PINSSAR

Accutron INSTRUMENTS

Protect every breath

Advance your operation's potential and protect the health of your workforce

Make every breath positive progress with Pinssar.

Diesel emissions are an often overlooked health hazard. Governments and workers are demanding healthier air quality standards in their workplaces.

The need for continuous, real-time monitoring of diesel emissions has never been more important.

“ Everyone deserves to be safe and healthy at work. Pinssar supports the drive towards zero harm.”

Pinssar has developed an award winning solution which reliably monitors diesel emissions and provides continuous, real-time air quality data. This globally recognised solution provides data 24/7 allowing you to confidently progress your project.

The Pinssar system is the only practical solution for managing your diesel emission control strategies in harsh environments.

Our system delivers insights to enable you to consistently manage your diesel emissions and protect the health of your workforce.

Take control

Give your people greater confidence when working in confined spaces.

Protect your people and protect your progress with Pinssar:

Healthy workplace
Reduce worker exposure to unacceptable levels of DPM.

Visibility
Understand and make informed choices of 'unseen' air quality hazards.

Reliability
A proven, ultra-low maintenance solution specifically designed for harsh environments.

Simplicity
Reduce the complexity of identifying the source of dangerous DPM levels.

Leading practice
The only solution to address the requirements of BS 6164 and deliver proactive competitive advantage.

Confidence
Establish and acknowledge DPM baseline trends for your environment and establish a long term strategy for management.

Validation
Prevent project downtime and substantiate DPM mitigation costs (filters, ventilation, etc.).

Practicality
Offset existing DPM monitoring technologies and reduce compliance risk.

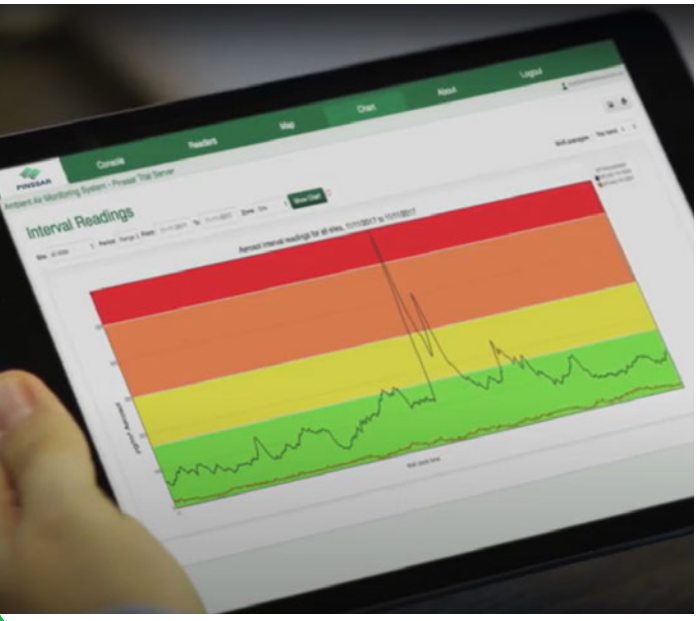
Connectivity
Collect configurable 24/7 data for approved users to enable smarter decisions and move more tonnes safely.

Security
Protect your competitive advantage, all data remains proprietary to the owner.

Visualisation
Compatible with control system architecture and all ventilation simulation software / VoD (ventilation on demand).

How it works

The Pinssar DPR solution was specifically developed to detect particles smaller than 0.8 micron, or 800 nanometres (nm). With patented diesel emission technology and 23 unique innovations recognised globally. It provides DPM data on a continuous, 24/7 basis to work in conjunction with current mitigation strategies. The real time data collected by the Pinssar DPR units can be analysed either via the Pinssar Dashboard or by connecting to your company's preferred Dashboard and/or SCADA package.



Pinssar DPR Features

- DPM specific 0-800 nm particle range
- Communication methods including wifi, cellular, ethernet, direct USB connection and others
- Over 200 industrial protocol options such as Modbus TCP/IP, OPC
- 8 years of onboard data memory
- Remote diagnostics
- IP Rating of 64
- Automatic sample humidity conditioning
- Automatic temperature and pressure compensation
- Instantaneous pressure compensating, eg blast protection
- Automatic zero drift compensation on every sample
- Multiple power supply options such as 110 – 240V AC, 24V DC and others on request
- Battery back up power supply
- Stainless steel enclosure
- Custom options upon request

Pinssar Dashboard Features

- Client network installation (client owned data)
- Data available on all smart devices, incl. phone, tablets, laptops, and desktops
- Dynamic, live graphical view
- Customisable shift average graphical view
- Colour coded, configurable DPM ranges
- Exportable data into charts and graphs
- Configurable notifications and alerts
- Multiple readings and sites can be viewed from one dashboard
- Historical data analysis

Technical Specification - Model: DPMRA02

Measurement Technique	Laser-light scattering photometry
Concentration Range	0 to 2,500µg/m3
Self-Cleaning	The optical cell is flushed with filtered air after each sample is taken.
Measurement Frequency	Preset to 5 minute intervals between samples. Range from 2 mins to several hours.
Zero Drift	Negligible; uses a proprietary auto-zero system.
Remote Management	Management of Pinssar DPR device can be done remotely via Pinssar DPM Monitoring System Server software, or an alternate client based SCADA or monitoring system.
Size Fraction	≤ 800nm
Particulate Type	Particulate Mass is calibrated to the response of a reference photometer gravimetrically calibrated to diesel particulate matter (< 800nm).
Dimensions	With external filter 660mm (H) x 250 mm (D) x 740mm (W) Without external filter 660mm (H) x 250mm (D) x 675mm (W)
Mass	35.7 kg
Flow Rate	2.2 litres per minute
Operating Humidity Range	0 to 90% relative humidity (non-condensing)
Operating Temperature Range	-10°C to 50°C, 14°F to 122°F
Enclosure Material	Stainless Steel (316 grade)
IP Rating	IP64
Internal Clock	Sync to UTC (require internet access)
Sample Data Characteristics	**Timestamp:** Year, Month, Day, Hour, Minutes and Seconds **Sample Data:** Serial number, sample value, Reader status and several fields of diagnostics data. **Packet size:** 104 bytes
Internal Data Storage	2GB CF Card
Diagnostics	Several fields of diagnostics data are transferred to Pinssar DPM Monitoring System, or to an alternate client based SCADA or monitoring system.
Power Option	240 VAC, 120W Other options available on request.
Protection	Input surge voltage (1 sec) 50 VDC Overvoltage, overload, short circuit and thermal protection **Input:** T3.15A/250VAC fused in line and neutral Isolation – Input to Output 4000 VAC, Input and Output to Ground 1500 VAC
Circuit Breaker	6A manually resettable internal CB combination Residual Current Device
Identification Labelling	Serial number plate on right hand side panel
Data Communication Interface Options	**Ethernet:** 10/100Base TX (Cat5 RJ45) **Wireless:** LTE/UMTS (HSPDA/HSPDA+), WiFi (IEEE 802.11b,g,n) **Modbus:** Modbus TCP Protocol
Compliances	**EMC, RF and Safety:** EN55032:2015 COR 2016 (CISPR 32:2015 Ed 2) EN301 489-1: V2.1.1 (2017-02) EN301 489-17: V3.1.1 (2017-02) EN 61000-3-2:2006, A1:2009, A2:2009 (IEC 61000-3-2:2005, A2:2009) EN 61000-3-3:2013 (IEC 61000-3-3:2013 Ed 3 FCC Title 47 CFR, Part 15 Subpart B and ICES-003 ANSI C63.2, ANSI C63.4 EN62311:2008 ICNIRP Guideline 447498 D01 General RF Exposure Guidance v06 FCC Title 47 CFR, Part 15.247(i), 1.1307(b), and 1.1310 RSS-102 Issue 5 and GL-01 Issue 3 ETSI EN 300 328 V2.1.1 (2016) ETSI EN 301 893 V2.1.1 (2017) FCC Title 47 CFR, Part 15.207, Part 15.247 EN 60950-1:2006, A1, A2, A11, A12 AS/NZS 60950-1:2015

This product is protected by U.S. Patent No 10,809,174 and other pending applications and foreign patents.

When it comes to your project's diesel emissions monitoring strategy, will you....

- ✓ protect your people
- ✓ protect your production
- ✓ protect your financials
- ✓ protect your social licence
- ✓ enable data driven decisions
- ✓ embed Pinssar in your strategy

Don't risk your production.
Measure your diesel emissions 24/7.

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