



GT SCAN



TECHNICAL DATA SHEETS



www.guardtech.com



0330 113 0303



sales@guardtech.com



Unit C The Brocks Business Park, Homefield Road, Haverhill, Suffolk, CB9 8QP



DIRECTORY



Introduction **pg 4**



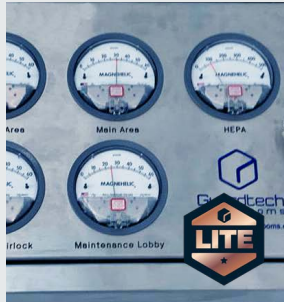
GT Scan Max **pg 6**



GT Scan Pro **pg 8**



GT Scan Plus **pg 10**



GT Scan Lite **pg 12**



Comparisons **pg 14**



GT SCAN

ENVIRONMENTAL MONITORING



Guardtech offer a range of environmental monitoring system (EMS) solutions to best suit the needs of your application. Whether it's budget, lead time or performance that matters most, Guardtech provide a comprehensive choice of rapid rise door options to ensure your process requirements are achieved.

Whether it's a more basic analogue Magnehelic differential pressure gauge you need, all the way up to a comprehensive large-scale 21CFR Part 11 compliant monitoring system, Guardtech Group's Directors, Design Engineers and Installation team have worked together to carefully select four industry-leading ceiling options for your consideration.

Read on to discover the benefits and compromises of the different choices we have, then use this guide to make the most informed EMS choice possible.

Let Guardtech take your operation to the next level.



SCAN MAX

GT Scan Max is our elite-level EMS – a 21CFR Part 11 compliant system combining state-of-the-art software and hardware to provide accurate readings for temperature, humidity, differential pressure and more.



SCAN PRO

GT Scan Pro is a flush-mounted multifunction pressure transmitter that can display up to three critical atmospheric parameters simultaneously and utilises a newly developed 21 CFR Part 11-compliant software.



SCAN PLUS

Wall-mounted transmitter with user-friendly touchscreen display in robust, attractive plastic housing. Multifunction sensors featuring interchangeable probes that can display and measure parameters simultaneously.



SCAN LITE

Guardtech's entry-level environmental monitoring system – a versatile analogue Magnehelic differential pressure gauge that indicates positive, negative or differential, accurate to within 1%.



SCAN FIRE

This product range does not currently include a Fire Rated solution. Please consult a Guardtech rep for more information on your fire safety options.





GT SCAN MAX

GT Scan Max is our elite-level EMS – a 21CFR Part 11 compliant system combining state-of-the-art software and hardware to provide accurate readings for temperature, humidity, differential pressure and more.

GT Scan Max is an environmental monitoring system (EMS) that is used with Pro and IceSpy hardware to provide a secure and flexible tool for comprehensive data collection, analysis and immediate alarm notification.

GT Scan Max boasts a user-friendly contemporary browser-based interface which enables data from the hardware to be seamlessly fed into one system, providing an industry-leading software and hardware combination.



Multisite/Group

Audit trails

Historical data

Email/SMS alerts

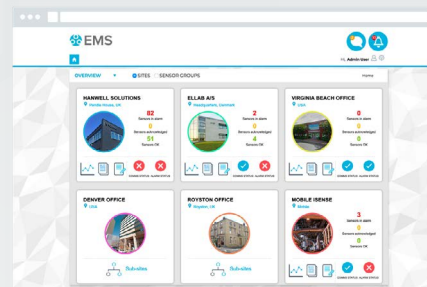
Report Scheduling

RAG Views

PRODUCT FEATURES

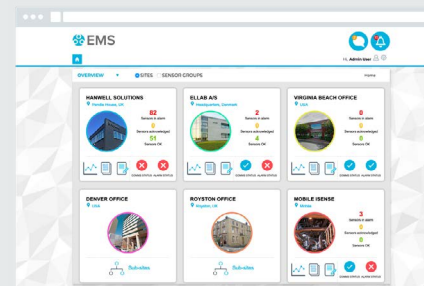
OVERVIEW

Overview provides users with an overview of overall system status, while the dashboard can be customised per user.



TABULAR VIEW

Tabular View provides list of sensors with clear indication of alarm, battery status and live data.



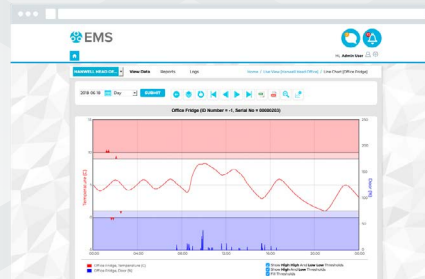
PLAN VIEW

Plan View provides visual indication of sensor location within a facility. Sensor icons show real-time data and alarms and interaction.



GRAPHICAL VIEW

Graphical View provides line graphs with optional door position indicator, alarm level indication. Data overlays, zoom plus many more features.



GT SCAN MAX MEASUREMENTS

Temperature – Carbon Dioxide – Differential Pressure – LUX – Relative Humidity

VALIDATABLE SOFTWARE

Specifically for the Pharmaceutical sectors, we provide comprehensive IQ and OQ protocols and custom protocols, where required. Trained engineers and distributors are available for

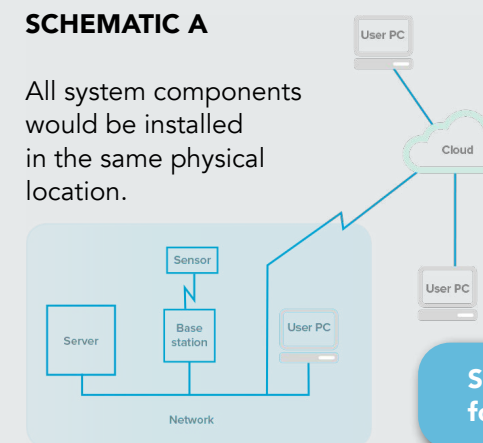
smooth validation protocol execution.

EMS assists with national regulatory compliance requirements: GxP Guidelines, HACCP, FDA 21 CFR Part 11, EU GMP Annex 11, and ISO 22000 food standards.

Deploy the system in a single or multiple geographic locations

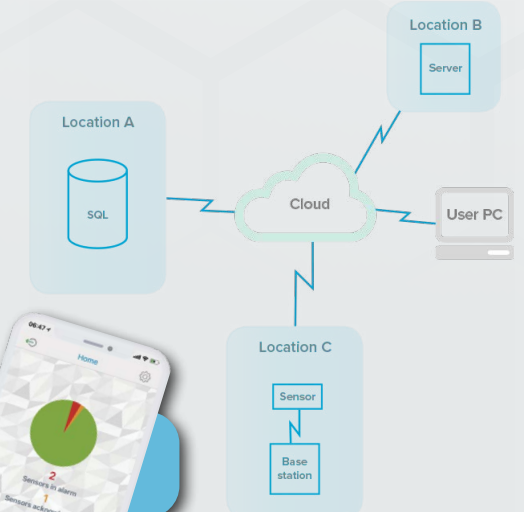
SCHEMATIC A

All system components would be installed in the same physical location.



SCHEMATIC B

Shows how the system components could all be located in different geographic locations using a server and SQL connected via secure connection, e.g. intranet/VPN.



Smartphone App available for ultimate peace of mind

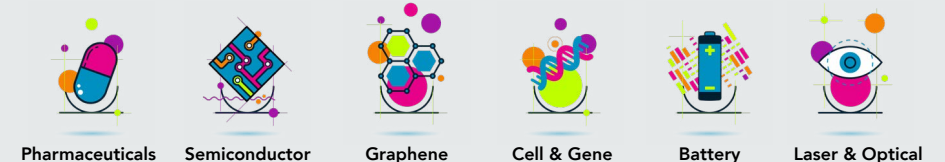
BENEFITS

- 21CFR Part 11 compliant system
- Measurements and data provided for a comprehensive range of critical cleanroom parameters
- Immediate alarm notification for superior safety
- Smartphone app
- Sophisticated, industry-leading software

COMPROMISES

- Significantly more expensive than all the other options, particularly Plus and Lite
- Requires on-going maintenance from Guardtech or associated engineers

APPLICATIONS



GT Scan Max suits the most demanding of applications, typically where particulate needs to be controlled to extremely tight tolerances, including rooms required to comply with cGMP conditions outlined in EU GMP Annex 1 and ISO 14644-1.



GT SCAN PRO

GT Scan Pro is a flush-mounted multifunction pressure transmitter that can display up to three critical atmospheric parameters simultaneously and utilises a newly developed 21 CFR Part 11-compliant software.



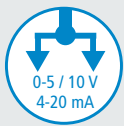
GT Scan Pro is a state-of-the-art wall-mounted panel transmitter that can simultaneously display three parameters including temperature, humidity, air velocity, pressure, atmospheric pressure, CO and CO2 levels, air quality and air flow readings.

This sleek, flush-mounted solution is designed to have minimal impact on

the internal layout of your cleanroom. Its front face is made of a high-grade stainless-steel with an integrated waterproof touchscreen. Equipped with the same technologies as GT Scan Plus, this panel-mounted version provides high reliability and accuracy. In addition, measurements can be recorded and downloaded via intelligent software.



IP66 VHP resistant 316L stainless steel front a



3 configurable analog outputs



1 x input for external probe



3 visual and audible alarms

Available versions: Optional wireless communication module
Integrated wireless communication module

TECHNICAL FEATURES

TECHNICAL DETAILS

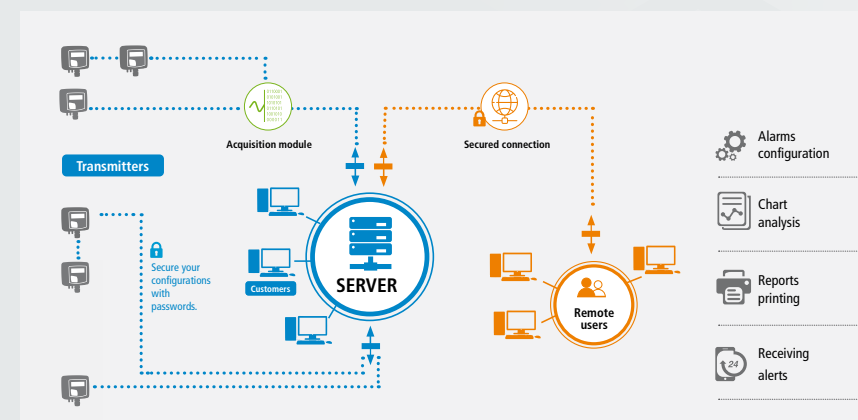
Analogue outputs	3
Wireless communication module	Option
Ethernet Module	N/A
MODBUS Protocol	Yes
Relays	N/A
Visual and audible alarm	3
Type of probes	Interchangeable (not fixed)
Material	Stainless steel

TECHNICAL DETAILS

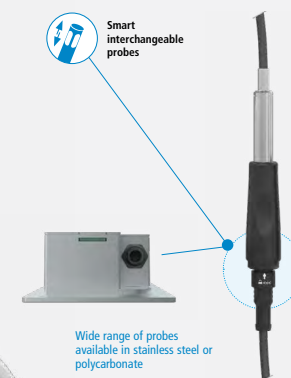
Tightness according to model	IP66
VHP* resistant	Yes
PC Software	Sauermann Control
Mobile App	Sauermann Control
Mounting	Flush mount
Safety	The on-board menu is secured with an access code.
Standards	All sensors meet CE standard and EMC requirements



MONITORING SYSTEM



HIGH ACCURACY PROBES

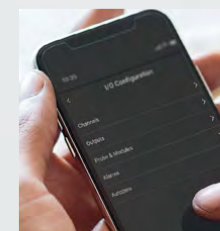


Changing the probe is quick and easy. Automatic recognition.

Humidity - Temperature - Air velocity - Air quality - Differential pressure



GT Scan Pro offers a state-of-the-art software solution for data acquisition environment monitoring. The measurements collected from the transmitters are compliant with FDA 21 CFR Part 11.



GT Scan Pro can be controlled and configured with a computer, smartphone or tablet via an app, allowing the user to manage all the device's parameters via its wireless connection module.

BENEFITS

- Measurements and data provided for an comprehensive range of critical parameters
- Reliable, user-friendly, flush-mounted transmitter hardware
- Utilises a reliable, intelligent software
- Smartphone app provides full device control

COMPROMISES

- Significantly more expensive than GT Scan Lite option
- Requires on-going maintenance from Guardtech or associated engineers
- Measurement options not as wide ranging as GT Scan Max

APPLICATIONS



Medical Device



Healthcare



Oil & Gas



Cell & Gene




Battery




Laser & Optical

GT Scan Pro Environmental Monitoring System (EMS) is suitable for a wide variety of applications in a diverse range of sectors. Whilst it may not provide as comprehensive a range of measurements as GT Access Max, this solution remains a high-performance EMS option for the full range of ISO classifications.



GT SCAN PLUS

Wall-mounted transmitter with user-friendly touchscreen display in robust, attractive plastic housing. Multifunction sensors featuring interchangeable probes that can display and measure parameters simultaneously.






GT Scan Plus provides differential pressure, hygrometry, temperature, air velocity, air flow, air quality and Volatile organic compounds (VOC) readings.

For cleanrooms where highly accurate regulation and monitoring of the air parameters is required, GT Scan Plus transmitters provide reliable measurements and allow you to achieve compliance with the strictest standards.

The GT Scan Plus housing is waterproof, rugged and resistant to vaporised hydrogen peroxide (VHP). It also fea-

tures a colour touchscreen for comprehensive viewing and advanced control of measurement parameters.

In addition, measurements can be recorded and downloaded via an intelligent software solution.

-  **2 inputs for interchangeable probes**
-  **4 visual and audible alarms**
-  **4 configurable analog outputs**
0-5 / 10 V
4-20 mA



External protection against solar radiation and rain fall

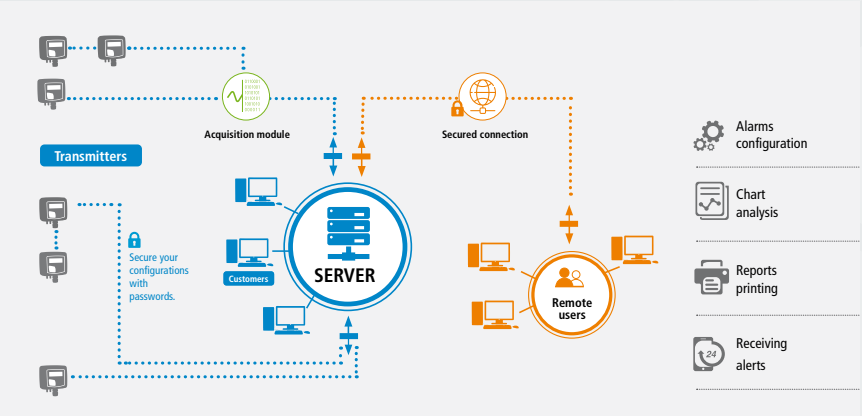
TECHNICAL FEATURES

TECHNICAL DETAILS	
Analogue outputs	4
Wireless communication module	Option
Ethernet Module	N/A
MODBUS Protocol	Yes
Relays	4 (optional)
Visual and audible alarm	4
Type of probes	Interchangeable (not fixed)
Material	ABS (thermoplastic polymer)

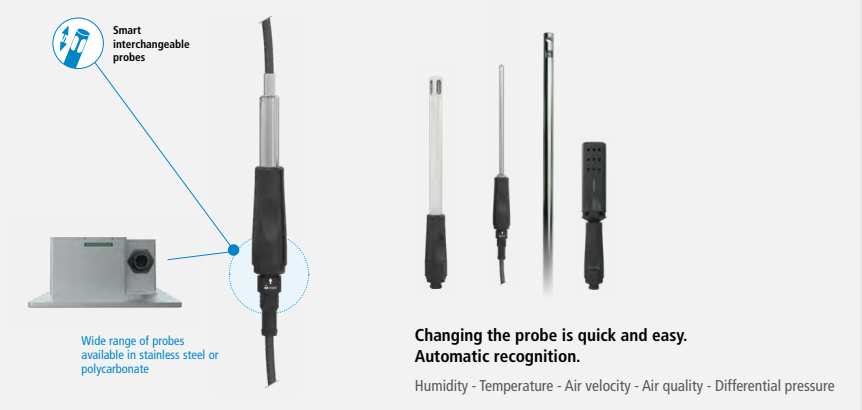
TECHNICAL DETAILS	
Tightness according to model	IP66
VHP* resistant	Yes
PC Software	Sauermann Control
Mobile App	Sauermann Control
Mounting	On wallmounting plate
Safety	The on-board menu is secured with an access code.
Standards	All sensors meet CE standard and EMC requirements



MONITORING SYSTEM



HIGH ACCURACY PROBES



GT Scan Plus offers a state-of-the-art software solution for data acquisition environment monitoring. The measurements collected from the transmitters are compliant with FDA 21 CFR Part 11.



GT Scan Plus can be controlled and configured with a computer, smartphone or tablet via an app, allowing the user to manage all the device's parameters via its wireless connection module.

BENEFITS

- Measurements and data provided for a decent range of critical cleanroom parameters
- Robust hardware that copes well with the rigours of deep cleans
- Interchangeable probes that can display and measure parameters simultaneously

COMPROMISES

- Not a flush-mounted solution
- Far more expensive than GT Scan Lite
- Less detailed data collection than GT Max option

APPLICATIONS



GT Scan Plus is a versatile EMS solution suitable for a significant number of different industries using controlled environments as part of their process. GT Scan Plus is ideal for controlled environments where the option for flush-mounted transmitters is in some way compromised.



GT SCAN LITE



Guardtech's entry-level environmental monitoring system – a versatile analogue Magnehelic differential pressure gauge that indicates positive, negative or differential, accurate to within 1%.

GT Scan Lite is a versatile low differential Magnehelic pressure gauge.

Using a simple, frictionless Magnehelic gauge movement, GT Scan Lite quickly indicates air or non-corrosive gas pressures – either positive, negative (vacuum) or differential. The design resists shock, vibration, over-pressures and is weather-proof to IP67.

Select the High Accuracy (HA) Magnehelic gauge option for an accuracy within 1% of full scale. Also included with the HA option at no extra cost are a mirrored scale overlay and a six-point calibration certificate.

STANDARD



HIGH ACCURACY



TECHNICAL FEATURES

• **Service:** Air and non-combustible, compatible gases (natural gas option).

Note: May be used with hydrogen. Order a Buna-N diaphragm. Pressures must be less than 35 psi.

• **Wetted Materials:** Consult factory. Housing: Die cast aluminium case and bezel, with acrylic cover. Exterior finish is coated grey to withstand 168 hour salt spray corrosion test.

• **Accuracy:** $\pm 2\%$ (-HA model $\pm 1\%$) of FS ($\pm 3\%$ (-HA $\pm 1.5\%$) on -0, -100PA, -125PA, -10MM and $\pm 4\%$ (-HA $\pm 2\%$) on -00, -60PA, -6MM ranges), throughout range at 70°F (21.1°C).

• **Pressure Limits:** -20 in Hg to 15 psig (-0.677 to 1.034 bar); MP option: 35 psig (2.41 bar); HP option: 80 psig (5.52 bar).



• **Enclosure Rating:** IP67.

• **Overpressure:** Relief plug opens at approximately 25 psig (1.72 bar), standard gages only.

• **Temperature Limits:** 20 to 140°F* (-6.67 to 60°C). -20°F (-28°C) with low temperature option.

Size: 4" (101.6 mm) diameter dial face.

• **Mounting Orientation:** Diaphragm in vertical position. Consult factory for

other position orientations.

• **Process Connections:** 1/8" female NPT duplicate high and low pressure taps - one pair side and one pair back.

• **Weight:** 1 lb 2 oz (510 g), MP & HP 2 lb 2 oz (963 g).

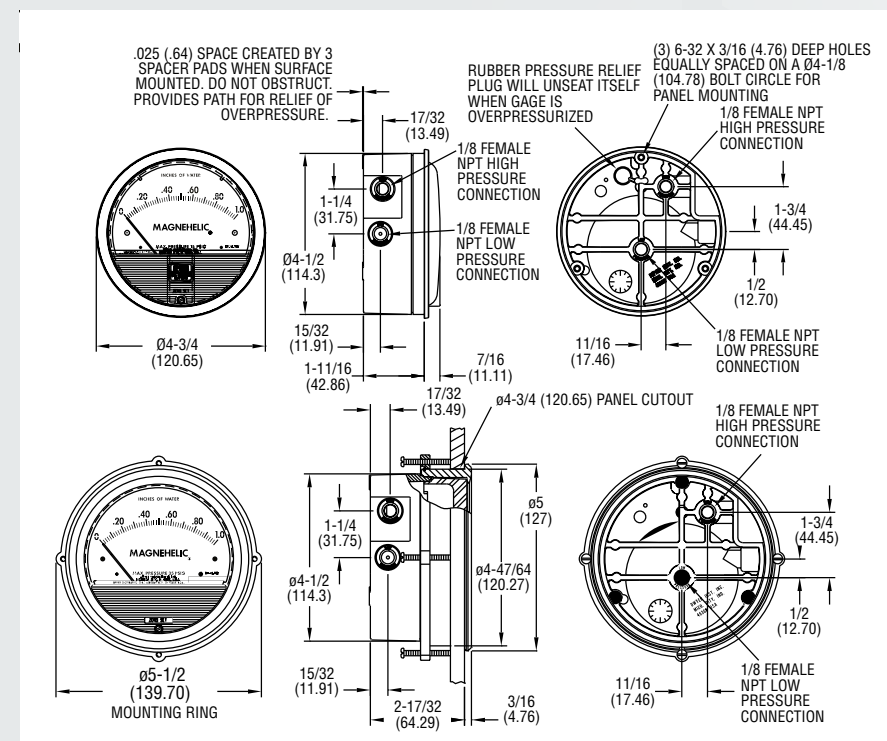
• **Standard Accessories:** Two 1/8" NPT plugs for duplicate pressure taps, two 1/8" pipe thread to rubber tubing adapters with screws. (Mounting and snap ring retainer substituted for three adapters in MP & HP gage accessories.)

• **Agency Approvals:** Meets the technical requirements of EU Directive 2011/65/EU (RoHS II).

Note: -SP models not RoHS approved.



TECHNICAL DRAWINGS



*The blowout plug is not used on models above 180 inches of water pressure, medium or high pressure models, or on gauges which require an elastomer other than silicone for the diaphragm.

DIGIHELIC OPTION

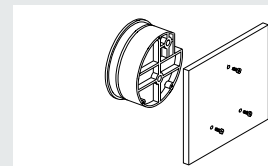


GT Scan Lite is also available as a digihelic option. Featuring a stylish digital display, this 3-in-1 differential pressure controller gives accurate readings for pressure, velocity, and volumetric flow, with optional unidirectional or bidirectional ranges. These units achieve a 1.5% or better accuracy on extremely low ranges, and 0.5% accuracy for ranges at or above 1 in w.c.

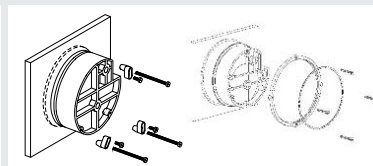
BENEFITS

- Easy-to-read gauge through undistorted plastic face permits viewing from far away
- Patented design provides quick response to pressure changes, meaning no delay in assessing critical situations
- Durable and rugged housing and high-quality components combine to provide long service life
- Flush mounting option

SURFACE MOUNT



FLUSH MOUNT



COMPROMISES

- GT Scan Lite magnehelics are equipped to measure pressure differential only
- Solely analogue device

APPLICATIONS



GT Scan Lite suits the least demanding of applications – most commonly laboratories or non-classified controlled environments – where only differential pressure readings are required for the cleanroom's successful operation.





QUICK-LOOK COMPARISON GUIDE

FEATURES	MAX	PRO	PLUS	LITE
21CFR Part 11 compliant				
Temperature & humidity measurements				
Differential pressure readings				
Supported by computer software				
Suitable for GMP environments				
Digital interfaces				
Air velocity & airflow measurements				
Carbon monoxide & carbon dioxide data				
Atmospheric pressure readings				
Weatherproof solution				
Smartphone app				





Guardtech
group

www.guardtech.com

Guardtech House,
Unit 1A Homefield Road,
Haverhill, Suffolk,
CB9 8QP