# **GAS DETECTION** and MONITORING SOLUTIONS



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Whether you need live monitoring with real-time alerts, gas detection management with historical reports, or automatic instrument exchanges, our iNet® platform will help you to be safer and more productive.

**iNet® Exchange** is a subscription-based service for gas detectors that covers shipping, repair, calibration gas, docking stations, training, and more. With iNet Exchange, you'll always have the monitors you need, right when you need them. Instead of your team spending valuable time fixing broken monitors, we automatically repair and replace your critical safety equipment, eliminating your maintenance pains.

- Always have the equipment you need, when you need it
- Reduce total cost of ownership of your gas detection program by eliminating unexpected repair, replacement and inventory expenses
- Avoid instrument downtime with proactive replacement, typically within 48 hours
- Simplify your gas detection program by managing all equipment, data and documentation from one simple dashboard

See all features and benefits at www.indsci.com/inet-exchange

**iNet® Control** gives you the power to reduce risk by giving you critical insights and complete control over your equipment, data and worker behavior.

- Spend less time updating your gas detection fleet by easily managing everything from monitor settings and firmware to calibration gas in one dashboard
- Access all historical alarm data and generate reports or calibration certificates at any time.
- Manage worker and site safety by tracking critical instrument data
- Reduce risk to your people and your site by identifying and intervening when SOPs aren't followed
- For DSXi Docking Station customers, access to iNet Control is included

See all features and benefits at www.indsci.com/inet-control



**iNet® Now** live monitoring software provides real-time visibility into worker and site safety so you can proactively address hazards and respond quickly in an emergency with actionable information.

- Respond quickly and effectively in an emergency with real-time alerts that show who is in danger, where they're working and what hazards they face
- Get real-time visibility into what's happening across your site through remote monitoring
- Improve site safety and productivity by making decisions based on insights, not instincts

See all features and benefits at www.indsci.com/inet-now

### Join 15,000+ Customer Sites on iNet

Over 95,400,000 Alarm Events | Over 399,000 Gas Detectors 85 Countries





## SAFER® ONE SOFTWARE

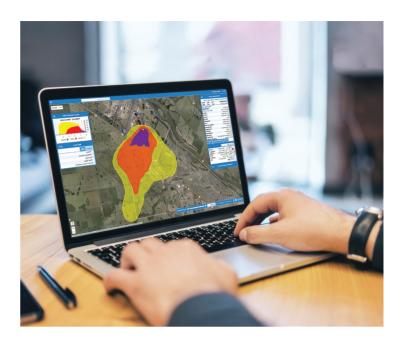
### SAFER One

SAFER One, software for advanced hazard modeling, gives you the real-time information you need to proactively respond to a chemical release and reduce the risk to your people, plant, and community.

Easily identify the source, severity, and community impact of a chemical event by integrating real-time data from on-site gas and weather sensors with Google Maps™. Whether it's for emergency response or everyday use, SAFER One ensures you're prepared for any chemical situation.

- See impacted areas now and in the future on a clear map. Aggregate real-time data from gas sensors, weather stations, and local maps to see all vital information in one place.
- Quickly identify the source of the chemical leak so you can stop it faster.
- Generate detailed reports to share with first responders and community stakeholders. Have confidence that your information is up-to-date and accurate, from start to finish.
- Improve efficiency and accuracy by eliminating tedious manual event analysis processes. Allow our proven, patented algorithms to calculate it for you using real-time data.





SAFER One gives you full visibility into your site by integrating with other solutions.

See below for some common integrations.

#### **WEATHER STATIONS**

PART NO.	DESCRIPTION
18109636- 1010	Weather Station, All-Weather Sensor, Communication Box, Ethernet
18109636- 2010	Weather Station, All-Weather Sensor, Communication Box, Fiber
18109636- 3010	Weather Station, All-Weather Sensor, Communication Box, RF
18109636- 3110*	Weather Station, All-Weather Sensor, Communication Box, RF, Includes Yagi Directional Antenna w/ N-Type Connector
18109636- 3210*	Weather Station, All-Weather Sensor, Communication Box, RF, Inculdes Omni Directional Antenna with Mounting Bracket
17159981	Lufft Weather Sensor, WS700, US & CA only, Configured (has the rain gauge and solar radiation)
17160154	Lufft, Weather Station, WS501-UMB
17160157	Lufft, Raing Gauge, Tipping Bucket, WTB100 (this is needed with 17160154)



# **GDVIEWER**DIRECT READING GAS DETECTION SYSTEM

- There is no need for additional network equipment, and out-of-the box direct connection allowing simple operation
- Real-time photography, GPS Stamp, and paperless work permit process
- Remote monitoring of the working site and real-time video uploads
- Automated e-forms/emails
- Simultaneous reading of (up to) 5 devices, and active alarm notifications

The Gas Detection Viewer can be wirelessly connected to on-site portable gas detectors and area monitors via the operators' explosion-proof mobile phones, allowing for real-time data reading. When the instrument generates an alarm, you have immediate access to detailed alarm information. When used in conjunction with the camera function and GPS positioning function, the system can generate electronic forms of onsite images and geographic information and send them to the remote monitoring center, allowing for paperless work permit processing. Furthermore, by wirelessly uploading videos of the work site in real time, the system achieves effective video monitoring and management of the entire process on the job site.



#### Video Monitoring

Real-time whole-process video monitoring of the working process, video wireless transmission, and real-time upload are all possible without the purchase or installation of additional data transmission equipment.





## Photo Documentation

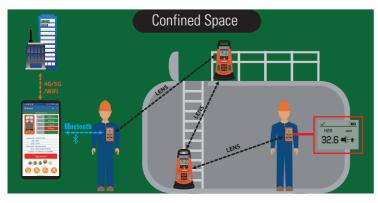
The photo documentation function can collect on-site information by photos/videos taken by the explosion-proof mobile phones and recognizing the operator's on-site presence. The data, which includes the location, time, and identity of a staff, will be uploaded to the cloud.



#### **Electronic Permit**

Automatically extract on-site gas sampling readings, operator information, GPS data, and combining the on-site picture upload function to collect, record, and upload on-site working conditions, improving permit signing efficiency and standardizing operator behavior.

#### **TYPICAL APPLICATION**





#### Sampling Aid

To ensure the operators' safety, the sampling time is automatically calculated based on the length of the sampling tube; paperless records and on-site photos are taken to ensure that the operators apply for work permits in accordance with regulations.



## **TANGO® TX2** TWO-GAS MONITOR

Protect workers, reduce false alarms, and spend less time managing your gas detector fleet with the Tango® TX2. The Tango TX2 is the most accurate two-gas monitor featuring individual sensors that increase alarm accuracy. A two-year runtime and replaceable battery simplify gas detection management by eliminating the need for charging infrastructure.

#### INSTRUMENT CONFIGURATIONS

INTOTAL	CONTROLL
PART NUMBER	DESCRIPTION
TX2-12011	Tango TX2, CO, H₂S, English
TX2-14011	Tango TX2, CO, NO <sub>2</sub> , English
TX2-15011	Tango TX2, CO, SO <sub>2</sub> , English
TX2-1G011	Tango TX2, CO, CO Low , English
TX2-24011	Tango TX2, H <sub>2</sub> S, NO <sub>2</sub> , English
TX2-25011	Tango TX2, H <sub>2</sub> S, SO <sub>2</sub> , English
TX2-2G011	Tango TX2, H₂S, CO Low, English
TX2-45011	Tango TX2, NO <sub>2</sub> , SO <sub>2</sub> , English
TX2-4G011	Tango TX2, NO <sub>2</sub> , CO Low, English
TX2-5G011	Tango TX2, SO <sub>2</sub> , CO Low, English

ACCESSORIES	8
18109330-ABC	DSX™ Docking Station for Tango TX2  A − DSX Mode: 0 = DSX Standalone, 1 = DSXi Cloud-connected, 2 = DSX-L Local Server  B − Number of Gas Inlet Ports: 3 = 3 Ports, 6 = 6 Ports  C − Power Cord Type: 1 = North America, 2 = Europe, 3 = Australia, 4 = UK
17154367	Replacement battery
18109171	Soft nylon case, Black
18109239	Soft nylon case, Safety Orange
18109218	Dust barrier kit, 5 pack
18109230	Water barrier kit, 5 pack
18109238	CalCup and tubing kit
17154484	Suspender clip
17154915-0	AlarmAmp, Black
17154915-1	AlarmAmp, Safety Orange



#### SPECIFICATIONS\*

#### **INSTRUMENT WARRANTY**

Guaranteed for Life™. Warranted for as long as the instrument is supported by Industrial Scientific Corporation (excludes sensors, batteries, and filters). CO and H<sub>2</sub>S sensors are warranted for three years. All other sensors are warranted for two years.

#### DISPLAY

Segment liquid crystal display (LCD)

#### **KEYPAD**

Two buttons

#### **CASE MATERIALS**

Case top: Polycarbonate with a protective rubber overmold Case bottom: Conductive polycarbonate

Three strobe-emitting visual alarm LEDs (two red; one blue) 100 decibel (dB) audible alarm at a distance of 10 cm (3.94 in); Vibration alarm

99 x 51 x 35 mm (3.9 x 2.0 x 1.4 in)

#### WEIGHT

126.0 g (4.4 oz)

#### **TEMPERATURE RANGE**

-40 °C to 50 °C (-40 °F to 122 °F) \*\*

#### **HUMIDITY RANGE**

15% to 95% Non-condensing (continuous)

CO, CO/H<sub>2</sub>, H<sub>2</sub>S, NO<sub>2</sub>, SO<sub>2</sub> – Electrochemical sensor technology

#### SENSOR MEASURING RANGES

Carbon Monoxide (CO):

Carbon Monoxide (CO/H<sub>2</sub> low): 0 to 1,000 ppm in 1 ppm increments

Undragen Sulfide (H<sub>2</sub>S):

0.0 to 500.0 ppm in 0.1 ppm increments 0.0 to 150.0 ppm in 0.1 ppm increments Nitrogen Dioxide (NO<sub>2</sub>): Sulfur Dioxide (SO<sub>2</sub>): 0.0 to 150.0 ppm in 0.1 ppm increments

#### **BATTERY**

3.6 V Primary lithium-thionyl chloride (Li-SOCl<sub>2</sub>); 1.5AH, 2/3AA; replaceable; non rechargeable; always on; up to 2-year run time depending on operating conditions

#### **DATA LOGGING**

3 months at 10-second intervals

#### **EVENT LOGGING**

60 alarm events

#### **CERTIFICATIONS**

DIRECTIVE OR CB AREA CLASSIFICATION STANDARDS

ATEX1: Ex ia I Ma:

Ex ia IIC T4 Ga; Equipment Group and Category: I M1 and II 1G,

EN 60079-0: 2012 2012 EN 60079-11: EN 50303: 2000

IECEx3 Ex ia I Ma, Ex ia IIC T4 Ga

IEC 60079-0: 2011 IEC 60079-11:2011

UL (C-US)4: Class I, Groups A, B, C, and D; Class II, Groups E, F, and

G; T4; Exia Class I, Zone O, AEx ia IIC T4

UL 913 8th Ed. UL 60079-0 6th Ed. UL 60079-11 6th Ed. CSA C22.2 No. 157

> See all features and benefits at www.indsci.com/tango-tx2



## M40 **FOUR-GAS MONITOR**

- 1 to 4 gas monitoring for O<sub>2</sub>, H<sub>2</sub>S, CO & combustible gases
- 18-hour runtime with lithium-ion battery
- Includes vibrating, 90 dB audible, and LED visual alarms
- Two-year, all inclusive warranty

Industrial Scientific is pleased to offer the M40, a versatile multi-gas monitor capable of detecting CO, H<sub>2</sub>S, O<sub>2</sub>, and combustible gases for a wide variety of hazardous and confined space applications.

The M40 is housed in a rugged, impact-resistant case to provide superior performance and durability in harsh environments and resistance to radio-frequency and electromagnetic interference. Its four-button interface provides simple, intuitive operation and calibration, and the M40's five-second "Off" feature prevents unintentional shut-offs. The unit's compact size and economical price make it an ideal personal monitoring instrument.

Other standard features include a vibrating alarm, lithiumion battery, peak/hold readings, large LCD, 75 hour datalogging capacity, and belt clip. An optional compact parasitic sampling pump enables remote sampling from up to 50 feet away. The M40 carries a two-year warranty.

#### **SPECIFICATIONS**

High-visibility, impact resistant composite – RFI, EMI and ingress protection tested and approved

#### DIMENSIONS

11.2 cm x 6.5 cm x 3.6 cm

#### WEIGHT

243 g Weight with pump: 326 g

Combustible Gases — Catalytic Diffusion Oxygen and Toxic Gases — Electrochemical

#### **MEASURING RANGES**

0 to 100% LEL in 1% increments Combustibles (LEL)

0 to 5% of volume in 0.1% increments (M40 • M only) 0 to 30% of volume in 0.1% increments Methane (CH<sub>4</sub>)

Oxvaen (0<sub>2</sub>) Carbon Monoxide (CO) 0 to 999 ppm in 1 | Hydrogen Sulfide (H<sub>2</sub>S) 0 to 500 ppm in 1 | The M40 features LEL over-range protection 0 to 999 ppm in 1 ppm increments 0 to 500 ppm in 1 ppm increments

#### **POWER SOURCE**

Rechargeable lithium-ion integral battery

#### RUNTIME

18 hour - instrument (non-alarm)

12 hour — instrument with pump (non-alarm)

Large LCD provides simultaneous and continuous readout of up to all four gases. Large, high-contrast characters, graphic icons and unique amber backlight provide clear display visibility in low-light conditions.

Vibrating, 90 dB audible and ultra-bright LED visual alarms. High/low, STEL, TWA and low battery alarms. Flow alarm indicator when used with optional SP40 pump.

#### **TEMPERATURE RANGE**

-20° to 50°C (-4° to 122°F)

#### **HUMIDITY RANGE**

15 to 95% RH, typical, 0 to 99% RH intermittent (non-condensing)

#### **IP RATING**

IP65

#### CERTIFICATIONS

Ex ia IIC T4 Gb; Ex db ia IIC T4 Gb (with Catalytic Sensor) IECEx:

/ Ex ia IIC T4 Gb; Ex d ia IIC T4 Gb

China Ex; China MA; China CPA





## VENTIS® MX4 FOUR-GAS MONITOR

The Ventis® MX4 is a four-gas monitor with the portability and size of a single-gas monitor. Eliminate the need for extra monitors and transition seamlessly from personal monitoring to confined space entry with the Ventis® Slide-on Pump—ideal for operators who wear their gas monitors primarily for personal protection but occasionally require a pump for confined space entries.

- Detect up to four gases with a wide range of sensor options
- Select alarm set points, set latch alarms, disable instrument shutdown while in alarm, and more
- Save time and reduce human error with maintenance and usage data available from iNet Control software
- Available with or without an integral pump, or with the Ventis Slide-on Pump for ultimate flexibility
- Non-pumped instruments compatible with 12-hour, 18-hour, or 20-hour batteries

See all features and benefits at www.indsci.com/ventis-mx4

#### **SPECIFICATIONS\***

#### WARRANTY

Two-year warranty, including sensors and battery

#### **CASE MATERIAL**

Polycarbonate with protective rubber overmold

#### **DIMENSIONS**

 $103 \times 58 \times 30$  mm (4.1 x 2.3 x 1.2 in) without Pump, Lithium-ion battery version  $172 \times 67 \times 66$  mm (6.8 x 2.6 x 2.6 in) with Pump, Lithium-ion battery version

#### WFIGHT

182 g (6.4 oz) without Pump, Lithium-ion battery version 380 g (13.4 oz) with Pump, Lithium-ion battery version

#### **POWER SOURCE/RUN TIME**

Rechargeable Slim Extended Lithium-ion Battery (18 hours typical @ 20 °C) without Pump

Rechargeable lithium-ion battery

(12 hours typical @ 20 °C) without Pump

Rechargeable Extended-Range Lithium-ion Battery

(20 hours typical @ 20  $^{\circ}\text{C})$  without Pump

(12 hours typical @ 20 °C) with Pump

Replaceable AAA Alkaline Battery

(8 hours typical @ 20 °C) without Pump

(4 hours typical @ 20 °C) with Pump

#### **ALARMS**

Ultra-bright LEDs, loud audible alarm (95 dB at 30 cm), and vibrating alarm

#### **DISPLAY/READOUT**

Backlit Liquid Crystal Display (LCD)

#### **TEMPERATURE RANGE**

-20 °C to 50 °C (-4 °F to 122 °F) \*\*

#### **HUMIDITY RANGE**

15% to 95% non-condensing (continuous)

#### **SENSORS AND MEASURING RANGES**

### SUPPLIED WITH MONITOR

Calibration Cup (without Pump), Sample Tubing (with Pump)

<sup>\*\*</sup> Operating temperatures above 50 °C (122 °F) may cause reduced instrument accuracy. Operating temperatures below -20 °C (-4 °F) may cause reduced instrument accuracy and affect display and alarm performance. See Product Manual for details.



<sup>\*</sup>These specifications are based on performance averages and may vary by instrument.



## **VENTIS® PR05**MULTI-GAS MONITOR

Detect up to five gases simultaneously with the rugged, wireless, Ventis® Pro5 Multi-Gas Monitor. With Ventis Pro5, safety goes beyond the gas detector whether you need team-based alarm sharing, remote monitoring with location details, or both. The monitor is also backed by a Guaranteed for Life $^{\text{TM}}$  warranty.

- Eliminate the need for two pieces of equipment by using Ventis Pro5 for personal monitoring and confined space entry.
- Train workers on one, multi-purpose gas monitor and reduce the risk and investment of having different devices in the field.
- Improve team and site safety by locally sharing alarms and gas readings between wirelessly connected Ventis Pro5 monitors.
- Get real-time location and alarm data directly from Ventis Pro5 gas monitors to a designated safety contact with the optional cellular or wi-fi battery pack.
- Reinforce safe behavior with programmable alarm action messages like "EVACUATE" or "VENTILATE" based on alarm level.
- Simplify the user experience with the ability to hide unnecessary screens based on user needs, role, industry, or site.

See all features and benefits at www.indsci.com/ventis-pro5

## Sensor & Configuration Options

The Ventis Pro5 offers sensor and configuration options for multiple industries and applications, including standard and non-standard 4-gas, 5-gas, and a methane IR sensor, making it a cost-effective option for personal protection and confined space applications.

LEL (CH4% VoI)	CO	IR CO <sub>2</sub>	HCN
LEL (Methane)	CO/H <sub>2</sub> Low	IR CO <sub>2</sub> /CH <sub>4</sub>	NH3
LEL (Pentane)	CO/H <sub>2</sub> S	IR CO <sub>2</sub> /LEL	PH₃
O <sub>2</sub>	SO <sub>2</sub>	IR HC	VOC(PID)
H <sub>2</sub> S	NO <sub>2</sub>	ULP IR CH4	
Cl2	IR CH4	ULP IR HC	

#### SPECIFICATIONS\*

#### WARRANTY

Guaranteed for Life $^{\text{TM}}$ . Warranted for as long as the instrument is supported by Industrial Scientific Corporation (Excludes sensors, batteries, and filters). Pump and  $O_2$ , LEL, CO, and  $H_2S$  sensors warranted for four years. PID sensor warranted for one year. All other sensors and batteries are warranted for two years.

#### **CASE MATERIAL**

Polycarbonate with protective rubber overmold

#### **DIMENSIONS**

104 x 58 x 36 mm (4.1 x 2.3 x 1.4 in) without Pump 172 x 67 x 65 mm (6.8 x 2.6 x 2.6 in) with Pump 104 x 58 x 61 mm (4.1 x 2.3 x 2.4 in) with wi-fi Battery

#### WEIGHT

200 g (7.05 oz); 390 g (13.76 oz), Pump; 243 g (8.5 oz), with wi-fi Battery

#### POWER SOURCE/RUN TIME

Rechargeable Slim Extended Lithium-ion battery (no Pump option) (18 hours typical @ 20 °C) with LEL | (54 hours typical @ 20 °C) with IR

Rechargeable Lithium-ion battery (no Pump option) (12 hours typical @ 20 °C) with LEL  $\,\mid\,$  (36 hours typical @ 20 °C) with IR

Rechargeable Extended-Range Lithium-ion battery with LEL

(23 hours typical @ 20 °C) without Pump | (18 hours typical @ 20 °C) with Pump Rechargeable Extended-Range Lithium-ion battery with IR

(72 hours typical @ 20 °C) without Pump | (32 hours typical @ 20 °C) with Pump Rechargeable wi-fi Lithium-ion battery (no Pump option) (16 hours typical @ 20 °C) with LEL

#### ALARMS

Four visual alarm LEDs (two red, two blue) 95 decibel (dB) audible alarm at a distance of 10 cm (3.94 in) vibration alarms

**DISPLAY/READOUT** Backlit liquid crystal display (LCD)

**KEYPAD** Two buttons for operation, dedicated panic button

**INGRESS PROTECTION** IP68 (submersion at 1.5 meters for 1 hour)

**TEMPERATURE RANGE** -40 °C to 50 °C (-40 °F to 122 °F) \*\*

**HUMIDITY RANGE** 15% to 95% non-condensing (continuous)

**EVENT LOGGING** 60 alarm events

**DATA LOG** At least 3 months at 10-second intervals

#### SENSOR RANGES

CATALYTIC BEAD Combustible Gases: Methane (CH<sub>4</sub>):

ELECTROCHEMICAL Ammonia (NH<sub>3</sub>): Carbon Monoxide (CO): Carbon Monoxide (CO/H<sub>2</sub> low):

Carbon Monoxide (CO/H<sub>2</sub> low): Carbon Monoxide/Hydrogen Sulfide:

Chlorine (Cl<sub>2</sub>): Hydrogen Sulfide (H<sub>2</sub>S): Hydrogen Cyanide (HCN): Nitrogen Dioxide (NO<sub>2</sub>): Oxygen (O<sub>2</sub>) (Standard/Long-Life): Phosphine (PH<sub>3</sub>): Sulfur Dioxide (SO<sub>2</sub>):

INFRARED

Carbon Dioxide (CO<sub>2</sub>): Methane (CH<sub>4</sub>):

Carbon Dioxide/Combustible

Carbon Dioxide/Methane:

Hydrocarbons Hydrocarbon (HC ULP) Methane (CH<sub>4</sub> ULP) LEL: 0-100% LEL in 1% increments CO<sub>2</sub>: 0-5% vol in 0.01% increments CH<sub>4</sub>: 0-5% vol in 0.01% increments CH<sub>4</sub>: 5-100% vol in 0.1% increments

0-100% LEL in 1% increments

0-5% of vol in 0.01% increments

0-500 ppm in 1 ppm increments 0-2,000 ppm in 1 ppm increments 0-1,000 ppm in 1 ppm increments CO: 0-1,500 ppm in 1 ppm increments H<sub>2</sub>S: 0-500 ppm in 0.1 ppm increments

0-50ppm in 0.1 ppm increments 0-500 ppm in 0.1 ppm increments

0-30 ppm in 0.1 ppm increments 0-150 ppm in 0.1 ppm increments 0-30% of vol in 0.1% increments

0-10 ppm in 0.01 ppm increments

0-150 ppm in 0.1 ppm increments

0-5% vol in 0.01% increments

0-5% vol in 0.01% increments 5-100% vol in 0.1% increments

CO<sub>2</sub>: 0-5% vol in 0.01% increments

0-100% LEL in 1% increments 0-100% LEL in 1% increments 0-100% LEL in 0.1% increments 5.1-100% vol in 0.1% increments

PHOTOIONIZATION VOC (10.6 eV):

0-2,000 ppm in 0.1 ppm increments

#### COMMUNICATION

LENS WIRELESS MESH NETWORK Frequency: ISM license-free band (2.405 - 2.480 GHz) Max Peers: 25 devices per network group

Range: 100 m (300 ft) line of sight, face-to-face Encryption: AES-128 | Approvals: FCC Part 15, IC, CE/RED, others†

WI-FI: 802.11 b/g/n 2.4GHz wi-fi with WPA2 security

<sup>\*</sup>These specifications are based on performance averages and may vary by instrument.

<sup>\*\*</sup> Operating temperatures above 50 °C (122 °F) may cause reduced instrument accuracy. Operating temperatures below -20 °C (-4 °F) may cause reduced instrument accuracy and affect display and alarm performance. See Product Manual for details.

<sup>†</sup> See www.indsci.com/wireless-certifications for country-specific wireless approvals and certifications.



## MX6 iBRID® MULTI-GAS MONITOR

The MX6 iBrid® is the most adaptable six-gas monitor on the market. With hundreds of possible sensor combinations and a robust list of available configuration settings, the MX6 iBrid gas detector is ready to monitor oxygen, toxic and combustible gases, and volatile organic compounds (VOCs).

- Flexible sensor configurations monitor up to six gases simultaneously
- Prescreen entries for benzene with an optional convertible kit
- Optional integral sampling pump with strong 30.5 meter (100 feet) sample draw
- Full-color LCD for easy visibility in all lighting conditions

See all features and benefits at www.indsci.com/mx6



#### **SPECIFICATIONS\***

#### WARRANTY

Guaranteed for Life \*\*. Warranted for as long as the instrument is supported by Industrial Scientific Corporation

#### **CASE MATERIAL**

Lexan/ABS/stainless steel with protective rubber overmold

#### **DIMENSIONS**

135 x 77 x 48 mm (5.3 x 3.0 x 1.9 in) without Pump 193 x 77 x 56 mm (7.6 x 3.1 x 2.2 in) with Pump

#### **WEIGHT**

409 g (14.4 oz) typical without Pump; 511 g (18.0 oz) typical with Pump

#### **POWER SOURCE/RUN TIMES**

Rechargeable Extended-Range Lithium-ion Battery (36 hours) without Pump Rechargeable Extended-Range Lithium-ion Battery (20 hours) with Pump Replaceable AA Alkaline Battery (10.5 hours) without Pump

#### **DISPLAY/READOUT**

Color Graphic Liquid Crystal Display

#### **TEMPERATURE RANGE**

-20 °C to 55 °C (-4 °F to 131 °F)

#### **HUMIDITY RANGE**

15% to 95% non-condensing (continuous)

SENSORS AND MEASURING RANGE	S	
SENSOR	RANGE	RESOLUTION
CATALYTIC BEAD		
Combustible Gas	0-100% LEL	1%
Methane (CH <sub>4</sub> )	0-5% vol	0.01%
ELECTROCHEMICAL		
Ammonia (NH <sub>3</sub> )	0-500 ppm	1
Carbon Monoxide (CO)	0-1,500 ppm	1
Carbon Monoxide (CO High Range)	0-9,999 ppm	1
Carbon Monoxide (C0/H <sub>2</sub> Low)	0-1,000 ppm	1
Chlorine (Cl <sub>2</sub> )	0-50 ppm	0.1
Chlorine Dioxide (CIO <sub>2</sub> )	0-1 ppm	0.01
Carbon Monoxide/	CO: 0-1,500 ppm	1
Hydrogen Sulfide (COSH)	H <sub>2</sub> S: 0-500 ppm	0.1
Hydrogen (H <sub>2</sub> )	0-2,000 ppm	1
Hydrogen Chloride (HCI)	0-30 ppm	0.1
Hydrogen Cyanide (HCN)	0-30 ppm	0.1
Hydrogen Sulfide (H <sub>2</sub> S)	0-500 ppm	0.1
Nitric Oxide (NO)	0-1,000 ppm	1
Nitrogen Dioxide (NO <sub>2</sub> )	0-150 ppm	0.1
Oxygen $(O_2)$	0-30% vol	0.1%
Phosphine (PH <sub>3</sub> )	0-5 ppm	0.01
Phosphine (PH <sub>3</sub> High Range)	0-1,000 ppm	1
Sulfur Dioxide (SO <sub>2</sub> )	0-150 ppm	0.1
INFRARED		
Hydrocarbons	0-100% LEL	1%
Methane (CH <sub>4</sub> % vol)	0-100% vol	1%
Methane CH <sub>4</sub> % LEL)	0-100% LEL	1%
Carbon Dioxide (CO <sub>2</sub> )	0-5% vol	0.01%
PHOTOIONIZATION		
VOC	0-2,000 ppm	0.1

#### **SUPPLIED WITH MONITOR**

Universal Charger, Nylon Carrying Case, Belt Clip, Calibration Cup, Wrist Strap, Quick Start Guide, Dust Filter/Water Stop (with Pump), Sample Tubing (with Pump).

#### LANGUAGE

English, Portuguese, French, Indonesian, Spanish, Russian, German, Polish, Italian, Czech, and Dutch

- \* These specifications are based on performance averages and may vary by instrument.
- \*\*Specific terms of the Guaranteed for Life™ Program are included with all products and are available upon request.



## **RADIUS® BZ1** ARFA MONITOR

The Radius® BZ1 Area Monitor is a rugged area monitor that detects up to seven gases and connects your entire worksite. It can be deployed in seconds for emergency response. Radius BZ1 shares readings and alarms with other units and personal gas monitors through LENS Wireless, allowing you to create a dynamic safety network that changes with the needs of your operations.

- Detect up to seven gases simultaneously with 18 sensor options, including PID
- Know what's happening at a distance thanks to the largest display of any area monitor and customizable alarm action messages like "EVACUATE" or "VENTILATE"
- Gain real-time visibility and respond faster in an emergency by pairing with the RGX® Gateway and iNet Now for live monitoring
- DualSense® Technology increases worker safety by using two sensors to detect the same gas
- SafeCore® Module houses all critical technology out of the elements for fewer false alarms

See all features and benefits at www.indsci.com/radius



#### **SPECIFICATIONS\***

#### WARRANTY

Two-year warranty, including Sensors and Battery

**CASE MATERIAL** Impact-resistant polycarbonate alloys

**DIMENSIONS** 29 x 29 x 55 cm (11.5 x 11.5 x 21.5 in)

**WEIGHT** 7.5 kg (16.5 lb)

#### POWER SOURCE/RUN TIME

Rechargeable Nickel-Metal Hydride (NiMH) Battery

7 days (168 hours) typical @ 20 °C, without Pump, with Wireless 3.5 days (84 hours) typical @ 20 °C, with Pump, with Wireless

30 days (720 hours) typical @ 20 °C, Electrochemical Sensors only, without Pump, with Wireless

≤8 hour recharge time

#### **ALARMS**

108 decibel (dB) at 1 m (3.3 ft) redundant audible alarms Redundant, visual alarm LEDs (red and blue)

#### DISPLAY/READOUT

11.2 cm (4.4 in) monochrome backlit graphical Liquid Crystal Display (LCD)

**KEYPAD** Three buttons

#### **INGRESS PROTECTION IP66**

TEMPERATURE RANGE -20 °C to 55 °C (-4 °F to 131 °F)

#### **HUMIDITY RANGE**

15% to 95% non-condensing (continuous)

#### **MEASURING RANGES**

CATALYTIC BEAD

Combustible Gases: 0-100% LEL in 1% increments

**ELECTROCHEMICAL** 

Ammonia (NH<sub>3</sub>): Carbon Monoxide (CO): Carbon Monoxide (CO High Range):

Carbon Monoxide (CO/H2 Low): Carbon Monoxide/Hydrogen Sulfide:

Chlorine (Cl<sub>2</sub>): Hydrogen (H<sub>2</sub>): Hydrogen Sulfide (H2S): Hydrogen Cyanide (HCN): Nitrogen Dioxide (NO<sub>2</sub>): Oxvaen  $(0_2)$ : Sulfur Dioxide (SO<sub>2</sub>): Phosphine (PH<sub>3</sub>): Nitric Oxide (NO): Chlorine Dioxide (CIO<sub>2</sub>)

Hydrogen Chloride (HCI) INFRARED

Carbon Dioxide (CO<sub>2</sub>): Hydrocarbon (HC) Methane (CH<sub>4</sub>)

**PHOTOIONIZATION** VOC (10.6 eV):

0-500 ppm in 1 ppm increments 0-1,500 ppm in 1 ppm increments 0-9,999 ppm in 1 ppm increments 0-1,000 ppm in 1 ppm increments CO: 0-1,500 ppm in 1 ppm increments H<sub>2</sub>S: 0-500 ppm in 0.1 ppm increments 0-50 ppm in 0.1 ppm increments 0-2,000 ppm in 1 ppm increments 0-500 ppm in 0.1 ppm increments

0-30 ppm in 0.1 ppm increments 0-150 ppm in 0.1 ppm increments 0-30% vol in 0.1% increments 0-150 ppm in 0.1 ppm increments 0-5 ppm in 0.01 ppm increments 0-1000 ppm in 1 ppm increments 0-30 ppm in 0.1 ppm increments 0-30 ppm in 0.1 ppm increments

0-5% vol in 0.01% increments 0-100% LEL in 1% LEL increments 0-100% LEL in 1% LEL increments

0-2,000 ppm in 0.1 ppm increments

**EVENT LOGGING:** 60 alarm events

**DATA LOG:** At least 3 months at 10-second intervals

**PUMP:** Optional integral pump, up to 30.48 m (100 ft) sample draw

#### **WIRELESS**

Optional LENS Wireless, mesh network

Frequency: ISM license-free band (2.405 - 2.480 GHz)

Max Peers: 25 devices per network group / 10 independent, configurable network groups

Range: 300 m (~1,000 ft) line of sight

Encryption: AES-128

Approvals: FCC Part 15, IC, CE/RED, others \*\*

#### SUPPLIED WITH MONITOR

Calibration Cup (without Pump), Sample Tubing and Pump Inlet Water Barrier (with Pump), Hand Tool, Charging Power Supply and Region-Specific Cord

<sup>\*</sup> These specifications are based on performance averages and may vary by instrument.

<sup>\*\*</sup> See www.indsci.com/wireless-certifications for country-specific wireless approvals and certifications.



## T40 II SINGLE GAS MONITOR

- Robust, compact, and light
- Fast sensor response
- Multiple sensor range options with high accuracy
- Replaceable battery with two-year runtime

The T40 II single gas monitor is primarily used to protect personnel lives by detecting the presence of hydrogen sulfide, carbon monoxide or oxygen.

The T40 II instrument is robust and light, with an IP68 level of ingress protection, and is suitable for working in changing, hazardous environment. The industry-leading ultra-fast T90 response time can detect gas hazards on the job in real time to ensure worker safety, saving valuable time. To meet the needs of long-term operation, the high-performance lithium battery can operate under extreme weather conditions continuously for two years.

There are two visual red alarm LEDs, in addition to both an audible and vibration alarm when the gas concentrations exceed the high, low, TWA, or STEL alarm preset values.







See all features and benefits at www.indsci.com/t40ii

#### **SPECIFICATIONS**

#### **INSTRUMENT WARRANTY**

T40 II monitor carries a two-year warranty from the date of shipment and is supported by Industrial Scientific Corporation (excludes batteries, clips, calibration caps and filters).

#### **DISPLAY**

Segment LCD

#### KEYPAD

Two buttons

#### **CASE MATERIALS**

Polycarbonate with a protective rubber over-mold

Visual (two red LEDs); Audible (95db); Vibration, TWA, STEL

#### **DIMENSIONS / WEIGHT**

82 x 60 x 27 mm ( 3.23" x 2.36" x 1.07" ) / 85g (3oz)

#### **EVENT LOGGING**

Up to 100 alarm events and 30 error events

#### **INGRESS PROTECTION**

IP 66/68

#### TEMPERATURE RANGE

-40 °C to 50 °C (-40 °F to 122 °F)

#### **HUMIDITY RANGE**

5% to 95% Non-condensing

#### **SENSORS**

CO, H<sub>2</sub>S, O<sub>2</sub> – Electrochemical sensor technology

SURING RANGES			
Range	Resolution	T90	
0-1000 ppm	1 ppm	<10s	
0-2000 ppm	1 ppm	<10s	
0-100 ppm	0.1 ppm	<10s	
0-200 ppm	0.1 ppm	<10s	
	0.1 ppm	<10s	
0-30 %vol	0.1 %vol	<10s	
	<b>Range</b> 0-1000 ppm 0-2000 ppm 0-100 ppm 0-200 ppm 0-500 ppm	Range         Resolution           0-1000 ppm         1 ppm           0-2000 ppm         1 ppm           0-100 ppm         0.1 ppm           0-200 ppm         0.1 ppm           0-500 ppm         0.1 ppm           0-500 ppm         0.1 ppm	Range         Resolution         T90           0-1000 ppm         1 ppm         <10s

#### **BATTERY**

3.6 V Primary Lithium-thionyl chloride (Li-SOCl<sub>2</sub>), 1.5AH, 2/3AA, replaceable

Up to two years of runtime, depending on operating conditions, the amount of time the unit is in alarm, and the use of the unit's confidence indicator.

## CERTIFICATIONS

International:

IFCFX: Ex ia IIC T4 Ga; Ex ia I Ma

#### North America:

Class I, Division 1, Groups A, B, C, D T4 Class I, Zone O, AEx ia IIC T4 Ga Ex ia IIC T4

CSA:

Class I, Division 1, Groups A, B, C, D T4

Europe: ATEX: CE: Ex ia IIC T4 Ga; Ex ia I Ma Directive 2014/30/EU, EN50270

T-DOCK

Directive 2011/65/EU and 2015/863/EU

#### China:

China Ex: Ex ia IIC T4 Ga China MA:Ex ia I Ma China CPA

AUTOMATED GAS DETECTOR MANAGEMENT SYSTEM



## TANGO® TX1 SINGLE GAS MONITOR

The Tango® TX1 is among the safest single gas detectors available today. Patented DualSense® Technology includes two of the same sensor for the most accurate reading and to ensure the monitor is functional and reliable, regardless of current bump test practices.

- · Lightweight and wearable personal gas monitor
- Two-year run time
- Optional AlarmAmp<sup>™</sup> increases audible alarms to 110dB
- Guaranteed for Life<sup>™</sup> warranty

## **DualSense Technology**

The Tango TX1, Ventis Pro5, Radius BZ1, and SafeCore Module incorporate revolutionary patented DualSense Technology, which includes two of the same type of sensor to detect a single gas. The two sensor readings are processed through a proprietary algorithm and displayed as a single reading to the user. DualSense Technology ensures that regardless of your current bump test policy, you will be significantly safer than you would be using an instrument without redundant sensors\*. \*Based on iNet data

See all features and benefits at www.indsci.com/tango-tx1

#### **SPECIFICATIONS\***

#### WARRANTY

Guaranteed for Life™. Warranted for as long as the instrument is supported by Industrial Scientific Corporation (excludes sensors, batteries, and filters). CO and H<sub>2</sub>S sensors are warranted for three years. All other sensors are warranted for two years.

#### **CASE MATERIALS**

Case top — polycarbonate with a protective rubber overmold Case bottom — conductive polycarbonate

#### **DIMENSIONS**

99 x 51 x 35 mm (3.9 x 2.0 x 1.4 in)

#### WEIGHT

126.0 g (4.4 oz)

#### **ALARMS**

Three strobe-emitting visual alarm LEDs (two red; one blue)
100 decibel (dB) audible alarm at a distance of 10 cm (3.94 in) vibration alarm

#### -----

Segment Liquid Crystal Display (LCD)

#### **INGRESS PROTECTION**

IP66; IP67

#### TEMPERATURE RANGE

-40 °C to 50 °C (-40 °F to 122 °F) \*\* ATEX, IECEx, CSA, INMETRO and UL (C-US)

#### **HUMIDITY RANGE**

15% to 95% non-condensing (continuous)

#### **EVENT LOGGING**

60 alarm events

#### SENSORS AND MEASURING RANGES

#### **DATA LOGGING**

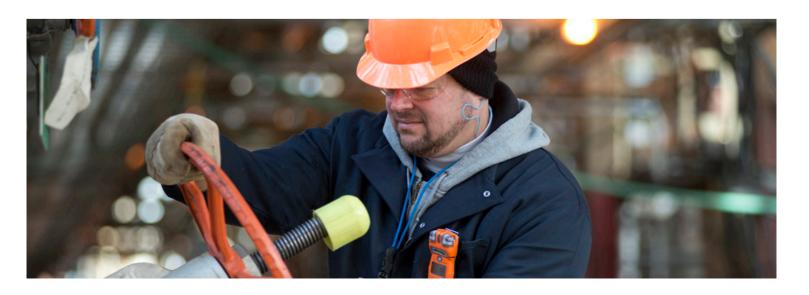
Three months at 10-second intervals

#### BATTERY

3.6 V Primary Lithium-Thionyl Chloride (Li-SOCl<sub>2</sub>); 1.5AH, 2/3AA; replaceable; nonrechargeable; always on; two-year run time depending on operating conditions

- \* These specifications are based on performance averages and may vary by instrument.
- \*\*\* Operating temperatures above 50 °C (122 °F) may cause reduced instrument accuracy. Operating temperatures below -20 °C (-4 °F) may cause reduced instrument accuracy and affect display and alarm performance.

Patent No. 9,000,910 – DualSense Technology | Patent No. 9,064,386 - AlarmAmp





## GASBADGE® PRO SINGLE GAS MONITOR

GasBadge® Pro is a single gas monitor built to Industrial Scientific's highest quality and reliability standards, providing a lifetime of gas hazard protection.

- Interchangeable sensors quickly adapt to monitor unsafe levels of oxygen or toxic gases
- Infrared interface
- Pair with GasBadge® Datalink to configure preferences and instantly download alarm events and instrument details
- Guaranteed for Life<sup>™</sup> warranty

See all features and benefits at www.indsci.com/gasbadgepro



#### **SPECIFICATIONS**

#### WARRANTY

Guaranteed for Life<sup>M</sup>. Instrument is warranted for as long as supported by Industrial Scientific Corporation (excluding sensors, batteries, and filters). CO, H<sub>2</sub>S, and O<sub>2</sub> sensors are warranted for 2 years. All other sensors warranted for 1 year.

#### CASE MATERIAL

Rugged, water-resistant polycarbonate shell with protective concussion-proof overmold. RFI resistant.

#### **DIMENSIONS**

9.4 x 5.08 x 2.79 mm (3.7 x 2 x 1.1 in )

#### WEIGHT

85 g (3 oz)

#### **ALARMS**

User selectable low and high alarms

Ultra-bright LEDs, loud audible alarm (95 dB) and vibrating alarm

#### **SENSORS AND MEASURING RANGES**

Carbon Monoxide (CO): 0-1,500 ppm in 1 ppm increments Carbon Monoxide (CO/H<sub>2</sub> Iow): 0-1,500 ppm in 1 ppm increments Hydrogen Sulfide (H2S): 0-500 ppm in 0.1 ppm increments Oxygen  $(O_2)$ : 0-30% by vol in 0.1% increments Nitrogen Dioxide (NO<sub>2</sub>): 0-150 ppm in 0.1 ppm increments Sulfur Dioxide (SO<sub>2</sub>): 0-150 ppm in 0.1 ppm increments Ammonia (NH<sub>3</sub>): 0-500 ppm in 1 ppm increments Chlorine (Cl<sub>2</sub>): 0-100 ppm in 0.1 ppm increments Chlorine Dioxide (ClO<sub>2</sub>): 0-1 ppm in 0.01 ppm increments Phosphine (PH<sub>3</sub>): 0-10 ppm in 0.01 ppm increments Hydrogen Cyanide (HCN): 0-30 ppm in 0.1 ppm increments 0-2,000 ppm in 1 ppm increments Hydrogen (H<sub>2</sub>):

#### **DISPLAY**

Custom LCD with graphical icons for easy use Segmented display for direct gas readings Backlight for low light conditions

"Go/No Go" display mode; peak reading indication

#### **INGRESS PROTECTION**

Third-party certified IP64

#### **TEMPERATURE RANGE**

-40 °C to 60 °C (-40 °F to 140 °F) typical

#### **HUMIDITY RANGE**

0% to 99% RH (non-condensing) typical

#### **EVENT LOGGING**

Continually on. Logs last 15 alarm events, stamping how long ago the event occurred, the duration of the event, and the peak reading seen during the event. Event-logger can be viewed on PC or printed directly from the instrument to an infrared printer.

#### **DATA LOGGING**

1-year continuous storage of data

#### **BATTERY RUN TIME**

User replaceable 3V, CR2 Lithium battery, 2,600 hour run time, typical

#### **SUPPLIED WITH MONITOR**

Attached Cuspender Clip, Calibration Adapter and Tubing



## GASBADGE® DATALINK

- Instantly download alarm events and instrument details
- Quickly and easily configure instrument preferences



**DSX™**DOCKING STATION

The DSX™ Docking Station is an automated gas detector maintenance, record storage, and fleet management solution that flexes with the needs of your business. Choose from DSX-L, DSXi, or DSX Standalone based on your data access requirements. All DSX Docking Stations offer automatic charging, bump testing, and calibration.

#### **PRODUCT SPECIFICATIONS\***

#### WARRANTY

Two-year warranty – DSX (Standalone) and DSX-L (Local Server) Guaranteed For Life™ Program\* – DSXi (Cloud-connected)

#### **INSTRUMENTS SUPPORTED**

Ventis MX4, Ventis Pro5, MX6 iBrid, Tango TX1, GasBadge Pro, SafeCore

#### DIMENSIONS

GasBadge Pro, Tango TX1:  $22.7 \times 16.9 \times 27.3 \text{ cm}$  ( $8.92 \times 6.65 \times 10.75 \text{ in}$ ) Ventis MX4, Ventis Pro5:  $24.9 \times 16.9 \times 27.3 \text{ cm}$  ( $9.83 \times 6.65 \times 10.75 \text{ in}$ ) MX6 iBrid:  $25.3 \times 16.9 \times 27.3 \text{ cm}$  ( $9.96 \times 6.65 \times 10.75 \text{ in}$ ) SafeCore:  $27.3 \times 16.9 \times 29.2 \text{ cm}$  ( $10.75 \times 6.65 \times 11.5 \text{ in}$ )

#### **GAS INLETS**

3-Port Version: One "fresh" air port, two calibration gas ports

6-Port Version: One "fresh" air port, five calibration gas ports (for Ventis,

MX6 iBrid, and SafeCore only)

PUMP FLOW RATE 1.2 SCFH (550 mL/min)

#### **COMMUNICATION**

10/100 Ethernet support, RJ-45 category 5 connection

#### DISPLAY

128 x 64 Dot Matrix LCD – multilingual modes English, Spanish, French, German and Portuguese\*\*

#### **OPERATING TEMPERATURE RANGE**

0 °C to 50 °C / 32 °F to 122 °F

#### **OPERATING HUMIDITY RANGE**

0% to 80% relative humidity (RH) up to 30 °C (86 °F), decreasing linearly to 50% RH at 50 °C (122 °F)

#### **EXTERNAL POWER SUPPLY RATINGS**

Supply voltage: 100-240 VAC / 12 VDC

Frequency range: 50-60 Hz

Current rating: 5A

\*Specific terms of the Guaranteed for Life™ Program are included with all products and are available upon request.

## Auto Replenishment

The calibration gas auto replenishment program is the most efficient way for customers to manage their calibration gas usage and needs. For those who elect to have the program as part of their iNet subscription, a new cylinder of gas will automatically be sent when iNet Control detects a low gas cylinder.

- Email alerts and notifications provide information on worker exposure, instrument usage, and instrument service needs
- Print bump test and calibration certificates for hot work and confined space entry
- Auto detect calibration gas type and expiration date upon cylinder connection
- Calibration gas status indicators provide warning to order replacement gas before a cylinder is empty
- DSX Standalone requires no PC or network connection
- DSXi Cloud-connected provides cloud-based record storage with automatic file back-up, fleet management, and automated maintenance and notifications through iNet Control
- DSX-L Local Server provides server-based record storage, fleet management, and automated maintenance and custom data reporting

	<b>DSX</b> Standalone	DSXi Cloud-connected	DSX-L Local Server
Record Storage	USB	Cloud	PC, Server
Bump and Cal	✓	<b>✓</b>	<b>✓</b>
Print Certificates	✓	<b>✓</b>	<b>✓</b>
6-Ports (Optional)	✓	<b>✓</b>	<b>✓</b>
Reports		✓	<b>✓</b>
Fleet Management		<b>✓</b>	<b>✓</b>
Event Scheduling		<b>✓</b>	<b>✓</b>
Email Alerts		<b>✓</b>	
Auto Software Updates		<b>✓</b>	
Auto Cal Gas Replenishment (Optional)		✓	
Price	\$	\$\$	\$\$\$
Software	Not Applicable	Included	Included

See all features and benefits at www.indsci.com/dsx



<sup>\*\*</sup>DSX-L (Local Server) does not support Portuguese.



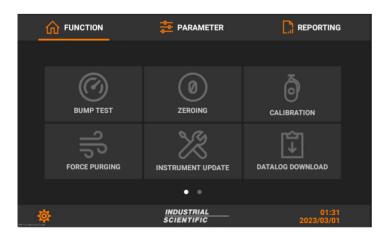
# T-DOCK™ AUTOMATED GAS DETECTOR MANAGEMENT SYSTEM

- · Maintain up to eight instruments simultaneously
- Bump test T40 II Rattler<sup>TM</sup> monitors in just 15 seconds
- No training needed simple interface is intuitive, one button starts all bump tests
- Automate device management with programmable settings
- Enhance productivity and safety with ultra-fast gas monitor maintenance
- Easily download event logs

The T-DOCK<sup>TM</sup> is an intelligent, automated instrument management station for T40 II Rattler<sup>TM</sup> Single-Gas Monitors. It enables ultra-fast bump testing for 8 instruments simultaneously, saving space, time, span gas, and enhancing productivity for safety teams.

The T-DOCK<sup>TM</sup> is easy to install and its capacitive touchscreen guides the user through an easy-to-follow process. Download data from T40 II Rattlers via a USB memory stick or directly connect to a USB printer to print reports and certificates.

The T-DOCK<sup>TM</sup> is ideal for turnarounds, shutdowns, and mobile applications where power outlets are unavailable thanks to a USB-C power bank.



#### **SPECIFICATIONS**

#### INSTRUMENT WARRANTY

3-Year Warranty

#### **DISPLAY**

5" Color LCD Touchscreen

#### PHYSICAL BUTTON

1 'Quick Bump' button, 1 'Fn' button, 1 reset button

#### **POWER SUPPLY**

Input: USB-C, DC20V/3.25A

#### **GAS PORTS**

- 3 independent gas inlets (including 1 dedicated for quick bump test)
- 1 fresh-air inlet
- 1 exhaust outlet

#### DIMENSIONS

368 x 310 x 110 mm

#### WEIGHT

2.71kg

#### **AUTOMATIC TESTS**

Automatic bump test, calibration, zeroing, and purging

#### **PUMP**

2 pumps

Flow rate: 2000ml/min, 500 ml/min per cradle (Max)

#### **DATA OUTPUT**

USB memory stick,

Printer PCL5 or above

#### SOFTWARE MANAGEMENT

T40 II Rattler<sup>TM</sup> Instrument Firmware Upgrade

## T-DOCK<sup>™</sup> Operating System (Android 7.1)

**COMPATIBLE INSTRUMENTS** T40 II Rattler<sup>TM</sup>

#### RATTERV

Compatible with USB TYPE-C PD Power Bank Min Power 65 W

#### DATASTORAGE

16 GB Memory

#### **RATING**

EMC Directive 2014/30/EU, EN IEC 61326-1:2021 FCC Part 15 IP20





## RGX® GATEWAY

The portable RGX® Gateway transmits location, gas readings, and real-time alerts from anywhere, including hazardous locations, so you can respond faster and improve productivity. The RGX Gateway is suitable for permit tasks that last hours, incidents that last days, or projects that last weeks.

- Receive real-time alerts and location data from personal gas monitors and area monitors
- Monitor hazardous locations and get data out of confined spaces in real time
- Up and running in minutes without the need for costly IT infrastructure
- Compatible with LENS Wireless-enabled Ventis Pro5 Multi-Gas Monitors and Radius BZ1 Area Monitors
- 168 hours of continuous run time
- Cell, wi-fi, or Ethernet connectivity options
- Automatic configuration and firmware updates without taking the gateway out of the field

#### **COMMON INSTRUMENT CONFIGURATIONS**

PART NO.  18109509-001  RGX Gateway, No SIM, wi-fi/Ethernet compatible, LENS Repeater Mode, cULus, North American Power Cord  RGX Gateway, USA, LTE (Verizon compatible), cULus, North American Power Cord
Mode, cULus, North American Power Cord  18109509-011 RGX Gateway, USA, LTE (Verizon compatible), cULus, North American Power Cord
Power Cord
ANALOGE OF A POWER OF THE PARTY
18109509-021 RGX Gateway, USA, LTE (AT&T compatible), cULus, North American Power Cord
18109509-041 RGX Gateway, Canada, LTE, (Telus/Bell/Rogers compatible), cULus, North American Power Cord
18109509-062 RGX Gateway, EMEA, 3G (Tele2 compatible), ATEX/IECEx, EU Power Cord
18109509-075 RGX Gateway, Asia Pacific, 3G (Telefonica compatible), China Ex, Australian Power Cord

#### **CHARGERS AND POWER CORDS**

PART NO.	DESCRIPTION
18109388-1A	Extended Run Time Power Supply A = Power Cord, where 1 = North America, 2 = Europe, 3 = Australia, 4 = UK
18109516	Intrinsically Safe Extended Run Time Power Supply (CSA)
17156261	50m Replacement Intrinsically Safe Cable

#### **SPECIFICATIONS**

**WARRANTY** 2 years

**DIMENSIONS** 11 x 9 x 6 in (28 x 23 x 15 cm)

**WEIGHT** 5.6 lb (2.5 kg)

#### **CASE MATERIAL**

Polycarbonate | Leather external case

#### **RUN TIME / POWER SOURCE**

Rechargeable Battery Pack:168 hours at 25 °C (77 °F), 5 minute non-critical data interval

Charge Time: Up to 8 hours

Power Voltage Inputs: 9-30 VDC (for operation in industrial facility, vehicle, and office)

#### **TEMERATURE RANGE**

-20 °C to 55 °C (-4 °F to 134 °F)

#### **HUMIDITY RANGE**

5% to 95% non-condensing (continuous)

#### **INGRESS PROTECTION**

IP65

#### LOCATION

GPS Radio; Antenna: Internal; Accuracy: ~10 m (32 ft) outdoors

#### **SUPPLIED WITH GATEWAY**

**Charging Power Cord** 

#### **OPTIONAL ACCESSORIES**

Extended Run Time Power Supply (intrinsically safe or standard) Mounting Kits (wall or magnet)

#### **USER INTERACTION**

Power Button with Status Indicator

Configuration: Locally over Ethernet or wi-fi, or remotely over-the-air (iNet® Control) Firmware Upgrades: Over-the-air

#### **COMMUNICATION\***

LENS WIRELESS, MESH NETWORK

Frequency: ISM license-free band (2.4 GHz) Max Instruments: 25 devices (including RGX)

#### **RANGE**

World Mode, RGX Gateway to RGX Gateway 300 m (~1,000 ft) line of sight CE/RED Compliant Mode, RGX Gateway to RGX Gateway 185 m (~600 ft) line of sight World Mode, RGX Gateway to Radius BZ1 300 m (~1,000 ft) line of sight CE/RED Compliant Mode, RGX Gateway to Radius BZ1 185 m (~600 ft) line of sight World Mode, RGX Gateway to Ventis Pro5 100 m (~300 ft) line of sight CE/RED Compliant Mode, RGX Gateway to Ventis Pro5 100 m (~300 ft) line of sight

**ENCRYPTION: AES-128** 

APPROVALS: FCC Part 15, IC, CE/RED, Others\*

#### **CELLULAR**

LTE with 3G fallback

US: Verizon, AT&T, T-Mobile

Canada: Telus, Bell, Rodgers

EMEA: Tele2

Asia Pacific: Telefonica

Antenna: Internal Multi-Band

#### WI-F

802.11 b/g/n 2.4 GHz wi-fi with WPA2 Enterprise security

ETHERNET (INTERNAL ONLY)

Ethernet 10/100 Mb

#### **HAZARDOUS CERTIFICATIONS**

ATEX\*\*: Zone 2: Ex ec ic IIC T6 Gc; RoHS Compliant

China Ex: Zone 2: Ex ec ic IIC T6 Gc (CN)

cULus: Class I, Division 2, Groups A, B, C, D, T6; Zone 2: Ex ec ic IICT6 Gc (CA) AEx ec ic IIC T6 Gc (US)

IECEx\*\*: Zone 2: Ex ec ic IICT6 Gc

<sup>\*</sup> See www.indsci.com/wireless-certifications for country-specific wireless approvals and certifications

<sup>\*\*</sup> Requires leather case



## **iASSIGN® BEACON AND TAGS**

iAssign® Beacons and Tags allow you to go beyond the basic "what" and "when" data from gas detectors to understand "who" and "where."

Using a pre-programmed iAssign Tag, operators can wirelessly enter a name into a device by simply tapping it with a tag. Now all data recorded in the instrument will be tagged with the user's name. This allows users to carry different gas monitors each day while still having a clear data record of who had an instrument when it went into alarm. When a worker (and tagged device) approaches an iAssign Beacon on your site, the beacon adds the device location to the data. iAssign Beacons can also be set with permission levels, allowing you to send automatic alerts to workers entering restricted areas.

- Locate problem sites across your facility
- Alert workers when entering restricted areas with simple-toprogram proximity alarms
- Manage worker clearances without the need for separate devices, extra signage, or physical barriers
- Intrinsically-safe beacons can be used indoors or outdoors, and cover areas as small as 1 meter or as large as 30 meters

#### **IASSIGN BEACON SPECIFICATIONS\***

#### PART NUMBER

18109491

#### **RUN TIME**

Four years

#### WARRANTY

One year

#### **INGRESS PROTECTION**

#### **TEMPERATURE RANGE**

-40 °C to 50 °C

#### **HUMIDITY RANGE**

0% to 100% RH

#### **DIMENSIONS**

125 x 85 x 43mm (5 x 3.3 x 1.68 in)

#### WEIGHT

9 oz (250 g)

#### **RANGE**

Configurable from 1 to 30 m (3 to 100 ft)

#### **TECHNOLOGY**

Bluetooth, Near Field Communication (NFC)

#### PROGRAMMING METHOD

iAssign app available in Google Play store

#### **ACCESSORIES**

Instruction card, drywall anchors, screws

#### **APPLICATION**

iAssign beacons may be used to track locations only

#### **CERTIFICATIONS**

II 1 G, Ex ia IIC T4 Ga ATEX:

c UL us: CI I, Div 1 Gr A, B, C, D, T4; CI II, Div 1, Gr E, F, G;

CI I Zone O, AEx ia IIC T4; Ex ia IIC T4

IECEx: Ex ia IIC T4 Ga Wireless: FCC Part 15, IC

### **BLUETOOTH LOW ENERGY**

Frequency: 2402 to 2480 MHz

Transmit power: +4 dBm

Based upon standard: Bluetooth v4.1

Contains FCC ID#: RYYEYSGJN (Taivo Yuden)

<sup>\*</sup> These specifications are based on performance averages and may vary by instrument.



#### **IASSIGN TAG SPECIFICATIONS**

#### **TECHNOLOGY**

Near Field Communication (NFC)

#### PROGRAMMING METHOD

iAssign app available in Google Play and App Store

iAssign tags may be used to track workers and locations





## BUMP-N-GO BUMP TEST GAS

Bump testing gas detectors before each day's use is the only way to be sure that the sensors respond to gas. Bump-N-Go is a portable bump test cylinder that goes where the work is, so you can still bump test without access to a docking station or calibration gas.

- Bump test any time, anywhere with a pocket-sized gas cylinder
- Get 250 bumps out of one bottle, at a lower cost-perbump, thanks to a pushbutton regulator that eliminates wasted gas
- Enjoy lower shipping costs with no hazardous material fees for ground shipments
- Convenient six-pack option saves time and money

#### **SPECIFICATIONS**

#### **CYLINDER SHELF LIFE**

1 year

#### **CYLINDER HEIGHT**

97.5 mm (3.84 in)

#### CYLINDER DIAMETER

48 mm (1.90 in)

#### **CYLINDER WEIGHT**

204 g (7.2 oz)

#### **TEMPERATURE**

Protect from sunlight and do not expose to temperatures exceeding 50 °C (122 °F)

#### CYLINDER STORAGE

Remove regulator prior to storage. Cylinders should be firmly secured to prevent falling or being knocked over. Store in a dry, well-ventilated area, away from sources of heat, ignition, and direct sunlight.

#### USE

Bump-N-Go Cylinders are for bump testing only. Do not use for calibration.

#### **INDIVIDUAL CYLINDERS**

PART NUMBER	DESCRIPTION
18109566	Bump-N-Go Cylinder, 100 ppm CO
18109567	Bump-N-Go Cylinder, 40 ppm H <sub>2</sub> S
18109568	Bump-N-Go Cylinder, 100 ppm CO, 75 ppm $H_2S$ , 15% $O_2$ , 25% LEL (Methane)
18109597	Bump-N-Go Cylinder, 100 ppm CO, 75 ppm $H_2S$ , 15% $O_2$ , 50% LEL (Methane)

#### SIX-PACK CYLINDERS

18109579	Bump-N-Go Cylinder, 6-pack, 100 ppm CO
18109578	Bump-N-Go Cylinder, 6-pack, 40 ppm H <sub>2</sub> S
18109577	Bump-N-Go Cylinder, 6-pack, 100 ppm CO, 75 ppm $H_2S$ , 15% $O_2$ , 25% LEL (Methane)
18109598	Bump-N-Go Cylinder, 6-pack, 100 ppm CO, 75 ppm H <sub>2</sub> S, 15% O <sub>2</sub> , 50% LEL (Methane)

#### REGULATOR

18109565 Pushbutton regulator for use with Bump-N-Go Cylinders



## **GAS DETECTION** meets

## **CONNECTED SAFETY**

With the Ventis® Pro5 Personal Gas Monitor and Radius® BZ1 Area Monitor, you have the flexibility to choose how you want your teams to connect. Whether you want peer-to-peer alarm sharing, personal monitor to area monitor connectivity, or remote live monitoring, Industrial Scientific has you covered.

## PERSONAL GAS and AREA MONITORING

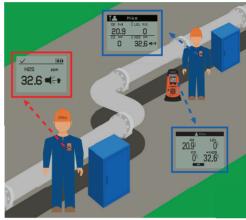
Reliable Ventis Pro5 and Radius BZ1 gas monitors are key to protecting employees from invisible hazards.



Connect personal and area monitors across your worksite.

## TEAM and SITE-BASED SAFETY

Give workers insight to their surroundings by sharing alarms and notifications between gas monitors.



When Mike is in alarm, his peers are immediately notified.

## MANAGE SAFETY and PRODUCTIVITY

Get data out of any situation and increase productivity by knowing where your workers are and what dangers they may encounter.



With iNet® Now, the safety manager also knows that Mike is in alarm in real time.

## **INSTRUMENT-TO-INSTRUMENT WIRELESS**

LENS® Wireless, exclusive to Industrial Scientific, shares hazard exposures, panic, and man-down situations, with other connected instruments using a peer-to-peer network. No central command or complicated set up required. Just turn on the instruments to connect.

## Ownership Options

Industrial Scientific offers a variety of purchase plans to meet your specific needs and budget.

#### **Purchase**

All products are available for purchase through our worldwide network of distributors. To find a local distributor, visit www.indsci.com and click "where to buy" or contact a regional office in your area.

#### **Certified Pre-Owned**

Every Industrial Scientific certified pre-owned monitor gives you virtually all the durability and reliability of a new monitor. Only instruments that pass a rigorous multi-point inspection, including intrinsic safety approvals, are included in this program. Our certified pre-owned instruments are backed by a one-year warranty. Visit <a href="https://www.indsci.com/gas-detectors/certified-pre-owned/">www.indsci.com/gas-detectors/certified-pre-owned/</a> for more information.

#### **Gas Detection as a Service**

iNet® Exchange is a subscription-based service that covers repair and replacement of gas detectors. iNet Exchange simplifies your gas detection program by allowing you to build a flexible fleet of instruments, avoid instrument downtime, and eliminate the cost of extra equipment.

#### **Gas Detection Rental Program**

When you need gas detectors and need them quickly, renting is the most efficient route. Gas detectors can be readied for same-day or next-day delivery, or pick up is available at our Pittsburgh, Houston, and Edmonton facilities.

- Fully-stocked inventory of over 25,000 pieces of fullyinspected rental equipment, including all accessories
- Gas detectors arrive ready to use with guaranteed reliability out of the box
- Pre-calibrated to NIST standards
- Chargers provided at no additional cost
- iNet customers automatically receive a special discount and rentals are pre-configured to match existing fleet
- Rental units added to iNet Exchange accounts will be monitored for service needs and exchange monitors will be sent immediately









To learn more, email: rental@indsci.com or visit: www.indsci.com/rental



## Start-up and Commissioning Services

Industrial Scientific can install your systems, ensure they work properly, and train your employees. Contact us or your local distributor for a customized program and quote that works for your employees, resources, and budget.

## Maintenance and Repair

To ensure your instruments remain at their highest-quality performance, we provide preventative maintenance and repair through mobile service programs and regional service centers.

If your instrument needs repair, visit www.indsci.com/repair

## Warranty

Industrial Scientific designs and manufactures the highest quality instruments to preserve life and property. Industrial Scientific warrants our monitors to be free from defects in material and workmanship under normal and proper use and service (consumable items excluded). Contact Industrial Scientific for additional warranty information, including warranty duration for each specific instrument. Warranty registration ensures valid warranty coverage.

Register your products at www.indsci.com/gas-detectors/warranty

## **Extended Warranty**

Extended warranty programs provide additional coverage after the initial product warranty expires. The extended warranty is all-inclusive and designed to provide consistent maintenance costs for the length of the program.

## **Training Services**

Gas Detection Made Easy seminars are presented monthly by Industrial Scientific's experienced training department in a hands-on learning environment. Customer-site training is also available to meet your corporate needs for gas hazard education, confined space awareness, and instrument training. Product training videos for users and supervisors are also available in various formats for instrument operation, calibration, and maintenance.

Industrial Scientific is committed to educating workers on the proper use of gas detection equipment and services while empowering them to enhance their culture of safety. We offer a variety of solutions to meet your training needs.

#### Who Should Attend?

- Safety and health professionals
- Firefighters and emergency responders
- Contractors

#### **Face to Face Training Classes Include**

- Gas Detection Made Easy Program For novices or individuals with years of gas detection experience
- Hazardous Gases Overview of commonly used gases, their properties, and effects
- Use of Instruments in Confined Spaces Overview of applicable laws and instruction for the use of gas detection instruments in compliance with government regulations

See our full library of training resources at www.indsci.com/training

- Sensor Technology Description of catalytic bead sensors, electrochemical sensors, infrared sensors, and more
- Presentation of the Instruments Overview of Industrial Scientific's portable instruments and docking stations
- Calibration and Maintenance Instruction on the most important components of a safe, reliable gas detection program
- Hands-On Activities Learning by doing

#### **End User Training Classes**

Gas Detection 101 – Gas Detection Introduction
Gas Detection 102 – How to Use Gas Detectors
Gas Detection 103 – How to Service and Repair Gas Detectors
iNet Control Training
On-site Custom Courses

T3 - Train the Trainer

## **Products Covered by Our Online Video Training**

GasBadge Pro Tango TX1
Ventis MX4 Ventis Pro5
MX6 iBrid Radius BZ1

iNet Control DSX Docking Station

## Download the Gas Detection Made Easy App

Learn about hazardous gas types, detection methods, sensor technologies, regulations, and more.







## Electrochemical Sensor Cross Interference Table

#### **SENSOR**

	Carbon Monoxide	Carbon Monoxide/ Hydrogen Low	Hydrogen Sulfide (Ventis)	Hydrogen Sulfide (TX1, MX6)	Sulfur Dioxide	Nitrogen Dioxide	Chlorine	Chlorine Dioxide	Hydrogen Cyanide	Hydrogen Chloride	Phosphine	Nitric Oxide	Hydrogen	Ammonia
Carbon Monoxide	100	100	1	1	1	0	0	0	0	0	0	0	20	0
Hydrogen Sulfide	5	5	100	100	1	-40	-3	-25	10	300	25	10	20	25
Sulfur Dioxide	0	5	5	5	100	0	0	-5	10	40	-1	0	0	-40
Nitrogen Dioxide	-5	5	-25	-25	-165	100	45	50	-70	_	-11	30	0	-10
Chlorine	-10	0	-20	-20	-25	10	100	60	-20	6	-20	0	0	-50
Chlorine Dioxide	_	_	_	_	_	_	20	100	_	_	_	_	_	_
Hydrogen Cyanide	15	5	-1	-5	50	1	0	0	100	35	4	0	30	5
Hydrogen Chloride	3	_	0	0	5	0	2	0	0	100	0	15	0	0
Phosphine	80	415	60	55	20	-130	-225	-100	425	300	100	10	-30	15
Nitric Oxide	25	40	1	-0.2	1	5	10	_	-5	_	-1	100	30	0
Hydrogen	22	3	0.3	0.08	0.5	0	0	0	0	0	0	0	100	0
Ammonia	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Acetylene	202	177	0	0	138	0	_	_	_	8	_	_	_	_

NOTES: The table above reflects the percentage response provided by the sensor listed across the top of the chart when exposed to a known concentration of the target gas listed in the left hand column.

- -The specified cross interference numbers apply to new sensors only and may vary with time and vary from sensor to sensor.

  -The numbers are measured under environment of 20 °C, 50% RH and 1 atm
- -This table is given as a guide only and is subject to change

## LEL Correlation Factors

GAS BEING SAMPLED

### **CALIBRATION GAS**

	LEL (% vol)	Butane	Hexane	Hydrogen *	Methane *	Pentane *	Propane *
Acetone	2.5%	1.06	0.70	1.70	1.70	0.90	1.10
Acetylene	2.5%	0.74	0.60	1.30	1.30	0.70	0.80
Benzene	1.2%	1.16	0.80	1.90	1.90	1.00	1.20
Butane	1.8%	1.00	0.55	1.69	1.58	0.79	0.98
Ethane	3.0%	0.84	0.60	1.30	1.30	0.70	0.80
Ethanol	3.3%	0.94	0.52	1.59	1.49	0.74	0.92
Ethylene	2.7%	0.84	0.60	1.40	1.30	0.70	0.90
Hexane	1.1%	1.81	1.00	3.04	2.86	1.42	1.77
Hydrogen	4.0%	0.59	0.33	1.00	0.94	0.47	0.58
Isopropanol	2.0%	1.16	0.90	2.00	1.90	1.00	1.20
Methane	5.0%	0.63	0.35	1.06	1.00	0.50	0.62
Methanol	6.0%	0.63	0.50	1.10	1.10	0.60	0.70
Nonane	0.8%	2.34	1.30	3.95	3.71	1.84	2.29
Pentane	1.4%	1.28	0.71	2.15	2.02	1.00	1.25
Propane	2.1%	1.02	0.57	1.72	1.62	0.80	1.00
Styrene	0.9%	1.30	1.00	2.20	2.20	1.10	1.40
Toluene	1.1 %	1.62	0.89	2.71	2.55	1.26	1.57
Xylene	1.1%	1.58	1.10	2.60	2.50	1.30	1.60
JP-4		_	_	_	_	1.20	_
JP-5	_	_	_	_	_	0.90	_
JP-8		_	_	_	_	1.50	_

Accuracy +/- 25% error / NOTE: Calibration gases available from Industrial Scientific Corporation. \* Prefered gases

- 1. The correlation factors in the table are averaged results for estimation use only. It's not recommended for analytical application with high accuracy expectation.
- 2. The correlation factors may vary from sensor to sensor with tolerance of +/- 25% for new sensors. The number could further shift for old sensors.
- 3. To get a more accurate result, it's recommended to calibrate the instrument with a gas that has CF close to 1. The closer, the better.
- 4. It's not recommended to use correlation factors if the target gas is methane and the sensor is old.
- 5. Expect more deviation when an old sensor is calibrated with methane gas.

## What Accessories Best Fit Your Needs?

#### Accessory Labels for Asset Management Extended Run Time Power Supply Calibration Gas / Bump-N-Go Bump Test Gas Instrinsically Safe External Run Time Power Supply Calibration Stations Probes Filters Carrying Cases Chargers (Desktop, Multi-Unit, Vehicle) Regulators Compliance Tracking Software (iNet Control) Replacement Sensors Confined Space Kits Sampling Pumps **Docking Stations** Sample Tubing Extra Modules or Bases Spare Batteries

For a list of all accessories, visit www.indsci.com

## Certifications

**CHECKLIST** 

AGENCY	MULTI-GAS MONITORS						SINGLE GAS MONITORS			
	MX6 iBrid	Ventis Pro5	Ventis MX4	M40	Tango TX2	Radius BZ1	Tango TX1	GasBadge Pro	T40 II	T40
ANZEx	•	•	•					•	•	•
ATEX	•	•	•		•	•	•	•	•	•
China CMC			•	•	•				•	•
China CPC	•	•	•			•	•			
China Ex	•	•	•	•	•	•	•	•	•	•
China KA			•							
China MA			•	•			•	•		•
CSA	•	•	•			•	•	•	•	•
EAC/GOST	•	•	•				•			
IECEx	•	•	•		•	•	•	•	•	•
INMETRO	•	•	•			•	•	•	•	
KC	•	•	•			•	•	•	•	
KIMM			•							
MDR	•									
MSHA	•	•	•							
PA-DEP	•	•	•							
SANS 1515/MASC-IA		•	•			•				
TIIS			•							
UL	•	•	•		•	•	•	•	•	•

Certain limits apply to the number of sensor configurations. Call for details.







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