- Specifically designed for field calibration of 3M sound level meters and noise dosimeters across a wide range of temperature, humidity and pressure conditions
- Produces two signals — 250 Hz or 1,000 Hz at a sound pressure level of 114 dB

Quick
- Single On/Off/Function key leads to fast calibrations
- Simply insert the microphone of your instrument, select the correct signal from the one-button keypad and calibrate

Reliable
- Conforms to the requirements of IEC 60942 (2003-01) for sound calibrators and ANSI S1.40-2006 (R2011) specifications and verification procedures for sound level meters
- Auto-Off function powers down 4 minutes after last key press, reducing power drain and saving battery life

Heat Stress

3M™ QUESTemp° II
Personal Heat Stress Monitor

The QUESTemp° II personal heat stress
monitor helps provide an additional level of
data by directly detecting the individual's physiological
heat response. User-activated alarm trip points provide an audio alert
to workers experiencing elevated core temperatures. This instrument
is an excellent choice for applications where individuals face a wide
range of heat exposure. It allows safety directors to monitor personal
heat stress levels and create measures that can minimize risk.

Comfortable
- Compact size combined with belt or pocket attachment allows for
  convenient personal monitoring

Reliable
- Accuracy =/-0.1° C (0.2° F) and ranges from 32° C to 40° C
  (89.6° F to 104° F)
- Minute-by-minute data logging allows for documentation of
  personal heat exposure
- Audible alarm automatically signals user when selected heat level
  has been reached

Heat Stress

3M™ WIBGET™ WB-300
Heat Stress Monitor

The WIBGET WB-300 Heat Stress Monitor WB-300 helps you quickly
and easily detect key environmental factors that can contribute to
heat stress. This durable yet lightweight heat stress monitor delivers
high-performance area monitoring using Wet Bulb Globe Temperature
(WBGT) measurements for assessing environmental heat stress. Its
durable design readily withstands the rigors of the workplace, and
its easy-to-use features and simple operation make the WIBGET
WB-300 an ideal monitor to help you establish your heat stress
management program.

Quick
- Direct reading of Wet Bulb, Dry Bulb, Globe, WBGTin and
  WBGTout temperatures makes identifying heat stress factors
  fast and easy

Reliable
- Uses proven Wet Bulb Globe Temperature (WBGT) sensing
  technology; the standard for measuring the potential for
  heat stress
- Accurately calculates WBGT to help users establish
  work-rest ratios

Easy
- Durable, lightweight and simple to use; made to withstand the
  rigors of the workplace

3M™ QUESTemp°
32/34/36 Area
Heat Stress Monitors

The QUESTemp° 32/34/36 is designed to quickly and accurately evaluate potential heat stress environments. It delivers high-performance monitoring through WBGT (Wet Bulb Globe Temperature) sensing technology and the calculation of a WBGT Index value.

Trusted
- Utilizes WBGT (Wet Bulb Globe Temperature) sensing technology; the standard for heat stress management
- Intrinsic safety available on select models

Versatile
- Traditional wet bulb sensing technology
- Convenient stay time parameters per multiple standards help determine work-rest ratios

Rugged
- IP 54 ingress rating helps protect unit from exposure to dirt, dust, oil and water
- Designed to withstand the rigors of everyday use in demanding environments

3M™ QUESTemp°
44/46/48N Area Waterless
Wet Bulb Heat Stress Monitors

The QUESTemp° 44/46/48N utilizes a waterless wet bulb sensor designed for working environments where daily instrument upkeep is difficult. A high-quality humidity sensor and proprietary algorithm perform the calculation of the WBGT values, eliminating the hassle of daily wet bulb maintenance.

Trusted
- Utilizes WBGT (Wet Bulb Globe Temperature) sensing technology; the standard for heat stress management

Versatile
- Waterless wet bulb sensing technology eliminates daily maintenance
- Convenient stay time parameters per multiple standards help determine work/rest ratios

Rugged
- IP 54 ingress rating helps protect unit from exposure to dirt, dust, oil and water
- Designed to withstand the rigors of everyday use in demanding environments

Environmental Monitoring

3M™ EVM Series Particulate Mass Concentration & Air Quality Monitors

The EVM-7 measures both particulates and air quality, and provides a lower cost of ownership by combining three instruments into one. Its patented dial-in rotary impactors, intuitive user interface and advanced reporting make the EVM-7 an instrument of choice for safety and industrial hygiene professionals worldwide. Additional models include the EVM-3, specializing in direct reading of particulate mass concentrations, and the EVM-4, designed for indoor air quality studies.

Economical
- Particulate, gas and photoionization detector (PID) measurement from a single device
- Compact design means there's less to carry to the job site

Proven
- 90-degree light-scattering laser photometer measures particulates in real time
- Proprietary technology for selecting particulate settings — no need for external cyclones
- Built-in sampling pump allows for gravimetric analysis

User Friendly
- Large, easy-to-read display with trend graphing for measurements
- Time history data logging and compatibility with 3M™ Detection Management Software (DMS) make analysis efficient

Data Management & Analysis

3M™ Detection Management Software (DMS)

Once you've detected the level of noise exposure, 3M™ Detection Management Software (DMS) allows you to centrally organize and access the information through our user-friendly software. It's data management made easy. DMS works with 3M™ Detection Solutions data-logging instruments to allow for recording, reporting, charting and analyzing exposures to a variety of occupational and environmental hazards. Easy to learn with icon-driven navigation, DMS provides a simplified user experience and a powerful, consistent software platform across multiple sites.

Convenient
- Centrally organize and access exposure data
- Retrieve, download, share and save instrument data
- Provides consistent software platform for multi-site organizations

Instinctive
- Icon-driven navigation provides simplified user experience
- Easy to learn and use without extensive training

Powerful
- Perform "what if" analysis and recalculate data based on selected time intervals
- Generate insightful charts, graphs and reports
- Set up instruments and check for firmware updates
- Template-driven reports make it easy to determine what data to include

Calibration Services

3M™ Calibration, Service and Extended Warranty Programs

3M™ Detection Solution instruments are warranted to be free from defects in materials and workmanship for one year under normal conditions of use and service. For added peace of mind, consider enrolling in a 3M™ Detection Instrumentation Extended Warranty Program. These programs provide two years total of full warranty coverage, including the cost of components* and microphones, as well as a Level II calibration.

Annual Calibrations
- Factory product warranty extension for additional 12 months
- Factory hardware and firmware updates automatically installed
- Assurance that intrinsic safety approvals are not voided by unapproved repairs or modifications
- Calibration measurements for many products are traceable to a U.S.A. NIST laboratory

Extended Warranty Programs
- Two years total of warranty coverage
- Standard lead time of five to seven business days
- Free expedited shipping for orders within the United States
- Level II calibration performed by a certified technician at an ISO 17025 accredited 3M laboratory

*Excludes Interchangeable Smart Sensors and PID (ppd and ppm) Sensor for EVM.

3M Detection, Protection and Validation

Detection   **Protection**   **Validation**

A global leader in sound and noise detection, hearing protection and fit test validation

3M delivers easy and comprehensive solutions to complex protection challenges. Accurate noise detection is the first step in helping you assess your hearing protection needs. Our detection instruments deliver accurate and reliable measurements, and 3M™ Detection Management Software (DMS) makes it easy to report and share data.

Once you've monitored noise exposures, it is critical to select hearing protection that your employees are motivated to wear. 3M delivers an unmatched variety of innovative hearing protectors, making it easy for you to select the right solution for the job.

You can then assess and manage the long-term performance of your hearing conservation program with the 3M™ E-A-Rfit™ Validation System. Integrating hearing protector fit testing into your program makes it easier to fit, train and motivate workers to wear their hearing protection correctly.

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