# GAS DETECTION, MONITORING and SOFTWARE SOLUTIONS

INDUSTRIAL SCIENTIFIC



### ABOUT INDUSTRIAL SCIENTIFIC

3 Welcome to Industrial Scientific

## **OFFICE LOCATIONS**

4 Office Locations

## SOFTWARE SOLUTIONS

5 iNet<sup>®</sup> Platform6 SAFER<sup>™</sup> One Software

## MULTI-GAS DETECTORS

8 Ventis<sup>®</sup> MX4 Multi-Gas Monitor 10 Tango<sup>®</sup> TX2 Two-Gas Monitor 11 Ventis<sup>®</sup> Pro5 Multi-Gas Monitor 15 Ventis<sup>®</sup> Slide-on Pump 16 MX6 iBrid<sup>®</sup> Multi-Gas Monitor

AREA MONITORS 19 Radius® BZ1 Multi-Gas Area Monitor

## SINGLE GAS MONITORS

22 Tango® TX1 Single Gas Monitor
24 GasBadge® Pro Single Gas Monitor
26 T40 Rattler™ Disposable Single Gas Monitor

DOCKING STATIONS 27 DSX<sup>™</sup> Docking Station

## CONNECTIVITY GATEWAYS

29 RGX<sup>®</sup> Gateway 30 TGX<sup>®</sup> Gateway

## ACCESSORIES

31 iAssign® Beacon
32 Solar Power Supply
33 Calibration Gas Cylinders
36 Bump-N-Go<sup>™</sup>
38 Sampling and Calibration Equipment
39 Sampling Probes

## SERVICES

40 After Sale Support41 GDME Training

## **REFERENCE LIBRARY**

42 Electrochemical Sensor Cross Interference Table

## **CERTIFICATIONS & PRICING**

43 Gas Monitor Certifications and Pricing























Since being founded in 1985, Industrial Scientific has sought to contribute to this world by helping people return home from work alive at the end of each day. We recognize that, at any given time, hundreds of thousands of people are betting their lives on the work we do as a company.

That being said, it is important to know what drives your supplier of gas detection equipment and solutions. At Industrial Scientific, we are driven by three things:

The first is **Our Mission**—Preserving human life on, above, and below the Earth. Delivering the highest quality, best customer service—every transaction, every time. What we do, preserving human life, shapes our expectations toward the output. It must be of the highest quality and exceed our customers' expectations. We invest aggressively in capital equipment and business systems to ensure this. We partner with the best suppliers we can find. We don't let anything out of our factories that we wouldn't bet our own lives on.

The second is **Our Vision**—Industrial Scientific people are dedicating their careers to eliminating death on the job by the year 2050. We know that gas detection alone will not prevent all workplace injuries or deaths. We are working toward the next generation of connected safety solutions to see an end to workplace fatalities in our lifetimes.

Last, we are guided by **Our Way**—Humble, hungry, and smart. Seek truth; speak truth. Serving others is our greatest joy. We expect our employees to be the most highly qualified for their positions in order to better serve our customers. We will not compromise by serving you with anyone but the best people.

If you are a current customer, thank you for your business and partnership. If not, I hope to have the opportunity to demonstrate how Industrial Scientific can help you create a safer workplace.



Parker Burke President

1PM

Industrial Scientific Corporation (Corporate Headquarters) – Pittsburgh, PA, USA		
Industrial Scientific Corporation One Life Way Pittsburgh, PA 15205-7500 USA Hours: 8:00am - 8:00pm EST, Mon - Thurs 8:00am - 6:00pm EST, Friday	Phone: Fax: Email: Service Email: Website:	+1 412-788-4353 1-800-DETECTS (338-3287) +1 412-788-8353 info@indsci.com serviceapproval@indsci.com www.indsci.com
Service Center – Houston, TX, USA		
Industrial Scientific Corporation 2300 Pasadena Freeway Suite 105 Pasadena, TX, 77506 USA	Phone: Fax: Service Email: Website:	+1 713-475-2000 +1 713-475-2002 houstonservice@indsci.com www.indsci.com
Hours: 8:00am - 5:00pm CST, Mon - Fri		
Service Center – Sherwood Park, AB, Canada Industrial Scientific Corporation 167 Provincial Avenue, Unit #170 Sherwood Park, Alberta, T8H 0M3 Canada Hours: 8:00am - 5:00pm MST Mon - Eri	Phone: Fax: Service Email: Website:	+1 780-467-2423 +1 780-467-2105 edmontonservice@indsci.com www.indsci.com
Service Center – Altona North VIC, Australia		
Industrial Scientific Pty. Millers Junction 15 Cabot Drive Altona North VIC 3025 Australia Hours: 8:30am - 5:30am AEST, Mon - Eri	Phone: Fax: Service Email: Website:	+61-3-96447777 1 800 809 606 +61-3-96447709 auscustomerservice@ap.indsci.com
Industrial Scientific – Indaiatuba, Brazil	1	
Industrial Scientific Corporation Rua Capitão Alberto Mendes Junior, 80 Sala 21 à 25 - Vila Nossa Senhora Aparecida Indaiatuba/SP, CEP: 13330-560 South America Hours: 8:30am - 5:30pm GMT-3, Mon - Fri	Phone: Fax: Service Email: Website:	+55-19-38351254 +55-19-982380254 mpiagentini@indsci.com www.indsci.com/pt-br
·····	I	



#### Manufacturing

Industrial Scientific has two manufacturing plants—one located at corporate headquarters near Pittsburgh, PA, and another in Shanghai, China.



#### Sales Offices

Our sales support teams are ready to help you with all your gas detection needs. Contact us for a detailed quote, or if you just want some help selecting the right gas detector.



#### **Customer and Technical Support**

We offer a wide variety of support services to help you. Contact us with your order, product application, service or technical questions. Our friendly and knowledgeable professionals are ready to help you!

For after-hours emergencies, you may call the Corporate Headquarters at 1-800-DETECTS or +1 412-788-4353. You will be instructed to press the number "3" and follow the prompts. Your call will be returned as quickly as possible.



#### Service Centers

Contact us for all levels of factory repair and maintenance. We provide fast turnaround and excellent value. We repair exactly to your requirements and offer software upgrades at no cost.

#### Instrument Return Instructions can be dowloaded from each office listing.



## iNet<sup>®</sup> Platform

The iNet safety platform is a suite of data-driven, cloudconnected solutions that support the next evolution of gas detection safety. The iNet safety platform gives you the insights and visibility you need to optimize detector management, reduce hazards, accelerate emergency response, and drive continuous improvement in safety operations. By simplifying maintenance and providing real-time insights, it makes your team more efficient and productive. Rather than routine maintenance and paperwork, they can invest their time in ongoing safety improvement.

## iNet® Exchange

To take maintenance maturity to the next level, you can choose iNet® Exchange, a comprehensive subscription service that covers gas detector maintenance and repair, shipping, calibration gas, docking stations, training, and more. With iNet Exchange, you always have the monitors you need ready for service.

iNet Exchange automatically replaces your gas detectors when—and often before—failure occurs. By eliminating maintenance and repairs from your to-do list, your team gains time to focus on broader improvements to your safety program.

Once your gas detectors are connected to the cloud—whether through a docking station or built-in device connectivity—it becomes easy to access and use the data they generate to inform future safety decisions.

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

## iNet® Control+

iNet<sup>®</sup> Control+ is a comprehensive management software designed to increase safety productivity. This centralized one-stop data shop helps you do more with less and uncover insights that drive impact. With one solution that covers it all, you can streamline your safety management processes, reduce downtime and alarm fatigue, improve compliance, mitigate risks with interactive device placement and alarm heat mapping, and much more.



iNet Control+ also tells you exactly when alarms occurred, how long they were, and enables you to report on highest alarm counts by gas and user so you can address safety issues effectively. If you choose to maintain your own equipment, it gives you insights into equipment failures so you can stay on top of repairs and fleet maintenance.

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

**iNet® Now** Worker safety also depends on how quickly you can respond to an emergency. With live monitoring in iNet® Now, you gain real-time visibility into worker and site conditions. Real-time text, email, or onscreen alerts about worker location and status enable you to respond when it matters, while a live map of worker locations and hazards help save time in emergencies. Because it provides visibility across all devices and locations, iNet Now also makes it possible to identify high-risk areas with visual summaries of gas alarms by type, location, user, and more. The software helps track devices to help significantly reduce lost device onsite. From the worker's perspective, iNet Now eliminates manual check-ins so they can focus on the job.

With 24/7 Professional Monitoring, you can rely on agents to escalate incidents according to a custom response plan around the clock. When an alarm is triggered on a worker's gas detector, an agent will pursue the alert until it's resolved. You can ensure your workers get the help they need while increasing site efficiency and your capability to handle other priorities.

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



## SAFER One

6

If a chemical release happens, having the right tools and insights can make all the difference. With SAFER One® Dynamic Plume Modeling you get real-time, predictive information that enables proactive response during a chemical event. It enables you to immediately identify the source of a chemical leak so you can stop it quickly, pinpointing danger zones on a map that combine real-time data from gas sensors, weather stations, and local traffic patterns.

Your team can work more efficiently by automating postevent analysis and odor-complaint processes. With the resulting data, you can make strategic improvements to safety protocols, helping reduce the impact of future incidents.

Individually or together, these solutions help you advance safety, streamline operations, and build a strong strategy for continuous improvement.



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)



See how you can take your existing safety processes to the next level with SAFER One at: www.indsci.com/safer

### **GASTRONICS MONITORS**

PART NO.	DESCRIPTION
18109650-11	True Wireless, Fixed Gas Transmitter, (HCN), Class 1 Div 1, UHF, w/ Solar Package
18109650-12	True Wireless, Fixed Gas Transmitter, (HCN), Class 1 Div 1, 900MHz, w/ Solar Package
18109650-21	True Wireless, Fixed Gas Transmitter, (NH3), Class 1 Div 1, UHF, w/ Solar Package
18109650-22	True Wireless, Fixed Gas Transmitter, (NH3), Class 1 Div 1, 900MHz, w/ Solar Package
18109650-31	True Wireless, Fixed Gas Transmitter, (Cl2), Class 1 Div 2, UHF, w/ Solar Package
18109650-32	True Wireless, Fixed Gas Transmitter, (Cl2), Class 1 Div 2, 900MHz, w/ Solar Package
18109650-41	True Wireless, Fixed Gas Transmitter, (HF), Class 1 Div 1, UHF, w/ Solar Package
18109650-42	True Wireless, Fixed Gas Transmitter, (HF), Class 1 Div 1, 900MHz, w/ Solar Package
18109650-51	True Wireless, Fixed Gas Transmitter, (PID & Cl2), Class 1 Div 2, UHF, w/ Solar Package
18109650-52	True Wireless, Fixed Gas Transmitter, (PID & Cl2), Class 1 Div 2, 900MHz, w/ Solar Package
18109650-61	True Wireless, Fixed Gas Transmitter, (HCI), Class 1 Div 2, UHF, w/ Solar Package
18109650-62	True Wireless, Fixed Gas Transmitter, (HCI), Class 1 Div 2, 900MHz, w/ Solar Package
18109650-71	True Wireless, Fixed Gas Transmitter, (PID & SO2), Class 1 Div 1, UHF, w/ Solar Package
18109650-72	True Wireless, Fixed Gas Transmitter, (PID & SO2), Class 1 Div 1, 900MHz, w/Solar Package $$
18109650-81	True Wireless, Fixed Gas Transmitter, (LEL & H2S), Class 1 Div 1, UHF, w/ Solar Package
18109650-82	True Wireless, Fixed Gas Transmitter, (LEL & H2S), Class 1 Div 1, 900MHz, w/ Solar Package
18109650-91	True Wireless, Fixed Gas Transmitter, (PID (0-25 ppm)), Class 1 Div 2, UHF, w/ Solar Package $$
18109650-92	True Wireless, Fixed Gas Transmitter, (PID (0-25 ppm)), Class 1 Div 2, 900MHz, w/ Solar Package

### **GASTRONICS ACCESSORIES**

PART NO.	DESCRIPTION
17159535	Sensor, Chlorine, Wireless, Class 1 Div 2
17159536	Sensor, Hydogen Chloride, Wireless, Class 1 Div 2
17159537	Sensor, Hydrogen Fluoride, Wireless, Class 1 Div 2
17159538	Sensor, Sulfur Dioxide, Wireless, Class 1 Div 2
17159539	Sensor Hydrogen Sulfide, Wireless, Class 1 Div 2
17159540	Sensor, Hydrogen Sulfide (High Temperature), Wireless, Class 1 Div 2
17159541	Sensor, Ammonia, Wireless, Class 1 Div 2
17159542	Sensor, Hydrogen Cynanide, Wireless, Class 1 Div 2
17159565	Sensor, Hydrogen Fluoride, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159566	Sensor, Sulfur Dioxide, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159567	Sensor, Hydorgen Sulfide, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159568	Sensor, Ammonia, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159569	Sensor, Hydrogen Cyanide, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
N/A	Sensor, LEL Infrared Combustible, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159570	Sensor, LEL Catalytic Combustible, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159563	Sensor, Chlorine, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159564	Sensor, Hydrogen Chloride, Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159571	PID (Low Range 0.0 - 25.0 ppm), Wireless, Stainless Steel Flame Arrestor, Class 1 Div 1
17159572	Sensor, PID, Replacement Lamp, Wireless
17159462	PID Lamp Removal Tool

PART NO.	DESCRIPTION
17159548	Battery, 12Ah, 12VDC, Battery Box
17159549	Battery, 32Ah, 12VDC, Battery Box, (Nut and bolt connector)
17159550	Battery, 7Ah, 12VDC, Base Station
17159561	Small Battery Box Complete less Panel for Solar Package (12AH)
17159556	Large Battery Box Complete less panel for Solar Package (32AH)
17159557	Solar Panel, 20W, C1D2, UL/CSA
17159558	Solar Panel, 40W, C1D2, UL/CSA
17159573	Antenna Coupler, RPSMA Connector, Digi Radio, Class 1 Div 1
17159574	Antenna Coupler, RPSMA Connector, Digi Radio, Class 1 Div 2
17159575	Antenna Coupler, BNC Connector, Ritron Radio, Class 1 Div 1
17159576	Antenna Coupler, BNC Connector, Ritron Radio, Class 1 Div 2
17159577	Antenna Rubber Ducky N Connector for 900MHz
17159578	Antenna Rubber Ducky N Connector for UHF
17159546	Regulator, C1D2 Solar Package, 12Ah Battery
17159560	Regulator, Gen Purp Solar Package, 12Ah Battery
17159562	Regulator, C1D2 Solar Package, 32Ah Battery
17159547	Output Card, 4Channel Analog, Rug9/5 Base Station
17159551	Computer Card, Rug9/Rug5 Base Station
17159554	Loop Charger Card for Rug9/Rug5 Base Station
17159555	Modem Card for Rug9/Rug5 Base Station
17159559	Isolated Relay Card, 8-Chan, Rug9/5 Base Station
17159543	Flow Cup, 1/8" barbs, Toxic Sensors
17159544	Replacement Screens, Plastic Splash Guard (10/pk)
17159545	Plastic Splash Guard Complete
17159552	Ritron UHF Radio, Base Station & RTUs
17159553	Remote LCD Display Screen, Rug9/5 Base Station
17159579	Radio, Digi, 900MHz
17159580	Ritron UHF Radio, TW-XP Field Transmitters
17159581	Stainless Steel Flame Arrestor, Toxic Sensor
17159582	Stainless Steel Flame Arrestor, LEL Sensor
17159583	Stainless Steel Flame Arrestor, PID/Mipex Sensor
17159585	Splash Guard for Flame Arrestor, Stainless Steel, with Cal Nipple
17159586	Enclosure, 316 Stainless Steel, Explosion Proof, Tall Dome, for AC Transmitters & Internal Bracket, Female Banana Jack Sockets, 3 Plugs
17159584	Enclosure, 316 Stainless Steel, Explosion Proof, Short Dome, for DC Transmitters & Internal Bracket, Female Banana Jack Sockets, 3 Plugs





## VENTIS® MX4 MULTI-GAS MONITOR

The Ventis<sup>®</sup> 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<sup>®</sup> 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

Monitor, pump (if applicable), CO,  $H_2S$ ,  $O_2$ , and LEL sensors have a four-year warranty. All other sensors and batteries are warranted for two years.

### **CASE MATERIAL**

Polycarbonate with protective rubber overmold

## DIMENSIONS

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

#### WEIGHT

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 °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 alar
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

Combustible Gases:	0-10
Methane (CH <sub>4</sub> ):	0-5
Oxygen (O <sub>2</sub> ):	0-30
Carbon Monoxide (CO):	0-1,
Hydrogen Sulfide (H <sub>2</sub> S):	0-50
Nitrogen Dioxide (NO <sub>2</sub> ):	0-1
Sulfur Dioxide (SO <sub>2</sub> ):	0-1

0-100% LEL in 1% increments 0-5% of vol in 0.01% increments 0-30% of vol in 0.1% increments 0-1,000 ppm in 1 ppm increments 0-500 ppm in 0.1 ppm increments 0-150 ppm in 0.1 ppm increments

#### SUPPLIED WITH MONITOR

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

\*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. See Product Manual for details.



8

#### VENTIS MX4 MOST COMMON INSTRUMENT CONFIGURATIONS

1	
PART NO.	DESCRIPTION
VTS-K1234100y0z	Ventis MX4, LEL, CO, $H_2S$ , $O_2$ , Slim Extended Li-ion, Desktop Charger, Black
VTS-K1232111y0z	Ventis MX4 with Pump, LEL, CO, $H_2S$ , $O_2$ , Extended Li-ion, Desktop Charger, Safety Orange
VTS-K1034100y1z	Ventis MX4, LEL, CO, O <sub>2</sub> , Slim Extended Li-ion, Desktop Charger, Soft Case, Black
VTS-K1032110y1z	Ventis MX4 with Pump, LEL, CO, $O_2$ , Extended Li-ion, Desktop Charger, Soft Case, Black
VTS-K5234101y0z	Ventis MX4, LEL, SO <sub>2</sub> , $H_2S$ , O <sub>2</sub> , Slim Extended Li-ion, Desktop Charger, Safety Orange
VTS-K1434100y1z	Ventis MX4, LEL, CO, NO <sub>2</sub> , O <sub>2</sub> , Slim Extended Li-ion, Desktop Charger, Soft Case, Black
VTS-K1432111y0z	Ventis MX4 with Pump, LEL, CO, NO <sub>2</sub> , O <sub>2</sub> , Extended Li-ion, Desktop Charger, Safety Orange

y = Agency Certification: 1 = UL/CSA, 2 = ATEX/IECEx, 3 = MSHA, 4 = ANZEx,

5 = China Ex, 7 = EAC(GOST-R/GOST-K), 8 = KC(HOSHA), 9 = INMETRO, A = MED, D = TIIS z = Language: 1 = EN, 2 = FR, 3 = ES, 4 = DE, 5 = ITA, 6 = DUT, 7 = PT, 9 = RUS, A = POL, B = CZE, C = CN, D = DAN, E = NOR, F = FIN, G = SWE, J = JPN

#### VENTIS MX4 REPLACEMENT SENSORS

PART NO.	DESCRIPTION
17134461	Replacement Sensor, Oxygen (O2)
17134479	Replacement Sensor, Hydrogen Sulfide (H <sub>2</sub> S)
17134487	Replacement Sensor, Carbon Monoxide (CO)
17155564	Replacement Sensor, Carbon Monoxide/Low Hydrogen Interference (CO/H <sub>2</sub> low)
17134495	Replacement Sensor, Combustible Gas (LEL/CH <sub>4</sub> )
17134503	Replacement Sensor, Nitrogen Dioxide (NO <sub>2</sub> )
17156917	Replacement Sensor, Combustible Gas (%LEL/CH <sub>4</sub> )*
17143595	Replacement Sensor, Sulfur Dioxide (SO <sub>2</sub> )
17156979	Replacement Sensor, Combustible Gas (%LEL/Isobutane $C_4H_{10}$ )*
* For war with the DOV Oteradeless	

For use with the DSX Standalone.

#### **VENTIS MX4 ACCESSORIES**

PART NO.	DESCRIPTION
17152395	Internal Dust Filter/Water Stop for Ventis Slide-on Pump
18109561	Internal Dust Filter/Water Stop for Ventis with Pump (Pack of 5)
17152429	Ventis diffusion water barrier assembly
17120528	Suspender Clip
17152455	Calibration cup for diffusion instruments

#### **VENTIS MX4 PUMP CONVERSION KIT**

	PART NO.	DESCRIPTION
	Convert your P	umped Ventis MX4 to a Non-Pumped Instrument
	17152828-01	Ventis Conversion Kit, Ventis with Pump to Ventis, Black, UL/CSA/ATEX/IECEx/EAC/KC
	17152828-04	Ventis Conversion Kit, Ventis with Pump to Ventis without Pump, Black, ANZEx
	17152828-11	Ventis Conversion Kit, Ventis with Pump to Ventis, Safety Orange, UL/CSA/ATEX/IECEx/EAC/KC



Ventis MX4 Confined Space Kits Include: Choice of Ventis MX4 with pump monitor, desktop charger, carrying case, calibration tubing, dust filter/water stop, calibration fitting, sample tubing, calibration gas (appropriate mix) with regulator, rugged carrying case.

#### VENTIS MX4 CONFINED SPACE KITS WITH INTEGRAL PUMP

PART NO.	DESCRIPTION
VK-K123211xy1z	Ventis Confined Space Kit - LEL, CO, H <sub>2</sub> S, O <sub>2</sub>
VK-K103211xy1z	Ventis Confined Space Kit - LEL, CO, O <sub>2</sub>
VK-K023211xy1z	Ventis Confined Space Kit - LEL, H <sub>2</sub> S, O <sub>2</sub>
VK-K003211xy1z	Ventis Confined Space Kit - LEL, $O_2$

x = Instrument Color: 0 = Black, 1 = Safety Orange

y = Agency Certification: 1 = UL/CSA, 2 = ATEX/IECEx, 3 = MSHA, 4 = ANZEx, 5 = China Ex, 7 = EAC(GOST-R/GOST-K), 8 = KC(HOSHA), 9 = INMETRO, A = MED, D = TIIS

z = Language: 1 = EN, 2 = FR, 3 = ES, 4 = DE, 5 = ITA, 6 = DUT, 7 = PT, 9 = RUS, A = POL, B = CZE, C = CN, D = DAN, E = NOR, F = FIN, G = SWE, J = JPN



Ventis MX4 Confined Space Kits with Slide-on Pump Include: Ventis with LEL, CO, H<sub>2</sub>S, and O<sub>2</sub> sensors, Ventis Slide-on Pump, 110 VAC desktop charger for each rechargeable instrument ordered (max of 2), calibration cup and tubing with T-fitting, dust filter/water stop, 10 feet of sample tubing, 34 liter cylinder of calibration gas, manual regulator, rugged hard plastic carrying case.

#### **VENTIS MX4 CONFINED SPACE KITS WITH SLIDE-ON PUMP**

PART NO.	DESCRIPTION
VKVSP4-ABCDEF	Ventis MX4 Confined Space Kit with Ventis Slide-on Pump (LEL, CO, $H_2S,O_2)$

- A = LEL Sensor Calibration: K = Pentane, L = Methane B = Instrument Color: 0 = Black, 1 = Safety Orange C = Monitor Battery: 1 = Lithium-ion, 2 = Extended Range Lithium-ion, 3 = Alkaline

- D = Pump Battery: 1 = Lithium-ion, 2 = Extended Range Lithium-ion, 3 = Alkallr
   D = Pump Battery: 1 = Lithium-ion, 2 = Extended Range Lithium-ion
   E = Agency Certification: 1 = UL/CSA, 2 = ATEX/IECEx, 3 = MSHA, 9 = INMETRO
   F = Language: 1 = EN, 2 = FR, 3 = ES, 4 = DE, 5 = ITA, 6 = DUT, 7 = PT, 9 = RUS, A = POL, B = CZE, C = CN, D = DAN, E = NOR, F = FIN, G = SWE, J = JPN

#### VENTIS MX4 MOST COMMON CONFIGURATIONS OF CONFINED SPACE KITS WITH SLIDE-ON PUMP

PART NO.	DESCRIPTION
VKVSP4-K11111	Ventis MX4 Confined Space Kit – LEL (Pentane), CO, $H_2S$ , $O_2$ , Orange, Li-ion Ventis Battery, Li-ion Pump Battery, UL/CSA, English
VKVSP4-L01111	Ventis MX4 Confined Space Kit – LEL (Methane), CO, $H_2S$ , $O_2$ , Black, Li-ion Ventis Battery, Li-ion Pump Battery, UL/CSA, English
VKVSP4-K11211	Ventis MX4 Confined Space Kit – LEL (Pentane), CO, $H_2S$ , $O_2$ , Orange, Li-ion Ventis Battery, Ext. Range Li-ion Pump Battery, UL/CSA, English

PANGO



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**

PART NUMBER	DESCRIPTION
TX2-12011	Tango TX2, CO, $H_2S$ , English
TX2-14011	Tango TX2, CO, $NO_2$ , English
TX2-15011	Tango TX2, CO, SO <sub>2</sub> , English
TX2-1G011	Tango TX2, CO, CO Low, English
TX2-56011	Tango TX2, SO <sub>2</sub> , NH <sub>3</sub> , English
TX2-1B011	Tango TX2, CO, HCN, English
TX2-24011	Tango TX2, $H_2S$ , $NO_2$ , English
TX2-25011	Tango TX2, $H_2S$ , $SO_2$ , English
TX2-2G011	Tango TX2, $H_2S$ , 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
TX2-6B011	Tango TX2, NH <sub>3</sub> , HCN, English

ACCESSORIES

18109330-ABC	<ul> <li>DSX<sup>™</sup> Docking Station for Tango TX2</li> <li>A – DSX Mode: 0 = DSX Standalone, 1 = DSXi Cloud-connected, 2 = DSX-L Local Server</li> <li>B – Number of Gas Inlet Ports: 3 = 3 Ports, 6 = 6 Ports</li> <li>C – Power Cord Type: 1 = North America, 2 = Europe, 3 = Australia, 4 = UK</li> </ul>
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

\* 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. 9,064,386 - AlarmAmp™

#### SPECIFICATIONS\*

#### **INSTRUMENT WARRANTY**

Guaranteed for Life<sup>™</sup>. 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

#### 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 **DIMENSIONS** 

#### 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)

#### SENSORS

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

Ammonia (NH <sub>3</sub> ):	0 to 500 ppm in 1 ppm increments
Carbon Monoxide (CO):	0 to 1,000 ppm in 1 ppm increments
Carbon Monoxide (CO/H <sub>2</sub> low):	0 to 1,000 ppm in 1 ppm increments
Hydrogen Cyanide (HCN):	0 to 30 ppm in 0.1 ppm increments
Hydrogen Sulfide (H <sub>2</sub> S):	0.0 to 500.0 ppm in 0.1 ppm increments
Nitrogen Dioxide (NO <sub>2</sub> ):	0.0 to 150.0 ppm in 0.1 ppm increments
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-SOCI2); 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 C	LASSIFICATION STANDARDS
ATEX <sup>1</sup> :	Ex ia I Ma;
Ex ia IIC T4 Ga; EN 60079-0: EN 60079-11:	Equipment Group and Category: I M1 and II 1G, 2012 2012
EN 50303:	2000
IECEx <sup>3</sup> IEC 60079-0: 2011 IEC 60079-11:2011	Ex ia I Ma, Ex ia IIC T4 Ga
UL (C-US)4:	Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; T4; Exia Class I, Zone 0, AEx ia IIC T4
UL 913 8th Ed. UL 60079-0 6th Ed. UL 60079-11 6th Ed. CSA C22.2 No. 157	





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<sup>™</sup> 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.

## 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% Vol)	CO	IR CH4	H2
LEL (Methane)	CO High	IR CO <sub>2</sub>	HCN
LEL (Pentane)	CO/H <sub>2</sub> Low	IR CO <sub>2</sub> /CH <sub>4</sub>	NНз
O2	CO/H <sub>2</sub> S	IR CO2/LEL	PH₃
H <sub>2</sub> S	SO <sub>2</sub>	IR HC	PID
Cl <sub>2</sub>	NO <sub>2</sub>	ULP IR CH4	
		ULP IR HC	

### SPECIFICATIONS\*

#### WARRANTY

Guaranteed for Life<sup>™</sup>. Warranted for as long as the instrument is supported by Industrial Scientific Corporation (Excludes sensors, batteries, and filters). Pump and O<sub>2</sub>, LEL, CO, and H<sub>2</sub>S sensors warranted for four years. PID sensor warranted for one year. All other sensors and batteries are warranted for two years.

11

#### **KEYPAD**

Two buttons for operation. Dedicated panic button.

#### **DATA LOG**

At least 3 months at 10-second intervals

**EVENT LOGGING** 60 alarm events

**INGRESS PROTECTION** 

IP68 (submersion at 1.5 meters for 1 hour)

#### **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 and cellular battery

#### WEIGHT

200 g (7.05 oz) typical, without Pump 390 g (13.76 oz) typical, with Pump 243 g (8.5 oz) typical, with wi-fi battery 247 g (8.7 oz) typical, with cellular battery

#### **HUMIDITY RANGE**

15% to 95% non-condensing (continuous)

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

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

## COMMUNICATION

LENS<sup>™</sup> 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<sup>†</sup>

## CELLULAR\*\*\* LTE CAT M1

US: AT&T, Verizon Canada: Bell, Rogers, Telus Brazil: Claro

WI-FI

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

Test Drive the Ventis Pro5 with the Instrument Simulator www.indsci.com/VentisProSimulator

#### **SPECIFICATIONS\***

#### CERTIFICATIONS

12

**INGRESS PROTECTION IP68** 

ANZEx:	Ex ia I Ma/Ex ia IIC T4 Ga, -40 °C ≤ Ta ≤ 50 °C
	Ex d ia I Mb/Ex d ia IIC T4 Gb IR sensor, -20 °C $\leq$ Ta $\leq$ 50 °C IR sensor
ATEX:	Equipment Group and Category II 1G, Ex ia IIC, Ga, T4
	Equipment Group and Category II 2G, Ex d ia IIC, Gb, T4, IR sensor
China CPC:	CPA 2017-C103
China Ex:	Ex ia IIC T4 Ga, -40 °C $\leq$ Ta $\leq$ 50 °C; Ex d ia IIC T4 Gb IR sensor,
	-20 °C ≤ Ta ≤ 50 °C IR sensor
CSA:	CI I, Div 1, Gr A-D, T4; CI I, Zone 1, Ex d ia IIC, T4   C22.2
	No. 152 for % LEL reading only   70046111
IECEx:	Cl I, Zone O, Ex ia IIC, Ga, T4; Cl I, Zone 1, Ex d ia IIC, Gb, T4, IR sensor
INMETRO:	Ex ia IIC T4 Ga, -40 °C ≤ Ta ≤ 50 °C
	Ex d ia IIC T4 Gb IR sensor, -20 °C $\leq$ Ta $\leq$ 50 °C IR sensor
KC:	Ex d ia IIC T4
MSHA:	30 CFR Part 22; Permissible for underground mines
PA-DEP:	BFE 46-12 Permissible for PA Bituminous underground mines
UL:	CI I, Div 1, Gr A-D, T4; CI II, Div 1, Gr E-G, T4
	CI I, Zone O, AEx ia IIC, T4; CI I, Zone 1, AEx d ia II C, T4, IR sensor
Ventis Pro5	with wi-fi and cell: only certified to ATEX, IECEx, UL and CSA

## See www.indsci.com/ventispro for all certifications.

**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 (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
- Rechargeable Cellular Lithium-ion battery (no Pump option) (14 hours typical @ 20 oC) with LEL

#### WIRELESS CERTIFICATIONS

Ventis Pro5 Instruments: FCC, ISED - Canada, EU Radio Equipment Directive (R.E.D.) and many other countries

Ventis Pro5 with LTE Cat M1Cellular: FCC, ISED-Canada, PTCRB, AT&T and Verizon, Anatel-Brazil

#### SUPPLIED WITH MONITOR

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

#### LANGUAGE

English, French, Spanish, German, Italian, Dutch, Portuguese, Polish

## Build and price your Ventis Pro5 online with the Instrument Builder www.indsci.com/ventisprobuilder







17156850

17156849 Yellow Nameplate

17156848 Blue Nameplate Green Nameplate

Will You Use the Ventis Pro to Monitor **Confined Spaces?** 



Ventis Pro5 Confined Space Kits Include: Ventis Pro5 instrument with integral pump, desktop charger, reference guide, calibration tubing with T-fitting, dust filter/water stop, sample tubing, calibration gas (appropriate mix) with manual regulator, and rugged hard plastic case.

#### VENTIS PRO5 CONFINED SPACE KITS WITH INTEGRAL PUMP

PART NO.	DESCRIPTION
V5K-KJ5Y211xy0z	Ventis Pro5 Confined Space Kit – LEL (Pentane), CO/H <sub>2</sub> S, SO <sub>2</sub> , O <sub>2</sub>
V5K-KJ4Y211xy0z	Ventis Pro5 Confined Space Kit – LEL (Pentane), CO/H <sub>2</sub> S, NO <sub>2</sub> , O <sub>2</sub>
V5K-KJ6Y211xy0z	Ventis Pro5 Confined Space Kit – LEL (Pentane), CO/H <sub>2</sub> S, NH <sub>3</sub> , O <sub>2</sub>

Y = Long-Life Oxygen Sensor

- x = Instrument Color: 0 = Black, 1 = Safety Orange
- y = Agency Certification: 1 = UL/CSA, 2 = ATEX/IECEx, 3 = MSHA, 9 = INMETRO

0 = Non-wireless

z = Language: 1 = EN, 2 = FR, 3 = ES, 4 = DE, 5 = IT, 6 = DU, 7 = PT, A = PL

#### VENTIS PRO5 MOST COMMON INSTRUMENT CONFIGURATIONS

PART NO.	DESCRIPTION
VP5-KJ5Y2111101	Ventis Pro5 with Pump – LEL (Pentane), $CO/H_2S$ , $SO_2$ , $O_2$ , Extended Li-ion, Desktop Charger, Safety Orange
VP5-KJ4Y4101101	Ventis Pro5 – LEL (Pentane), CO/H <sub>2</sub> S, NO <sub>2</sub> , O <sub>2</sub> , Slim Extended Li-ion, Desktop Charger, Safety Orange
VP5-KJ6Y2110101	Ventis Pro5 with Pump – LEL (Pentane), CO/H <sub>2</sub> S, NH <sub>3</sub> , $O_2$ , Extended Li-ion, Desktop Charger, Black
VP5-U12Y2110101	Ventis Pro5 with Pump – $CO_2/LEL$ IR, CO, H <sub>2</sub> S, O <sub>2</sub> , Extended Li-ion, Desktop Charger, Black

#### **VENTIS PRO5 NAMEPLATES**

PART NO.	DESCRIPTION
Better manage your fleet of instruments using color-coded nameplates on your Ventis Pro instruments.	
17156848	Ventis Pro5 Nameplate, Blue
17156849	Ventis Pro5 Nameplate, Yellow
17156850	Ventis Pro5 Nameplate, Green

#### **VENTIS PRO5 iASSIGN ACCESSORIES**

PART NO.	DESCRIPTION
Use iAssign Tags and Beacons to manage the users and sites associated with your Ventis Pro instruments.	
18109417	iAssign Tag, Standard (10 pack)
18109418	iAssign Tag, Waterproof (10 pack)
18109419	iAssign Tag, All Weather Outdoor (10 pack)
18109420	iAssign Tag, Keychain (10 pack)
18109434	iAssign Tag, Sample Pack (1 each of the 4 tag types)
18109491	iAssign Beacon
17159316	Standby Clip (TM) Accessory

## CONVERT YOUR NON-PUMPED VENTIS PRO5 INSTRUMENT TO AN INSTRUMENT WITH AN INTEGRATED PUMP

PART NO.	DESCRIPTION
VPP-0011	Ventis Pro5 with Pump, No Battery, Black, UL/CSA, English
VPP-2011	Ventis Pro5 with Pump, Lithium-ion Extended Range Battery, Black, UL/CSA, English
VPP-0111	Ventis Pro5 with Pump, No Battery, Safety Orange, UL/CSA, English
VPP-2111	Ventis Pro5 with Pump, Lithium-ion Extended Range Battery, Safety Orange, UL/CSA, English

#### **VENTIS PRO5 REPLACEMENT SENSORS**

PART NO.	DESCRIPTION
17155306-1	Replacement Sensor, Ventis Pro5, Carbon Monoxide, 6 Series
17155306-2	Replacement Sensor, Ventis Pro5, Hydrogen Sulfide, 6 Series
17155304-2	Replacement Sensor, Ventis Pro5, Hydrogen Sulfide, 4 Series
17155304-3	Replacement Sensor, Ventis Pro5, Oxygen (O <sub>2</sub> ), 4 Series
17155304-Y	Replacement Sensor, Ventis Pro5, Long-Life Oxygen $(O_2)$
17155306-Y	Replacement Sensor, Ventis Pro5, Oxygen $(O_2)$ , 6 Series
17155306-4	Replacement Sensor, Ventis Pro5, Nitrogen Dioxide, 6 Series
17155306-5	Replacement Sensor, Ventis Pro5, Sulfur Dioxide (SO <sub>2</sub> ), 6 Series
17155306-6	Replacement Sensor, Ventis Pro5, Ammonia (NH <sub>3</sub> ), 6 Series
17155306-9	Replacement Sensor, Ventis Pro5, Phosphine (PH <sub>3</sub> ), 6 Series
17155306-B	Replacement Sensor, Ventis Pro5, Hydrogen Cyanide (HCN), 6 Series
17155306-G	Replacement Sensor, Ventis Pro5, Carbon Monoxide/Low Hydrogen Interference (CO/H2 low), 6 Series
17155306-J	Replacement sensor, Ventis Pro5, Carbon Monoxide/ Hydrogen Sulfide (COSH), 6 series
17155304-J	Replacement Sensor, Ventis Pro5, Carbon Monoxide/ Hydrogen Sulfide (COSH), 4 Series
17155304-K	Replacement Sensor, Ventis Pro5, LEL (Pentane), 4 Series Catalytic
17155304-L	Replacement Sensor, Ventis Pro5, LEL (Methane), 4 Series Catalytic
17155304-M	Replacement Sensor, Ventis Pro5, CH <sub>4</sub> (0-5% vol), 4 Series Catalytic
17155304-N	Replacement Sensor, Ventis Pro5, CH₄ (0-100% vol), 4 Series IR
17155304-P	Replacement Sensor, Ventis Pro5, Hydrocarbon (0-100% LEL), 4 Series IR
17155304-U	Replacement Sensor, Ventis Pro5, Carbon Dioxide/ Hydrocarbon (CO2/LEL), 4 Series IR
17155304-V	Replacement Sensor, Ventis Pro5, Carbon Dioxide/ Methane (CO <sub>2</sub> /CH <sub>4</sub> ), 4 Series IR
17155304-0	Replacement Sensor, Ventis Pro5, Carbon Dioxide $(CO_2)$
17156920	DualSense Pack, Ventis Pro5, Oxygen $(O_2)$ , 4 Series
17156919	DualSense Pack, Ventis Pro5, Carbon Monoxide/ Hydrogen Sulfide (COSH), 6 Series
17157781	DualSense Pack, Ventis Pro5, Carbon Monoxide (CO)
17157782	DualSense Pack, Ventis Pro5, Hydrogen Sulfide (H <sub>2</sub> S)
17157783	DualSense Pack, Ventis Pro5, Sulfur Dioxide (SO <sub>2</sub> )
17155306-7	Replacement Sensor, Ventis Pro5, Chlorine (Cl <sub>2</sub> )
17155304-C	Replacement Sensor, Ventis Pro5, Hydrogen (H <sub>2</sub> )
17155306-H	Replacement Sensor, Ventis Pro5, Carbon Monoxide High (CO High)

PART NO.	DESCRIPTION
17155304-R	Replacement Sensor, Ventis Pro5, PID (VOC's), 4 Series
17155304-S	Replacement Sensor, Ventis Pro5, Ultra Low Power IR (CH4), 4 Series
17155304-T	Replacement Sensor, Ventis Pro5, Ultra Low Power IR (Hydro Carbon), 4 series

#### **VENTIS PRO5 REPLACEMENT FILTERS AND ACCESSORIES**

PART NO.	DESCRIPTION
18109613	Speaker dust barriers for Ventis Pro5 (pack of 10)
18109436	Sensor Barrier Assembly, Ventis Pro5 (Includes gasket and membrane for both upper and both lower sensors)
17156945-0	Replacement Ventis Pro5 Integral Pump Door, Black
17156945-1	Replacement Ventis Pro5 Integral Pump Door, Orange
17152395	Replacement Dust Filter/Water Stop for Ventis Slide-on Pump
17129909	Replacement Inlet Cap
17159316	Alarm Silencer for Ventis Pro5

#### **VENTIS CHARGERS**

PART NO.	DESCRIPTION	
Chargers are compatible with all standard, extended, or slim extended Li-ion batteries.		
18108191	Single-Unit Charger	
18108209	Single-Unit Charger/Datalink (includes software)	
18108651	Single-Unit Automotive Charger, 12VDC	
18108652	Single-Unit Truck Mount Charger, 12VDC, with Cigarette Adapter	
18108653	Single-Unit Truck Mount Charger, 12VDC, Hard Wired	
18108650-A	6-Unit Charger: A - Power-Cord Type 0 = US 4 = ITA 1 = UK 5 = DEN 2 = EU 6 = SWZ 3 = AUS	

#### **V•CAL FOR VENTIS**

PART NO.	DESCRIPTION
18108631-AB	V•Cal <sup>™</sup> Calibration Station A = Instrument type: 0 = Ventis, 1 = Ventis with Pump B = Power Cord Type: 0 = US, 1 = UK, 2 = EU, 3 = AUS, 4 = ITA, 5 = DEN, 6 = SWZ
18107763	Serial data dot matrix printer for V●Cal <sup>™</sup> – 5 volt printer powered by the calibration station enables calibration report printing
17135518	V•Cal Printer Paper
17127044	V•Cal Printer Toner
17109919	Fresh Air Filter

#### **VENTIS CASES**

PART NO.	DESCRIPTION		
Nylon carrying c	Nylon carrying cases are soft fabric cases with a wrist strap.		
18108175	Nylon Carrying Case, Ventis without Pump, Li-ion Battery		
18108183	Nylon Carrying Case, Ventis without Pump, Extended Li-ion Battery, Slim Extended Li-ion Battery, or Alkaline Battery		
18108810	Nylon Carrying Case, Ventis with Pump		
Leather carrying cases feature rigid high-quality leather and provide protection for your instrument against scratches and impact.			
18109517	Leather Carrying Case with Display, Ventis Pro with Pump (includes cutout for Panic Button)		

#### **VENTIS BATTERIES**

14

#### SLIM EXTENDED BATTERIES

Provide 18 hours of run time when used with a non-pumped instrument at room temperature with LEL,  $O_2$ ,  $H_2S$ , and CO sensors.

PART NO.	DESCRIPTION	COMPATIBLE WITH:
VTSB-4XY	Ventis Slim Extended Li-ion Battery Kit	Ventis MX4 Instruments Ventis Pro5 Instruments
	X = Color: 0 = Black, 1 = Orange (Ventis MX4 only) Y = Certifications: 1 = UL/CSA/ATEX/IECEx	

#### **STANDARD BATTERIES**

Provide 12 hours of run time when used with a non-pumped instrument at room temperature with LEL,  $O_2$ ,  $H_2S$ , and CO sensors.

PART NO.	DESCRIPTION	COMPATIBLE WITH:
VTSB-1XY	Ventis Li-ion Battery Kit	Ventis MX4 Instruments Ventis Pro5 Instruments Ventis Slide-on Pumps
	X = Color: 0 = Black, 1 = Oran Y = Certifications: 1 = UL/CS, KC (KOSHA)/MED/SANS 2 = MSHA 3 = China EX 4 = ANZEx 5 = IMMETRO D = TIIS	ge (Ventis MX4 only) A/ATEX/IECEx/EAC (GOST-R-GOST-K)/ 1515

#### EXTENDED RUN TIME BATTERIES

Provide 12 hours of run time when used with pumped instrument at room temperature with LEL,  $0_2,\,H_2S,$  and CO sensors.

PART NO.	DESCRIPTION	COMPATIBLE WITH:
VTSB-2XY	Ventis Extended Li-ion Battery Kit X = Color Y = Certifications	Ventis MX4 Instruments Ventis Pro5 Instruments Ventis Slide-on Pumps
17148313-Y	Battery Pack, Li-ion, Extended, Ventis Y = Certifications	Ventis MX4 Instruments with pump Ventis Pro5 Instruments with pump
	X = Color: 0 = Black, 1 = Oran Y = Certifications: 1 = UL/CS, KC (KOSHA)/MED/SANS 2 = MSHA 3 = China EX 4 = ANZEx 5 = IMMETRO D = TIIS	ge (Ventis MX4 only) A/ATEX/IECEx/EAC (GOST-R-GOST-K)/ 1515

#### **ALKALINE BATTERIES**

Uses 2 AAA batteries for a quick in-field battery replacement. Provides 8 hours of run time with a non-pumped instrument and 4 hours of run time with a pumped instrument. Run time estimates are made at room temperature using LEL,  $O_2$ ,  $H_2S$ , and CO sensors.

PART NO.	DESCRIPTION	COMPATIBLE WITH:
VTSB-3XY	Ventis MX4 Alkaline Battery Kit X = Color Y = Certifications	Ventis MX4 Instruments
17150608	Battery Pack, AAA, Ventis MX4	Ventis MX4 Instruments with pump
17154577-XY	Kit, Battery, Alkaline, VSP X = Color Y = Certifications	Ventis Slide-on Pumps
	X = Color: 0 = Black, 1 = Oran Y = Certifications: 1 = UL/CS. KC (KOSHA)/MED/SANS 2 = MSHA 3 = China EX 4 = ANZEx 5 = IMMETRO C = CHINA KA D = TIIS	ge (Ventis MX4 only) A/ATEX/IECEx/EAC (GOST-R-GOST-K)/ 1515

#### **CELLULAR VENTIS PRO5**

PART NO.	DESCRIPTION
VP5-K123B101y1z	Ventis Pro5, LEL, CO, H2S, O2, Verizon Li-ion, desktop charger, orange, LENS®
VP5-K123C101y1z	Ventis Pro5, LEL, CO, H2S, O2, AT&T Li-ion, desktop charger, orange, LENS®
VP5-KJ53B101y1z	Ventis Pro5, LEL, CO/H2S, SO2, O2, Verizon Li-ion, desktop charger, orange, LENS®
VP5-KJ53C101y1z	Ventis Pro5, LEL, CO/H2S, SO2, O2, AT&T Li-ion, desktop charger, orange, LENS®
17152395	Replacement Dust Filter/Water Stop for Ventis Slide-on Pump

Y = Agency Certification, z = Language

### **WI-FI VENTIS PRO5**

PART NO.	DESCRIPTION
VP5-K123A101y1z	Ventis Pro5, LEL, CO, H2S, O2, Wi-Fi Li-ion, desktop charger, orange, LENS®
VP5-KJ53A101yz	Ventis Pro5, LEL, CO/H2S, SO2, O2, Wi-Fi Li-ion, desktop charger, orange, LENS®
VTSB-A01	Ventis Wi-Fi Li-ion Battery, Black, UL/CSA/ATEX/IECEx (replacement battery)

Y = Agency Certification, z = Language





The Ventis<sup>®</sup> Slide-on Pump is ideally suited for operators who wear their gas monitors for personal protection but occasionally require a pump for confined space entries. Available in black or safety orange and powered by its own battery, the slide-on pump is compatible with the Ventis MX4 and Ventis Pro5 Multi-Gas Monitors.

#### SPECIFICATIONS\*

#### WARRANTY

Four-year warranty, excluding consumables (i.e. filters)

Polycarbonate with protective rubber overmold

#### SAMPLE DRAW CAPABILITY

Up to 15.2 meters (50 feet)

#### DIMENSIONS

143 x 81 x 68 mm (5.6 x 3.2 x 2.7 in) Lithium-ion Battery version 143 x 81 x 85 mm (5.6 x 3.2 x 3.3 in) Extended Range Lithium-ion Battery version 143 x 81 x 73 mm (5.6 x 3.2 x 2.9 in) Alkaline Battery version

### WEIGHT

270 g (9.5 oz) Lithium-ion Battery version 316 g (11.2 oz) Extended Range Lithium-ion Battery version 284 g (10.0 oz) Alkaline Battery version

#### **OPERATING TEMPERATURE RANGE** -20 °C to 50 °C (-4 °F to 122 °F)

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

## **POWER SOURCE/RUN TIME**

Rechargeable Lithium-ion battery, 18 hours @ 20 °C Rechargeable Extended Range Lithium-ion battery, 36 hours @ 20 °C Replaceable AAA alkaline battery, 10 hours @ 20 °C

#### PUMP FAULT ALARMS

Ultra-bright LEDs Loud audible alarm (90 dB at 30 cm)

#### **IP RATING**

Third-party certified IP67 CERTIFICATIONS

### INGRESS PROTECTION: IP66/67

ATEX: Ex ia I Ma/Ex ia IIC T4 Ga; Equipment Group/Category: I M1/II 1G China Ex: Ex ia IIC T4 Ga CSA: CI I, Div 1, Group A-D, T4; Ex ia IIC T4 GOST- EAC: 0 Ex ia IIC X T4; P0 Ex ia I X IECEx: Ex ia IIC T4 Ga INMETRO: Ex ia IIC T4 Ga UL: CI I, Div 1, Gr A-D, T4; CI I, Zone 0, AEx ia IIC T4 Ga; CI II, Gr F-G (Carbonaceous and Grain Dust)

#### VENTIS SLIDE-ON PUMP – MODEL#VSP MATRIX

<b>EXAMPLE:</b> 18109162-1111 – Ventis Slide-on Pump, lithium-ion battery, Safety Orange, UL/CSA, EN-FR-ES-DE-CN	18109162-	1	1	1	1
DESCRIPTION	Base	Battery	Color	Approvals	Language
Ventis Slide-on Pump	18109162-				
Select options below in addition to base					
BATTERY					
Lithium-ion battery		1			
Extended range lithium-ion battery		2			
Alkaline battery		3			
COLOR					
Black			0		
Safety Orange			1		
APPROVALS					
UL/CSA				1	
ATEX / IECEx				2	
China EX				5	
GOST-EAC				7	
INMETRO				9	
LANGUAGE					
English, French, Spanish, German, Chinese					1
Italian Polish Czech Portuguese Bussian					2



VTSB-201 Extended Range Lithium-ion Battery Kit



17151184-11 Extended Range Lithium-ion Battery Cover



17154577-11 Alkaline Battery Kit

#### **VENTIS SLIDE-ON PUMP ACCESSORIES**

18109207-10	Urethane sample tubing kit 3.048 meters (10 feet)
17152395	Internal Dust Filter/Water Stop for Ventis Slide-on Pump
18109561	Internal Dust Filter/Water Stop for Ventis with Pump (Qty. 5)
17154853-5	Exhaust filter (5 pack)
17154581-5	Audible alarm filter (5 pack)
17157329-X	Replacement door, Ventis Pro/Ventis MX4 compatible
17129909	Replacement Inlet Cap
18109623	External filter kit

\*All specifications are based on a typical instrument and typical performance of the instrument, and are subject to variability.

NOTE: Charger is not included with the Ventis Slide-on Pump. The Ventis Slide-on Pump uses the standard Ventis chargers (18108191, 18108209, 18108651, 18108652, 18108653, 18108650-A) shown on the Ventis MX4 page. "X" denotes color where 0 = Black, 1 = Safety Orange "Y" denotes approvals where 1 = UL, CSA, ATEX, IECEX, INMETRO, and GOST- EAC; 3 = China EX

### MULTI-GAS MONITORS



## MX6 iBRID® MULTI-GAS MONITOR

The MX6 iBrid<sup>®</sup> 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  ${}^{\mathbb{M}**}.$  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 RANGES	BANGE	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
Hydrogon (H.)	0.2.000 ppm	1
Hydrogen Chloride (HCI)	0-2,000 µµIII	0.1
Hydrogen Cyceride (HCN)	0.20 ppm	0.1
Hydrogon Sulfido (H.S)	0-50 ppm	0.1
Nitrio Ovido (NO)	0 1 000 ppm	1
Nitrogon Diovido (NO.)	0.150 ppm	0.1
	0.200/ yol	0.1
Phosphine (PH_)	0 5 ppm	0.1 %
Phosphine (PH, High Bango)	0-3 ppm	1
Sulfur Dioxido (SQ.)	0 150 ppm	0.1
INIERABED		0.1
	0.1000/ 1.51	1.0/
Hydrocarbons	0-100% LEL	1%
IVietnane (LH <sub>4</sub> % VOI)	U-100% V01	1%
$\frac{1}{1}$	0-100% LEL	1%
	U-5% VOI	0.01%
PHUTUIUNIZATIUN		
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<sup>™</sup> Program are included with all products and are available upon request.

### MX6 iBRID MOST COMMON INSTRUMENT CONFIGURATIONS

PART NO.	DESCRIPTION
MX6-K1230201	MX6 iBrid LEL (Pentane), CO, $H_2S$ , $O_2$ , Ext. Li-ion
MX6-K123R211	MX6 iBrid with Pump, LEL (Pentane), CO, $H_2S$ , $O_2$ , PID, Ext. Li-ion
MX6-L1230211	MX6 iBrid with Pump, LEL (Methane), CO, $H_2S$ , $O_2$ , Ext. Li-ion
MX6-M1030211	MX6 iBrid with Pump, (Methane), CO, $O_2$ , $CO_2$ IR, Ext. Li-ion
MX6-K1235211	MX6 iBrid with Pump, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , Ext. Li-ion,
MX6-KJ635201	MX6 iBrid LEL (Pentane), CO/H <sub>2</sub> S, NH <sub>3</sub> , O <sub>2</sub> , SO <sub>2</sub> , Ext. Li-ion

### MX6 iBRID MOST COMMON INDUSTRY CONFIGURATIONS

MX6-KJ53R211	MX6 iBrid with Pump, LEL, CO/H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , PID, Ext. Li-ion, Petroleum Refining
MX6-K1030211	MX6 iBrid with Pump, LEL, CO, O <sub>2</sub> , CO <sub>2</sub> , Ext. Li-ion, Brewing/Bottling/Wineries
MX6-K673R211	MX6 iBrid with Pump, LEL, O <sub>2</sub> , NH <sub>3</sub> , Cl <sub>2</sub> , PID, Ext. Li-ion, Hazmat
MX6-M1030501	MX6 iBrid CH <sub>4</sub> (%), CO, O <sub>2</sub> , Ext. Li-ion (MSHA/AUS) Mining
MX6-M1D34501	MX6 iBrid CH <sub>4</sub> (%), CO, O <sub>2</sub> , NO <sub>2</sub> , NO, Ext. Li-ion (MSHA/AUS) Mining (Diesel Applications)

## MX6 iBRID MAINTENANCE

PART NO.	DESCRIPTION
18109329-ABC	DSX Docking Station for MX6 iBrid
-ABC	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 = EU, 3 = AUS, 4 = UK



## Confined Space Kit

Choice of MX6 iBrid monitor, universal charger, nylon carrying case, belt clip, calibration cup, wrist strap, maintenance tool, quick start guide, calibration tubing, dust filter/water stop (with pump), calibration fitting (with pump), sample tubing (with pump), calibration gas (appropriate mix) with regulator, spare replaceable cell alkaline battery, rugged Pelican<sup>®</sup> case.

#### MX6 iBRID CONFINED SPACE KITS

PART NO.	DESCRIPTION
MX6KIT-0000R211	MX6 iBrid Confined Space Kit with Pump, PID, Ext. Li-ion
MX6KIT-K1230211	MX6 iBrid Confined Space Kit with Pump, LEL, $O_2$ , CO, $H_2S$
MX6KIT-K123R211	MX6 iBrid Confined Space Kit with Pump, LEL, $O_2$ , CO, $H_2S$ , PID





## MX6 iBRID REPLACEMENT SENSORS

	PART NO.	DESCRIPTION
	17124975-1	Replacement sensor, Carbon Monoxide (CO)
	17124975-2	Replacement sensor, Hydrogen Sulfide (H <sub>2</sub> S)
	17124975-3	Replacement sensor, Oxygen (O <sub>2</sub> )
	17124975-4	Replacement sensor, Nitrogen Dioxide ( $NO_2$ )
	17124975-5	Replacement sensor, Sulfur Dioxide (SO <sub>2</sub> )
	17124975-6	Replacement sensor, Ammonia (NH <sub>3</sub> )
	17124975-7	Replacement sensor, Chlorine (CL <sub>2</sub> )
	17124975-8	Replacement sensor, Chlorine Dioxide (CIO <sub>2</sub> )
	17124975-9	Replacement sensor, Phosphine (PH <sub>3</sub> ) (Low)
	17124975-A	Replacement sensor, Hydrogen Chloride (HCI)
	17124975-B	Replacement sensor, Hydrogen Cyanide (HCN)
	17124975-C	Replacement sensor, Hydrogen (H <sub>2</sub> )
	17124975-D	Replacement sensor, Nitric Oxide (NO)
	17124975-E	Replacement sensor, Phosphine ( $PH_3$ ) (high)
	17124975-G	Replacement sensor, Carbon Monoxide (H <sub>2</sub> low)
	17124975-H	Replacement sensor, Carbon Monoxide (high)
	17124975-J	Replacement sensor, Carbon Monoxide/Hydrogen Sulfide ( $CO/H_2S$ )
	17124975-K	Replacement sensor, %LEL (Pentane)
	17124975-L	Replacement sensor, %LEL (Methane)
	17124975-M	Replacement sensor, Methane (0-5% volume)
	17124975-N	Replacement sensor, Methane IR (0-100% volume)
	17124975-P	Replacement sensor, Hydrocarbons IR (0-100% LEL)
	17124975-Q	Replacement sensor, Carbon Dioxide IR (0-5% volume)
	17124975-R	Replacement sensor, PID (VOCs)
	17124975-S	Replacement sensor, Methane (0-100% LEL)
	17134701	Sensor Plug

## MX6 iBRID ACCESSORIES

PART NO.	DESCRIPTION
17127762	Belt clip
17130964	MX6 Display cover with keypad
18106880-0	MX6 with pump hard leather carrying case
18106880-1	MX6 with pump hard leather case without display
18106831	Nylon carrying case, supplied with MX6 without pump
18106864	Nylon carrying case, supplied with MX6 with pump
17095746	MX6 Maintenance tool
17128737	Wrist strap

### **MX6 iBRID BATTERIES AND CHARGERS**

PART NO.	DESCRIPTION
18106971	MX6 Replacement battery charger
18107094	MX6 Battery charger/Datalink, universal
18107011	MX6 Battery charger, 12V
18107136	MX6 Battery charger, 5-unit
18107243	MX6 Truck-mount charger, 12V
18107250	MX6 Truck-mount charger, (hard-wired)
17131038-2	Rechargeable Li-ion Ext. battery (UL/CSA/ATEX/ IECEx/INMETRO/GOST-R/KOSHA)
17131038-5	Rechargeable Li-ion Ext. battery (MSHA/AUS)
17131046-3	Alkaline battery (UL/CSA/ATEX/IECEx/ INMETRO/GOST-R/KOSHA)
17131046-6	Alkaline battery, MSHA/AUS

### MX6 iBRID PUMP AND ACCESSORIES

PART NO.	DESCRIPTION
18106765	SP6 Motorized Sampling Pump Module
17058157	Internal Dust Filter/Water Stop
18109560	Internal Dust Filter/Water Stop (Pack of 5)
17129909	Replacement Inlet Cap
17155011	Calibration Tubing Assembly with T fitting*

 $\ensuremath{^*\text{For}}$  use when calibrating a monitor with pump using a positive flow regulator



Built for the world's harshest environments, the Radius<sup>®</sup> BZ1 Area Monitor is always working – even when you're not. With the ability to leave the area monitor in the field for nearly two months on battery or indefinitely with external power supplies you can control and monitor up to seven hazards anywhere across your site – ensuring the right level of response when workers are exposed to those dangers. Plus, with the ability to seamlessly share alarms between monitors, you can rest assured that someone's always got your back.

## Up and Running, Even When You Aren't

- Runtime up to 50 days on battery (based on configuration)\*
- Unlimited runtime with external power supply options
- Removable sensor module leave the device in the field and minimize downtime by swapping ready-to-use sensor modules without removing the entire device from its location

#### **RADIUS BZ1 EXPECTED RUNTIME**

Configuration	Power Source	Expected Run Time
Standard 4-Gas (LEL-IR, H2S, CO, O2)	Built-in Battery	Up to 50 days
Standard 4-Gas with Wireless Communication (LEL-IR, H2S, CO, O2)	Built-in Battery	Up to 30 days
Standard 4-Gas (LEL-IR, H2S, CO, O2)	External Power Supplies (Solar, IS, Non-IS)	Unlimited
Standard 4-Gas with Wireless Communication (LEL-IR, H2S, CO, O2)	External Power Supplies (Solar, IS, Non-IS)	Unlimited

## Trusted Reliability to Keep Teams Safe

- Detect up to seven gases simultaneously (including PID)
- Get more accurate detection with all-weather sensor options and the ability to detect gases across a 360-degree path
- Reliably alert workers to all hazards with:
  - o Bold LED lights
  - o Alarms that sound at 108dB, cutting right through any high-noise environment
  - o Large, easy-to-read display

## Make Quicker Decisions

- Customizable alarm messages such as "EVACUATE" or "VENTILATE"
- Seamlessly share alarms between personal and area monitors across an entire site with our LENS<sup>™</sup> Wireless technology
- Ensure accurate readings and reduces false alarms by relying on two sensors to detect the same gas with DualSense<sup>®</sup> technology

19

### SPECIFICATIONS\*

#### WARRANTY

Two-year warranty, including sensors and battery

#### **KEYPAD**

Three buttons

## DATA LOG

At least 3 months at 10-second intervals

## **EVENT LOGGING**

60 alarm events

## INGRESS PROTECTION

### 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)

## TEMPERATURE RANGE

-20 °C to 55 °C (-4 °F to 131 °F)

## HUMIDITY RANGE

15% to 95% non-condensing (continuous)

## **DISPLAY/READOUT**

11.2 cm (4.4 in) monochrome backlit graphical liquid crystal display (LCD)

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

Rechargeable nickel-metal hydride (NiMH) battery pack ≤8 hour recharge time

## ALARMS

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

## SENSORS

Up to 6 sensors (catalytic bead, photoionization detector, electrochemical, an infrared) Up to 7 simultaneous readings

Build & price your Radius BZ1 online with the Instrument Builder www.indsci.com/radius-builder

<sup>\*</sup> Devices relying on a wireless connection feature a runtime up to 30 days; devices without a wireless connection feature a runtime up to 50 days. Additional configurations may affect runtime depending on your site and application.

## SPECIFICATIONS\*

## MEASURING RANGES

CATALYTIC BEAD Combustible Gases:

ELECTROCHEMICAL Ammonia (NH<sub>3</sub>): Carbon Monoxide (CO): Carbon Monoxide (CO High Range): Carbon Monoxide (CO/H<sub>2</sub> Low): Carbon Monoxide/Hydrogen Sulfide:

Chlorine (Cl<sub>2</sub>): Hydrogen (H<sub>2</sub>): Hydrogen Sulfide (H<sub>2</sub>S): Hydrogen Cyanide (HCN): Nitrogen Dioxide (HCN): Oxygen (O<sub>2</sub>): Sulfur Dioxide (SO<sub>2</sub>): Phosphine (PH<sub>3</sub>): Nitric Oxide (NO): Chlorine Dioxide (CLO2) Hydrogen Chloride (HCL)

#### INFRARED

Carbon Dioxide (CO<sub>2</sub>): Hydrocarbon (HC) Methane (CH4)

PHOTOIONIZATION

Volatile Organic Compounds (10.6 eV): 0-2,000 ppm in 0.1 ppm increments

0-100% LEL in 1% increments

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

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

0-150 ppm in 0.1 ppm increments

0-5 ppm in 0.01 ppm increments

0-1000 ppm in 1 ppm increments

0-1 ppm in 0.01 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

0-30% vol in 0.1% increments

CO: 0-1,500 ppm in 1 ppm increments

H<sub>2</sub>S: 0-500 ppm in 0.1 ppm increments

## 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\*\*

## CERTIFICATIONS

INGRESS PROTECTION IP66ATEX:Ex da ia IIC T4 Ga, Equipment Group and Category II 1GChina EX:Ex d ia IIC T1 Ga; Ex d ia IIC T4 Gb IR sensorChina CPC:China CPCCSA:CI I, Div 1, G A-D, T4<br/>C22.2 No. 152 applies only to %LEL thermo-catalytic readingIECEx:Ex da ia IIC T4 GaINMETRO:Ex da ia IIC T4 Ga; Ex db ia IIC T4 Gb IR sensorKC:Ex da ia IIC T4<br/>UL:CI I, Div 1, G A-D, T4; CI 1 Zone 0 AEx da ia IIC T4 Ga1

## 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

## LANGUAGE

English, French, Spanish, German

\* These specifications are based on performance averages and may vary by instrument.

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

## Maximize Team Safety (LENS Wireless)

LENS Wireless is a local team-based peer-to-peer (P2P) communications that gives your team improved hazard awareness that leads to faster emergency responses. Devices connect within seconds after being turned on – with no need for IT setup, configuration, or additional infrastructure. Simply link devices to form a connected group of monitors to create a dynamic safety net across your worksite. Devices will communicate between one another even in the harshest environments.

## SafeCore Sensor:

Each piece of critical technology for the Radius BZ1, such as sensors, software, pumps, and wireless configurations, live inside the SafeCore<sup>®</sup> module. This smart sensor is positioned face down to prevent the elements from interfering with gas readings, resulting in fewer false alarms – even in the harshest environments.

The module also slides out from the Radius base for easy docking and automated maintenance, ensuring that your sensors are always ready to go. Plus, you can even swap sensors out in the field, so the Radius base never has to leave its spot.

## **DSX Docking Station:**

Manual maintenance and record keeping are time-consuming and prone to error. The DSX Docking Station is a cloud-connected solution that gives you complete control to schedule maintenance and firmware updates – so your area monitors are always ready when you need them. Plus, the DSX Docking Station can automatically perform any calibrations needed for your SafeCore sensor.

## **RGX Gateway:**

The portable RGX<sup>™</sup> Gateway transmits location, gas readings, and real-time alerts from anywhere, including hazardous locations, giving you the power to respond faster and to improve site productivity. By using the Radius BZ1 and the RGX Gateway, you can ensure your information is always backed up and available on the cloud – making it easier to access wherever you are.

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

## RADIUS BZ1 MOST COMMON INSTRUMENT CONFIGURATIONS

PART NO.	DESCRIPTION
BZ1-K123000x0y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub>
BZ1-K123000x1y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , Wireless
BZ1-K123001x0y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , with Pump
BZ1-K123001x1y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , Wireless, with Pump
BZ1-K123500x0y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub>
BZ1-K123500x1y	Radius BZ1, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , Wireless
BZ1-K123501x0y	Radius BZ1, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , with Pump
BZ1-K123501x1y	Radius BZ1, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , Wireless, with Pump
BZ1-K1235R0x0y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , PID
BZ1-K1235R0x1y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , PID, Wireless
BZ1-K1235R1x0y	Radius BZ1, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , PID, with Pump
BZ1-K1235R1x1y	Radius BZ1, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , PID, Wireless, with Pump
SC-K123000x0y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$
SC-K123000x1y	SafeCore Module, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , Wireless
SC-K123001x0y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , with Pump
SC-K123001x1y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , Wireless, with Pump
SC-K123500x0y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$
SC-K123500x1y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , Wireless
SC-K123501x0y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , with Pump
SC-K123501x1y	SafeCore Module, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , Wireless, with Pump
SC-K1235R0x0y	SafeCore Module, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , PID
SC-K1235R0x1y	SafeCore Module, LEL (Pentane), CO, H <sub>2</sub> S, O <sub>2</sub> , SO <sub>2</sub> , PID, Wireless
SC-K1235R1x0y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , PID, with Pump
SC-K1235R1x1y	SafeCore Module, LEL (Pentane), CO, $H_2S$ , $O_2$ , $SO_2$ , PID, Wireless, with Pump

x = Agency Certification: 1 = UL/CSA, 2 = ATEX/IECEx | y = Language: 1 = EN, 2 = FR, 3 = ES, 4 = DE

### RADIUS BZ1 MAINTENANCE SOLUTIONS

PART NO.	DESCRIPTION
18109396-ABC -ABC	$\begin{array}{l} DSX^{\texttt{M}} \operatorname{Docking} \operatorname{Station} \ \text{for SafeCore}^{\circledast} \\ A - DSX \ Mode: \\ 0 = DSX \ Standalone \\ 1 = DSXi \ Cloud-connected \\ 2 = DSX-L \ Local \ Server \\ B - Number \ of \ Gas \ Inlet \ Ports: \ 3 = 3 \ Ports \\ G = 6 \ Ports \\ C - Power \ Cord \ Type: \ 1 = North \ America, 2 \\ &= EU, \\ 3 = AUS, \ 4 = UK \end{array}$
18109406	DSXi Cloud-connected Activation Certificate
18109498	Calibration Cup and Tubing Kit
17109919	Fresh air filter
17156983	Hand Tool

#### RADIUS BZ1 FILTERS AND CAPS

PART NO.	DESCRIPTION
17155932	Intrinsic Safety Power Port Dust Cap
18109444	Speaker Grill
18109445	Speaker Dust Filter (Pack of 2)
18109442	Alarm Muffler (Pack of 2)
17155934	Charging Port Dust Cap
18109455	Pump Inlet Water Barrier (Pack of 3)
18109447	Pump Bottom Dust Filter (Pack of 2)

## RADIUS BZ1 ACCESSORIES

PART NO.	DESCRIPTION
18109431-AB	Radius BZ1 Base (Without SafeCore) A = Approvals: 1 = UL/CSA, 2=ATEX/IECEx B = Language: 1 = English, 2 = French, 3 = Spanish, 4 = German
17134701	Sensor Plug
18109455	Pump Inlet Water Barrier (Pack of 3)
18109447	Pump Bottom Dust Filter (Pack of 2)
18109448	Boot
17156465	Backup Battery
17155888	Sensor Collar
18109446	Module Cover

### RADIUS BZ1 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
17155923	Charging Power Supply (Without Power Cord)
17155000	Power Cord (North America)
17155003	Power Cord (Europe)
17155001	Power Cord (Australia)
17155005	Power Cord (UK)

#### **RADIUS BZ1 REPLACEMENT SENSORS**

PART NO.	DESCRIPTION
17156650-1	Replacement Sensor, SafeCore, Carbon Monoxide (CO)
17156650-2	Replacement Sensor, SafeCore, Hydrogen Sulfide ( $H_2S$ )
17156650-3	Replacement Sensor, SafeCore, Oxygen (O <sub>2</sub> )
17156650-4	Replacement Sensor, SafeCore, Nitrogen Dioxide (NO <sub>2</sub> )
17156650-5	Replacement Sensor, SafeCore, Sulfur Dioxide (SO <sub>2</sub> )
17156650-6	Replacement Sensor, SafeCore, Ammonia (NH <sub>3</sub> )
17156650-7	Replacement Sensor, SafeCore, Chlorine (Cl <sub>2</sub> )
17156650-8	Replacement Sensor, SafeCore, Chlorine Dioxide (CLO2)
17156650-A	Replacement Sensor, SafeCore, Hydrogen Chloride (HCL)
17156650-B	Replacement Sensor, SafeCore, Hydrogen Cyanide (HCN)
17156650-C	Replacement Sensor, SafeCore, Hydrogen (H <sub>2</sub> )
17156650-G	Replacement Sensor, SafeCore, Carbon Monoxide/ Hydrogen Low (CO/ $H_2$ low)
17156650-H	Replacement Sensor, SafeCore, Carbon Monoxide (CO) High
17156650-J	Replacement Sensor, SafeCore, Carbon Monoxide/ Hydrogen Sulfide (CO/H <sub>2</sub> S)
17156650-K	Replacement Sensor, SafeCore, LEL, Pentane
17156650-L	Replacement Sensor, SafeCore, LEL, CH <sub>4</sub>
17156650-P	Replacement Sensor, SafeCore, Hydrocarbon IR (HC IR)
17156650-R	Replacement Sensor, SafeCore, PID (VOCs)
17156650-S	Replacement Sensor, SafeCore, Methane IR (CH4 IR)
17156650-9	Replacement Sensor, SafeCore, Phosphine (PH <sub>3</sub> )
17156650-D	Replacement Sensor, SafeCore, Nitric Oxide (NO)
17156650-0	Replacement Sensor, SafeCore, Carbon Dioxide IR (CO <sub>2</sub> )
18109472	DualSense Pack, SafeCore, Carbon Monoxide (CO)
18109473	DualSense Pack, SafeCore, Hydrogen Sulfide ( $H_2S$ )
18109474	DualSense Pack, SafeCore, Oxygen (O <sub>2</sub> )
18109475	DualSense Pack, SafeCore, Nitrogen Dioxide (NO <sub>2</sub> )
18109476	DualSense Pack, SafeCore, Sulfur Dioxide (SO <sub>2</sub> )
18109486	DualSense Pack, SafeCore, Carbon Monoxide/Hydrogen Low (CO/H $_2$ low)

### SINGLE GAS MONITORS



## 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<sup>\*</sup>. \*Based on iNet data

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

## SPECIFICATIONS\*

#### WARRANTY

Guaranteed for Life<sup>™</sup>. 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**

 $\label{eq:case-constraint} \begin{array}{l} \mbox{Case top} - \mbox{polycarbonate with a protective rubber overmold} \\ \mbox{Case bottom} - \mbox{conductive polycarbonate} \end{array}$ 

#### 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

#### DISPLAY

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

Ammonia (NH <sub>3</sub> ):	0 to 500 ppm
Carbon Monoxide (CO):	0 to1,000 ppi
Carbon Monoxide (CO/H <sub>2</sub> low):	0 to 1,000 pp
Hydrogen Cyanide (HCN):	0 to 30 ppm
Hydrogen Sulfide (H <sub>2</sub> S):	0.0 to 500.0
Nitrogen Dioxide (NO <sub>2</sub> ):	0.0 to 150.0
Sulfur Dioxide (SO <sub>2</sub> ):	0.0 to 150.0

0 to 500 ppm in 1 ppm increments 0 to 1,000 ppm in 1 ppm increments 0 to 1,000 ppm in 1 ppm increments 0 to 30 ppm in 0.1 ppm increments 0.0 to 500.0 ppm in 0.1 ppm increments 0.0 to 150.0 ppm in 0.1 ppm increments 0.0 to 150.0 ppm in 0.1 ppm increments

#### **DATA LOGGING** Three months at 10-second intervals

#### BATTERY

3.6 V Primary Lithium-Thionyl Chloride (Li-SOCI2); 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





### TANGO TX1 MOST COMMON INSTRUMENT CONFIGURATIONS

PART NO.	DESCRIPTION
TX1-1	Tango TX1, CO
TX1-2	Tango TX1, H <sub>2</sub> S
TX1-4	Tango TX1, NO <sub>2</sub>
TX1-5	Tango TX1, SO <sub>2</sub>
TX1-6	Tango TX1, NH <sub>3</sub>
TX1-B	Tango TX1, HCN
TX1-G	Tango TX1, CO/H <sub>2</sub> low

### TANGOTX1 MAINTENANCE SOLUTIONS

PART NO.	DESCRIPTION
18109330-ABC	DSX Docking Station for Tango TX1
-ABC	A – DSX Mode: 0 = DSX Standalone 1 = DSXi Cloud-connected 2 = DSX-L Local Server B – Number of Gas Inlet Ports: 3 = 3 Ports C – Power Cord Type: 1 = North America 2 = FIL 3 = AUS 4 = UK
18109406	DSXi Cloud-connected Activation Certificate
18105684	iGas® Reader

#### TANGOTX1 NAMEPLATES

PART NO.	DESCRIPTION
17154916	Black nameplate
17154917	Green nameplate
17154918	Yellow nameplate
17154919	Blue nameplate
17154920	White nameplate

## TANGOTX1 FILTERS

PART NO.	DESCRIPTION
18109613	Speaker dust barriers for Tango TX1, pack of 10
18109230	Water barrier kit, pack of 5

#### TANGOTX1 ACCESSORIES

PART NO.	DESCRIPTION
17154367	Replacement battery
17154484	Suspender clip
17154915-0	AlarmAmp, Black
17154915-1	AlarmAmp, Safety Orange
18109171	Soft nylon case, Black
18109239	Soft nylon case, Orange
18109238	CalCup and tubing kit

### TANGOTX1 REPLACEMENT SENSORS

PART NO.	DESCRIPTION
17155161	Replacement sensor, Carbon Monoxide, pack of two
17155164	Replacement sensor, Hydrogen Sulfide, pack of two
17155162	Replacement sensor, Nitrogen Dioxide, pack of two
17155163	Replacement sensor, Sulfur Dioxide, pack of two
17155823	Replacement sensor, Carbon Monoxide/Low Hydrogen interference (CO/H <sub>2</sub> Low), pack of two
17161338	Replacement sensor, Hydrogen Cyanide, pack of two
17161343	Replacement sensor, Ammonia, pack of two

## SINGLE GAS MONITORS



## **GASBADGE® PRO** SINGLE GAS MONITOR

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

## 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





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

Standard GasBadge Pro configurations are listed below. To order the Australian-approved version, add an "A" as a suffix to the part number.

## GASBADGE PRO MOST COMMON INSTRUMENT CONFIGURATIONS

PART NO.	DESCRIPTION
18100060-1	GasBadge Pro – Carbon Monoxide (CO)
18100060-2	GasBadge Pro – Hydrogen Sulfide (H <sub>2</sub> S)
18100060-3	GasBadge Pro – Oxygen (O <sub>2</sub> )
18100060-4	GasBadge Pro – Nitrogen Dioxide (NO <sub>2</sub> )
18100060-5	GasBadge Pro – Sulfur Dioxide (SO <sub>2</sub> )
18100060-6	GasBadge Pro – Ammonia (NH <sub>3</sub> )
18100060-7	GasBadge Pro – Chlorine (Cl <sub>2</sub> )
18100060-8	GasBadge Pro – Chlorine Dioxide (ClO <sub>2</sub> )
18100060-9	GasBadge Pro – Phosphine (PH <sub>3</sub> )
18100060-B	GasBadge Pro – Hydrogen Cyanide (HCN)
18100060-C	GasBadge Pro – Hydrogen (H <sub>2</sub> )
18100060-G	GasBadge Pro – Carbon Monoxide/Low Hydrogen Interference (CO/H <sub>2</sub> Low**)



## GASBADGE® Datalink

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



### GASBADGE PRO ACCESSORIES

PART NO.	DESCRIPTION
17121963	GasBadge Neck Lanyard with Safety Release
18106484	GasBadge Pro Nylon Carrying Case
17124504	Replacement water/dust sensor barriers (5 count)
17123019	GasBadge Pro CR2 Lithium Battery, 3V
17120528	Suspender Clip



#### **GASBADGE PRO MAINTENANCE SOLUTIONS**

PART NO.	DESCRIPTION
18109331-ABC -ABC	DSX Docking Station for GasBadge Pro A – DSX Mode:
	0 = DSX Standalone
	1 = DSXi Cloud-connected
	2 = DSX-L Local Server
	B – Number of Gas Inlet Ports:
	3 = 3 Ports
	C – Power Cord Type: 1 = North America, 2 = EU, 3 = AUS, 4 = UK
18109406	DSXi Cloud-connected Activation Certificate
18105684	iGas® Reader
18106260	GasBadge Datalink – Software included
17109919	Fresh air filter
17124033	GasBadge Pro Calibration Cup

#### GASBADGE PRO REPLACEMENT SENSORS

PART NO.	DESCRIPTION
17124983-1	Replacement sensor, Carbon Monoxide (CO)
17124983-2	Replacement sensor, Hydrogen Sulfide (H <sub>2</sub> S)
17124983-3	Replacement sensor, Oxygen (O <sub>2</sub> )
17124983-4	Replacement sensor, Nitrogen Dioxide (NO <sub>2</sub> )
17124983-5	Replacement sensor, Sulfur Dioxide (SO <sub>2</sub> )
17124983-6	Replacement sensor, Ammonia (NH <sub>3</sub> )
17124983-7	Replacement sensor, Chlorine (Cl <sub>2</sub> )
17124983-8	Replacement sensor, Chlorine Dioxide (ClO <sub>2</sub> )
17124983-9	Replacement sensor, Phosphine (PH <sub>3</sub> )
17124983-B	Replacement sensor, Hydrogen Cyanide (HCN)
17124983-C	Replacement sensor, Hydrogen
17124983-G*	Replacement sensor, Carbon Monoxide (H <sub>2</sub> Low**)

\*\* Low Hydrogen Interference



## **T40 RATTLER®** SINGLE GAS MONITOR

The T40 Rattler<sup>®</sup> is a low-cost, maintenance-free single gas monitor designed to alert workers to dangerous hydrogen sulfide or carbon monoxide concentrations.

- Compact size and light weight
- Vibrating, audio, and visual alarms
- Peak/hold feature shows highest reading during a shift
- 1,500 hour run time on one AA battery
- Two-year warranty from date of manufacture

See all features and benefits at www.indsci.com/t40

#### SPECIFICATIONS\*

#### **INSTRUMENT WARRANTY**

Two-year warranty from the date of shipment

#### CASE

High visibility, impact-resistant composite with radio frequency interference (RFI) protection

#### DIMENSIONS

86 x 58 x 19 mm (3.375 x 2.3 x .75 in)

WEIGHT

98 g (3.5 oz)

SENSORS CO, H<sub>2</sub>S - Electrochemical

#### **MEASURING RANGES**

Carbon Monoxide, 0-999 ppm in 1 ppm increments Hydrogen Sulfide, 0-500 ppm in 1 ppm increments

#### ALARMS

Adjustable low and high alarm setpoints

## **POWER SOURCE (RUN TIME)**

Replaceable "AA" alkaline battery (approx. 1,500 hours typical)

## **TEMPERATURE RANGE**

-20 °C to 50 °C (-4 °F to 122 °F) typical

## **HUMIDITY RANGE**

15% to 95% RH typical CERTIFICATIONS

#### INGRESS PROTECTION IP66/67

- -40 °C to 50 °C (-40 °F to 122 °F) ATEX: Ex ia I Ma; Ex ia IIC T4 Ga; Equipment Group/Category: I M1/II 1G
- CSA : CI I, Gr A-D, T4; Ex ia IIC T4
- IECEx: Ex ia I Ma; Ex ia IIC T4 Ga
- INMETRO: Ex ia I Ma; Ex ia IIC T4 Ga UL (C-US): CI I, Gr A-D, T4; CI II, Gr E-G; CI I, Zone O, AEx ia IIC T4

#### -20 °C to 50 °C (-4 °F to 122 °F)

	China Ex: CMA: EAC: KC:	Ex ia IIC T4 Ga Ex ia I Ma; H <sub>2</sub> S, CO PO Ex ia I X; O Ex iX IIC T4 X Ex ia IIC T4
	PART NO.	DESCRIPTION
	18105247	T40 Rattler – Hydrogen Sulfide (H <sub>2</sub> S)
	18105254	T40 Rattler – Carbon Monoxide (CO)
	18105874	T40 Nylon Carrying Case

All Rattler T40 Monitors Include: Battery (installed), additional battery, and maintenance tool.





## **DSX™** DOCKING STATION

The DSX<sup>™</sup> 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 Local Server, DSXi Cloud-connected, or DSX Standalone based on your data access requirements. All DSX Docking Stations offer automatic charging, bump testing, and calibration.

- 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

## Where Do You Want Your Data?

Choose the out-of-the-box solution that best fits your needs.



detector maintenance and record keeping station that requires no PC or network connection. Cloud-based record storage, fleet management, and automated maintenance and notification solution.

Server-based record storage, fleet management, and automated maintenance and custom data reporting.

PHYSICAL SPECIFICATIONS
WARRANTY Two-year warranty – DSX (Standalone) and DSX-L (Local Server) Guaranteed For Life <sup>™</sup> Program <sup>**</sup> – DSXi (Cloud-connected)
INSTRUMENTS SUPPORTED GasBadge Pro, MX6 iBrid, Tango TX1, Ventis MX4, Ventis Pro5, SafeCore
<b>DIMENSIONS</b> GasBadge Pro, Tango TX1: 22.7 x 16.9 x 27.3 cm (8.92 x 6.65 x 10.75 in) Ventis MX4, Ventis Pro5: 24.9 x 16.9 x 27.3 cm (9.83 x 6.65 x 10.75 in) MX6 iBrid: 25.3 x 16.9 x 27.3 cm (9.96 x 6.65 x 10.75 in) SafeCore: 27.3 x 16.9 x 29.2 cm (10.75 x 6.65 x 11.5 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)
<b>COMMUNICATION</b> 10 / 100 Ethernet support, RJ-45 Category 5 Connection
DISPLAY 128 x 64 Dot Matrix LCD – Multilingual modes English, Spanish, French, German and Portuguese***
PERFORMANCE SPECIFICATIONS
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

## DSX Comparison Chart



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

PART NO.	DESCRIPTION
INSTRUMENT C	CONFIGURATIONS
18109327- ABC	Ventis MX4, Ventis Pro5
18109329- ABC	MX6 iBrid
18109330- ABC	Tango TX1
18109331- ABC	GasBadge Pro
18109396- ABC	SafeCore Module
-ABC	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 (for Ventis, MX6 iBrid, & SafeCore only)
	C – Power Cord Type: 1 = North America, 2 = EU,
	3 = AUS, 4 = UK
KITS*	
18109400	DSX Standalone Kit: Tango TX1 (H <sub>2</sub> S)
18109401	USX Standalone Kit: Ventis MX4, Ventis Pro5 (LEL, CO, H <sub>2</sub> S, O <sub>2</sub> )
18109404	DSXi Cloud-connected Kit: Tango TX1 (H <sub>2</sub> S)
18109405	DSXi Cloud-connected Kit: Ventis MX4, Ventis Pro5 (LEL, CO, $H_2S$ , $O_2$ )
ACCESSORIE	S
18109406	DSX to DSXi Activation Certificate
18105684	iGas® Reader
18105924	5-Port Gas Regulator Manifold Clamp
18109203	iNet Mobile Carrying Case – Carrying case designed to accommodate a DSX Docking Station, two 116 liter cylinders, regulator, and other accessories, allowing you to take your DSX on the go.
17113887	Ethernet Cable, 5 ft (Cat5E network cable)
17110005	Ethernet Cable, 10 ft (Cat5E network cable)
1/113895	
17113895	Ethernet Cable, 25 ft (Cat5E network cable)
17113895 17113903 17113945	Ethernet Cable, 25 ft (Cat5E network cable) 5-Port Ethernet Hub
17113895 17113903 17113945 17109919	Ethernet Cable, 25 ft (Cat5E network cable) 5-Port Ethernet Hub Fresh air filter

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.





RGX® GATEWAY

The portable RGX<sup>®</sup> 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

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

#### **COMMON INSTRUMENT CONFIGURATIONS**

PART NO.	DESCRIPTION
18109509-101	RGX Gateway, No SIM, wi-fi/Ethernet compatible, LENS Repeater Mode, cULus, North American Power Cord
18109509-211	RGX Gateway, USA, LTE (Verizon compatible), cULus, North American Power Cord
18109509-221	RGX Gateway, USA, LTE (AT&T compatible), cULus, North American Power Cord
18109509-251	RGX Gateway, Canada, LTE, (Telus/Bell/Rogers compatible), cULus, North American Power Cord
18109509-362	RGX Gateway, EMEA, LTE (Tele2 compatible), ATEX/IECEx, EU Power Cord
18109509-372	RGX Gateway, Asia Pacific, LTE (Telefonica compatible), ATEX/IECEx, EU 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-FI

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

\* See www.indsci.com/wireless-certifications for country-specific wireless approvals and certifications \*\* Requires leather case when not permanently installed



## Monitor Lone Workers in Real Time

Get real-time location, status, and gas alarm data from mobile workers in remote locations using the vehicle-installed TGX<sup>™</sup> Gateway.

ETHERNET USB

- Real-time visibility into the location and wellbeing of mobile workers in remote areas without cellular coverage.
- Email, text, and on-screen alerts when alarms occur, ensuring the right messages get to the right people at the right time
- Dual cellular and satellite connectivity ensures communication coverage at all times
- Monitor up to 24 instruments at once
- Vehicle-installed device eliminates charging and ensures a reliable power source

#### **TGX GATEWAY**

PART NO.	DESCRIPTION
TGX-211	TGX Gateway Dual Cellular/Satellite, US
TGX-221	TGX Gateway Dual Cellular/Satellite, US & Canada**
TGX-231	TGX Gateway Dual Cellular/Satellite, Canada

\*\* Canadian SIM with US roaming capabilities

#### **REPLACEMENT PARTS**

PART NO.	DESCRIPTION
17159351	TGX Satellite Antenna
17159349	TGX Primary Antenna (LENS/Cellular/GPS)
17159347	TGX Power Cable

### SPECIFICATIONS\*

WARRANTY 2 year

**DIMENSIONS** 102 x 102 x 76 mm

**WEIGHT** 280 g

**ENVIRONMENTAL** Operating temperature: -40 °C to 80 °C (-40 °F to 176 °F)

## COMMUNICATION

CELLULAR Cellular (2G): Quad band 850/900/1800/1900MHz Cellular (3G/HSPA): Pentaband 800/850/900/1900/2100MHz Antenna: external

SATELLITE Iridium Antenna: external

#### LOCATION

GPS (NMEA protocol) Antenna: external Accuracy: ~5 m (16 ft) outdoors

## POWER REQUIREMENT

Input: 9-30VDC, 12VDC @ 300mA

## REGULATORY

FCC, IC & PTCRB compliant RoHS compliant

## COMPATIBILITY

Works with Ventis Pro5 Multi-Gas Monitors and Radius BZ1 Area Monitors

## LENS

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

#### RANGE

TGX Gateway to RGX® Gateway 300 m (~1,000 ft) line of sight TGX Gateway to Radius® BZ1 300 m (~1,000 ft) line of sight TGX Gateway to Ventis® Pro5 100 m (~300 ft) line of sight

\* These specifications are based on performance averages and may vary by instrument.

Learn more about the TGX Gateway at www.indsci.com/tgx



## **IASSIGN®** BEACON AND TAGS

iAssign<sup>®</sup> 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 Tag Specifications		RESIGN RESIGN	SSSIG The insciso	C C C C C C C C C C C C C C C C C C C
Tag Type	Standard	Waterproof	All Weather	Keychain Tag
	Tag	Tag	Tag	
Part Number (Pack of 10)	18109417	18109418	18109419	18109420
Thickness	0.7 mm	1.5 mm	3 mm	4 mm
Adhesive Back	Yes	Yes	No	No

#### **iASSIGN TAG SPECIFICATIONS**

TECHNOLOGY

#### Near Field Communication (NFC)

PROGRAMMING METHOD

iAssign app available in Google Play store and iOS App store

### APPLICATION

iAssign tags may be used to track workers and locations

iASSIGN BEACON SPECIFICATIONS*
<b>PART NUMBER</b> 18109491
RUN TIME Four years
WARRANTY One year
INGRESS PROTECTION IP65
<b>TEMPERATURE RANGE</b> -40 °C to 50 °C
HUMIDITY RANGE 0% to 100% RH
<b>DIMENSIONS</b> 125 x 85 x 43mm (5 x 3.3 x 1.68 in)
<b>WEIGHT</b> 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 and iOS App store
ACCESSORIES Instruction card, drywall anchors, screws
APPLICATION iAssign beacons may be used to track locations only
CERTIFICATIONSATEX:II 1 G, Ex ia IIC T4 Gac UL us:CI I, Div 1 Gr A, B, C, D, T4; CI II, Div 1, Gr E, F, G; CI I Zone 0, AEx ia IIC T4; Ex ia IIC T4IECEx:Ex ia IIC T4 GaWireless: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 (Taiyo Yuden)

\* These specifications are based on performance averages and may vary by instrument.

# See all features and benefits at www.indsci.com/iassign





## **SOLAR** POWER SUPPLY

Continuously power Radius<sup>®</sup> BZ1 Area Monitors and RGX<sup>®</sup> Gateways in hazardous or remote locations with the Solar Power Supply (SPS). The Solar Power Supply helps you minimize the cost and risk of charging and rotating equipment in dangerous, remote locations thanks to its continuous power supply, portability, and durability.

- Eliminate the need for charging or rotating equipment by continuously powering devices with the SPS
- Decrease the amount of time and labor needed to deploy and relocate solar-powered devices with SPS's easy-tomove pieces
- Rugged, durable, and UL/CSA Class 1 Div 2 certified to ensure operational readiness in the harshest environments

## **CONFIGURATION OPTIONS**

The SPS will power one Radius BZ1 Area Monitor or one RGX Gateway, or any one of the following combinations:

- One Radius BZ1 and one RGX Gateway simultaneously
- Two Radius BZ1 area monitors simultaneously
- Two RGX Gateway units simultaneously

The SPS insert assembly supports the mounting of one compatible device of each type. When two compatible devices of the same type are being powered, one can be mounted on the SPS and one can be placed elsewhere, allowing the area monitor to be in the best place for gas detection and Solar Power Supply to be placed in the most optimal location for sunlight.

## SPECIFICATIONS\*

## WARRANTY

The Solar Power Supply is warranted to be free from defects in material and workmanship for a period of two years after purchase. Radius BZ1 and RGX Gateway paired with the SPS fall under their designated warranties.

## **KEYPAD**

One (power on and off)

## INGRESS PROTECTION

NEMA 4X (enclosure) for outdoor usage

## MATERIALS

Aluminum stand and bracket assembly with stainless steel enclosure

## **POWER CABLES**

Input - Cable from solar panel to enclosure

Outputs - Intrinsically safe (IS) cables suppling DC power from enclosure to compatible devices

## DIMENSIONS

Approximately 0.84 x 1.83 x 1.22 m (33 x 72 x 48 in) when packaged, prior to assembly

## WEIGHT

63.27 kg (139.48 lb)

Subassemblies (solar panel assembly, stand, battery, insert assembly, etc.) weigh less than 27.21 kg (60 lb) for ease of handling

## **TEMPERATURE RANGE**

Ambient: -20 °C to +45 °C (-4 °F to +113 °F) Storage: -40 °C to +75 °C (-40 °F to +167 °F)

## **HUMIDITY RANGE**

20-90% relative humidity non-condensing

## **OPERATING CONDITIONS**

Meets requirements for Electromagnetic Compatibility (EMC) for Class A equipment and meets EMC requirements while connected as a system to a Radius BZ1 area monitor.

## **DISPLAY/READOUT**

None – A compatible product will indicate that it is receiving power from the SPS.

## **OUTPUT PARAMETERS**

Uo	14.7 VDC
lo	300 mA
Cob	0.58 pF
LOb	0.32 mH

## DURABILITY

Can withstand exposure to fungus and salt fog (Up to 96 hours of salt fog)

Unanchored, the SPS can withstand up to 60 mph side or headwinds

## CERTIFICATIONS

CSA Class 1 Div 2 certification

## **POWER SOURCE/ RUN TIME**

Indefinitely if its battery remains charged

Recommend daily minimum of 4 hours of direct sunlight to maintain the battery's level of charge

Calibration gas ensures that your gas detector is functioning properly and responding to gas exposures as expected. Gas detection equipment should be calibrated monthly to ensure the sensors in your gas detector are functioning properly. All Industrial Scientific calibration cylinders are manufactured to the highest quality standards and include NIST-traceable blend techniques, analytical leak testing of every cylinder, certified component concentrations, and clearly marked lot numbers and expiration dates. Replacement cylinders are available in a variety of sizes and concentrations for all gases detected by Industrial Scientific instruments.



#### DEMAND FLOW REGULATORS

PART NO.	DESCRIPTION	Vol	0.5LPM Regulator	Demand Flow	with iGas Pressure Switch
18105825	CYL, 200 ppm CO, 75 ppm H <sub>2</sub> S, 15% O <sub>2</sub> , 25% LEL Methane (For bump testing only)	11L	18100883	18102509	18105841
18109173	CYL, 18% 0 <sub>2</sub> , 25% LEL Pentane	103L	18100883	18102509	18105841
18109174	CYL, 100 ppm CO, 18% O <sub>2</sub> , 2.5% Methane	103L	18100883	18102509	18105841
18109187	CYL, 100 ppm CO, 18% O <sub>2</sub> , 2.5% Methane	552L	18102260	18103549	18105833
18109199	CYL, 100 ppm CO, 18% O <sub>2</sub> , 2.5% Methane	4,000L	n/a	18103556	18105858
18109165	CYL, 100 ppm CO, 18% O <sub>2</sub> , 25% LEL Pentane	103L	18100883	18102509	18105841
18109161	CYL, 100 ppm CO, 18% O <sub>2</sub> , 25% LEL Pentane	552L	18102260	18103549	18105833
18109156	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 2.5% Methane	58L	18100883	18102509	18105841
18109158	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 2.5% Methane	116L	18100883	18102509	18105841
18109160	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 2.5% Methane	650L	18103374	18103556	18105858
18109198	CYL, 100 ppm CO, 25 ppm $H_2S$ , 18% $O_2$ , 50% LEL Methane	4,000L	n/a	18103556	18105858
18109155	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 25% LEL Pentane	58L	18100883	18102509	18105841
18109157	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 25% LEL Pentane	116L	18100883	18102509	18105841
18109159	CYL, 100 ppm CO, 25 ppm $H_2S$ , 18% $O_2$ , 25% LEL Pentane	650L	18103374	18103556	18105858
18109194	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 25% LEL Pentane	4,000L	n/a	18103556	18105858
18109176	CYL, 100 ppm CO, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	103L	18100883	18102509	18105841
18109186	CYL, 100 ppm CO, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	552L	18102260	18103549	18105833
18109269	CYL, 250 ppm CO, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 50% LEL Methane	103L	18100883	18102509	18105841
18109251	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 2.0% (40% LEL) Methane	116L	18100883	18102509	18105841
18109363	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 2.0% (40% LEL) Methane	650L	18103374	18103556	18105858
18109250	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	116L	18100883	18102509	18105841
18109362	CYL, 100 ppm CO, 25 ppm H <sub>2</sub> S, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	650L	18103374	18103556	18105858
18109236	CYL, 100 ppm CO, 5 ppm NO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	116L	18100883	18102509	18105841
18109235	CYL, 100 ppm CO, 5 ppm NO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	650L	n/a	n/a	18106740
18109184	CYL, 100 ppm CO, 5 ppm NO <sub>2</sub> , 18% O <sub>2</sub> , 2.5% Methane	58L	18100883	18102509	18105841
18109324	CYL, 5 ppm SO <sub>2</sub> , 18% O <sub>2</sub> , 2.5% Methane	116L	18100883	18102509	18105841



## Automatic Calibration Gas Replenishment Program

By joining the Auto Replenishment Program, you ensure that you and your team are never without calibration gas and therefore never without a properly calibrated instrument. For those who register for the program, a new cylinder of gas will automatically be sent when iNet Control detects a low gas cylinder.

NOTE: Calibration gas cylinder expiration times vary due to gas type. Please contact Industrial Scientific for detailed information.

				DEMAN REGUL	ID FLOW ATORS
PART NO.	DESCRIPTION	Vol	0.5LPM Regulator	Demand Flow	with iGas Pressure Switch
18102151	CYL, 25 ppm Ammonia (NH₃)	58L	18100883	18102509	18105841
18109081	CYL, 25ppm Ammonia (NH <sub>3</sub> )	116L	18100883	18102509	18105841
18106658	CYL, 25 ppm Ammonia (NH <sub>3</sub> )	650L	n/a	n/a	18106740
78103868	CYL, 50 ppm Ammonia (NH <sub>3</sub> )	58L	18100883	18102509	18105841
18109106	CYL, 50 ppm Ammonia (NH <sub>3</sub> )	116L	18100883	18102509	18105841
18109392	CYL, 50 ppm Ammonia (NH <sub>3</sub> )	650L	n/a	n/a	18106740
18102913	$CYL, 2.5\%$ Carbon Dioxide ( $CO_2$ )	1031	18100883	18102509	18105841
18104208	CYL, 5.0% Carbon Dioxide (CO <sub>2</sub> )	103L	18100883	18102509	18105841
18102163	CYL, 100 ppm Carbon Monoxide (CO)	103L	18100883	18102509	18105841
18103101	CYL, 100 ppm Carbon Monoxide (CO)	552L	18102260	18103549	18105833
18101758	CYL, 10 ppm Chlorine (Cl <sub>2</sub> )	581	18100883	18102509	18105841
18109082	$CYL = 10 \text{ ppm}$ Chlorine ( $CI_2$ )	116	18100883	18102509	18105841
18106955	CYL = 10  ppm Chlorine (Cl2)	650	18103374	18103556	18105858
18102996	CYL 500  ppm Hydrogen (H2)	103	18100883	18102509	18105841
18102154	$CYL = 10 \text{ ppm} \text{Hydrogen (H}_2)$	58	18100883	18102509	18105841
18109088	CYL 10 ppm Hydrogen Chloride (HCI)	116	18100883	18102509	18105841
18106963	CYL 10 ppm Hydrogen Chloride (HCI)	6501	18103374	18103556	18105858
18100859	CYL 25 ppm Hydrogen Sulfide (H <sub>2</sub> S)	58	18100883	18102509	18105841
18109078	$CYL_25$ ppm Hydrogen Sulfide (H <sub>2</sub> S)	116	18100883	18102509	18105841
18106633	$CYL_25$ ppm Hydrogen Sulfide (H <sub>2</sub> S)	650	18103374	18103556	18105858
18109132	$CVL_25$ ppm Hydrogen Sulfide (H <sub>2</sub> S)	4 0001	n/a	18103556	18105858
18102152	CVL = 10  ppm Hydrogen Cyanide (HCN)	5.81	18100883	18102509	181058/1
18109085	CVL 10 ppm Hydrogen Cyanide (HCN)	116	18100883	18102509	181058/1
18107830	CVL 10 ppm Hydrogen Cyanide (HCN)	650	n/a	n/a	18106740
10107033		102	10100002	10102500	101050/1
10102333	CVL 100 ppm loobutylone	10JL	10100003	10102540	10105041
10107373	CVL 2.5% Methano (CH.)	102L	10102200	10103545	10105033
10101370	CYL Q0% Mothana (CH )	241	10100003	10102509	10105041
10104770	CVL 25 ppm Nitric Ovide (NO)	591	10100003	10102500	10105041
10102133	CVL 25 ppm Nitric Oxide (NO)	116	10100003	10102500	10105041
10103031	CVL 25 ppm Nitric Oxide (NO)	650L	10100803	n/2	10105041
10107722	CVL E nom Nitrogen Dievide (NO.)	EQL	10100000	10102500	10100740
10102219	CYL 5 ppm Nitrogen Dioxide (NO <sub>2</sub> )	JOL 110	10100003	10102509	10105041
10105007	CYL 5 ppm Nitrogen Dioxide (NO <sub>2</sub> )	650L	10100003	10102509	10105041
10103002	CVL 25 ppm Nitrogon Dioxide (NO <sub>2</sub> )	50L	10100002	10102500	10100740
10101477	$CYL_2S ppm Nitrogen Dioxide (NO_2)$	JOL 1161	10100000	10102509	10105041
10109004	CYL 25 ppm Nitrogen Dioxide (NO <sub>2</sub> )	CEOL	10100000	10102309	10103041
10104050	CYL, 25 ppm Nitrogen Dioxide (NO <sub>2</sub> )	50UL	II/d	10102500	10105041
10102222	CYL E ppm Priospiline (PH3)	50L	10100803	10102509	10105041
18102222	CTL, 5 ppm Sulfur Dioxide (SO <sub>2</sub> )	38L	10100803	10102509	10105041
10100100	CYL, 5  ppm Sulfur Dioxide (SO2)	110L	18100883	18102509	18105841
10101020	$OYL, 5 \text{ ppm Sulfur Dioxide } (SO_2)$	650L	n/a	n/a	18106740
18101220		58L	18100883	18102509	18105841
10105017	CVL 10 ppm Sulfur Dioxide (SO )	116L	18100883	18102509	10105841
10100414	$(VL = 10 \text{ ppm} \text{ Sulfur Dioxide } (SO_2)$	05UL	n/a	n/a	10100740
10101504	CYL Zero Crede Air (20.0% Owner)	4,000L	II/a	10102500	10105041
10100000	CYL Zero Grade Air (20.9% Oxygen)	IU3L	10100883	18102509	10105841
18102320	UTL, Zero Grade Alr (20.9% UXygen)	552L	18102260	18103549	18105833
18109247	UYL, Zero Grade Air (20.9% Uxygen)	4,000L	n/a	18103549	18105833

NOTE: Calibration gas cylinder expiration times vary due to gas type. Please contact Industrial Scientific for detailed information.

Industrial Scientific Calibration Kits come equipped with everything you need to keep your gas monitoring devices operating accurately and reliably. Kits contain certified NIST-traceable (National Institute of Standards & Technology) span gases for safe, reliable instrument calibration. Complete kits are available for all installed sensors and include:

- Convenient carrying case
- Non-refillable cylinders
- Flow regulator

# See all options at www.indsci.com/cal-gas



PART NO.	DESCRIPTION	Vol
18102269	KIT, 100 ppm CO, 18% O <sub>2</sub> , 25% LEL Pentane	103L
18102270	KIT, 100 ppm CO, 19% O <sub>2</sub> , 2.5% Methane	103L
18109137	KIT, 100 ppm CO, 25 ppm $H_2S$ , 18% $O_2$ , 25% LEL Pentane	116L
18109139	KIT, 100 ppm CO, 25 ppm H_2S, 18% O_2, 25% LEL Pentane with Demand Flow Regulator	116L
18109138	KIT, 100 ppm CO, 25 ppm H <sub>2</sub> S, 18% O <sub>2</sub> , 2.5% Methane	116L
18103317	KIT, 100 ppm CO, 2.5% CO <sub>2</sub> , 18% O <sub>2</sub> , 25% LEL Pentane	103L
18102147	KIT, 25 ppm Ammonia (NH <sub>3</sub> )	58L
18103275	KIT, 5.0% Carbon Dioxide (CO <sub>2</sub> )	34L
18102162	KIT, 100 ppm Carbon Monoxide (CO)	103L
18101741	KIT, 10 ppm Chlorine (Cl <sub>2</sub> )	58L
18102148	KIT, 10 ppm Hydrogen Chloride (HCI)	58L
18102149	KIT, 10 ppm Hydrogen Cyanide (HCN)	58L
18109135	KIT, 25 ppm Hydrogen Sulfide ( $H_2S$ )	116L
18101303	KIT, 2.5% Methane	34L
18102491	KIT, 99% Methane	34L
18102150	KIT, 25 ppm Nitric Oxide (NO)	58L
18102238	KIT, 5 ppm Nitrogen Dioxide (NO <sub>2</sub> )	58L
18101469	KIT, 25 ppm Nitrogen Dioxide (NO <sub>2</sub> )	58L
18101261	KIT, 25% LEL Pentane	34L
18102239	KIT, 5 ppm Sulfur Dioxide (SO <sub>2</sub> )	58L
18101212	KIT, 10 ppm Sulfur Dioxide (SO <sub>2</sub> )	58L



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

# See all features and benefits at www.indsci.com/bump-n-go

#### **SPECIFICATIONS**

**CYLINDER SHELF LIFE** 1 year

**CYLINDER HEIGHT** 97.5 mm (3.84 in)

### **CYLINDER DIAMETER**

48 mm (1.90 in) **CYLINDER WEIGHT** .204 kgs (0.45 lbs)

#### 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 <sub>2</sub> S, 15% O <sub>7</sub> , 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 <sub>2</sub> , 25% LEL (Methane)
18109598	Bump-N-Go Cylinder, 6-pack, 100 ppm CO, 75 ppm $H_2S$ , 15% $O_2$ , 50% LEL (Methane)
REGULATOR	

18109565 Pushb

Pushbutton regulator for use with Bump-N-Go Cylinders



Regulators provide the proper flow rate for calibrating your Industrial Scientific gas monitors. Always use the appropriate regulator for the application as recommended in the instruction manual.







18100933 - 34 L Regulator (1/2 L/min flow) 18102509 - 58/103 L Demand Flow Regulator 18103564 - 34 L Demand Flow Regulator

- 18102260 552 L Regulator (1/2 L/min flow)
- 18100883 58/103 L Regulator (1/2 L/min flow) 18102155 58/103 L Ammonia Regulator
- 18103580 58/103 L Bump Test Regulator
- (h)
- 18105841 58/103/34L Demand Flow Regulator with iGas Pressure Switch 18105833 552L Demand Flow Regulator, 590 CGA with iGas Pressure Switch 18105858 650L Demand Flow Regulator, 330 CGA with iGas Pressure Switch 18106740 Demand Flow Regulator, 660 CGA with iGas Pressure Switch (i) (j)
- (k)

MX6 iBrid DSX Docking Station shown with a Demand Flow Regulator (18105841) and cylinder connected to an iGas® Reader (18105684).

(I) 18105924 - 5-port Clamp-on Gas Manifold



#### **DEMAND FLOW REGULATORS**

PART NO.	DESCRIPTION
18105841	(h) 58/103/34L Demand Flow Regulator with iGas 150 PSI Pressure Switch
18109244	(h) 58/103/34L Demand Flow Regulator with iGas 250 PSI Pressure Switch
18105866	34L Demand Flow Regulator, 600 CGA with iGas 150 PSI Pressure Switch
18109243	34L Demand Flow Regulator, 600 CGA with iGas 250 PSI Pressure Switch
18105833	(i) 552L Demand Flow Regulator, 590 CGA with iGas 200 PSI Pressure Switch
18109241	(i) 552L Demand Flow Regulator, 590 CGA with iGas 500 PSI Pressure Switch
18105858	(j) 650L Demand Flow Regulator, 330 CGA with iGas 200 PSI Pressure Switch
18109242	(j) 650L Demand Flow Regulator, 330 CGA with iGas 500 PSI Pressure Switch
18106740	(k) Demand Flow Regulator, 660 CGA with iGas 200 PSI Pressure Switch
18109246	(k) Demand Flow Regulator, 660 CGA with iGas 500 PSI Pressure Switch
18106757	Demand Flow Regulator, 705 CGA with iGas Pressure Switch
18101766	58/103L Regulator (1 L/min flow)

#### REGULATORS

PART NO.	DESCRIPTION
18100933	(a) 34L Regulator (1/2L/min flow)
18102509	(b) 58/103L Demand Flow Regulator (and 34L Aluminum Cylinders)
18103564	(c) 34L Demand Flow Regulator, CGA 600
18103549	552L Demand Flow Regulator, CGA 590
18103556	650L Demand Flow Regulator, CGA 330
18104158	Demand Flow Regulator, CGA 660
18106708	Demand Flow Regulator, CGA 705
18102260	(d) 552L Regulator (1/2 L/min flow), CGA 590
18100883	(e) 58/103L Regulator (and 34L Aluminum Cylinders) (1/2 L/min flow)
18102155	(f) 58/103L Ammonia Regulator (1 L/min flow)
18103580	(g) 58/103L Bump Test Regulator with Trigger
18103374	650L Regulator (1/2L/min flow), CGA 330
18104356	Regulator with Bump Test Trigger, CGA 590
18105924	5-Port Clamp-on Gas Manifold

Remote sampling allows employees to assess air samples from an unknown and potentially toxic or combustible atmosphere using a pumped gas monitor before they enter the area. Adequate air flow is critical for proper remote sampling. All filters should be replaced when dirt or water inhibits air flow. Quick disconnect fittings allow easy connection to secure tubing to sampling pumps.



## Additional Remote

- Sampling Equipment: (a) Inline High Capacity Water Stop
- (b) Dust Filter/WaterStop for
- Docking Station Fresh Air Inlet (c) Inline Dust Filter for iSP/
- SP402/SP202/SP100 Pumps
- (d) Dilution Tube
- (e) Quick Disconnect Fitting, Female
- (f) Replacement Filters (Package of 5)
- (g) Internal Dust Filter/WaterStop for MX6/ATX Series
- (h) Quick Disconnect Fitting, Male, Threaded
- (i) Luer Fitting, Male, 1/8 in or 3/16 in Barb
- (j) Quick Disconnect Fitting, Male, 1/8 in Barb
- (k) Quick Disconnect Fitting, Male, 3/16 in Barb



- (I) 17037961 Carrying Case for 2 Cylinders (58 L)
- (m) 17124348 Wall/Desk Mount Cylinder Holder for use with 34, 58, 116, and 552 liter cylinders (cylinder not included)

#### ADDITIONAL REMOTE SAMPLING EQUIPMENT

PART NO.	DESCRIPTION
18102277	(a) Inline High Capacity Water Stop
17057803	Replacement Gortex Filter Insert for 18102277
17027152	(b) White Disc Filter
18109558	(b) White Disc Filter (pack of 10)
17050908	(c) Inline Dust Filter 10 micron, with adaptors for MX6 iBrid Ventis, VSP pumps
17041740	(d) Dilution Tube (for use with Sampling Pumps)
17050688	(e) Quick Disconnect Fitting, Female
17024597	(f) Replacement Filter for 6' Extendible Probe
18109559	(f) Replacement Filters for 6' Extendible Probe (Pack of 3)
17058157	(g) Internal Dust Filter/WaterStop
17051611	(h) Quick Disconnect Fitting, Male, Threaded
17048273	(i) Luer Fitting, Male, 3.175 mm (1/8 in) Barb
17050698	(i) Luer Fitting Male, 4.7625 mm (3/16 in) Barb
17050689	(j) Quick Disconnect Fitting, Male, 3.175 mm (1/8 in) Barb
17050775	(k) Quick Disconnect Fitting, Male, 4.7625 mm (3/16 in) Barb
17051319	Dust Filter/WaterStop for Docking Station Fresh Air Inlet
17051701	Replacement Probe Fitting for 18101386
17136540	SP6 Filter Cap (used with 18105155-X)
17152395	Internal Dust Filter/Water Stop for Ventis Slide-on Pump
17068099	3/16" To 1/8" Reducer
17129909	MX6 iBrid/Ventis Filter cap

#### PROBE TUBING KITS – for use with 18101386 probe

18108043	Probe Tubing Kit for MX6 iBrid/Ventis – Urethane (Not for use with $Cl_2$ , $ClO_2$ , HCI, or PID sensors)
18108093	Probe Tubing Kit for MX6 iBrid/Ventis – Teflon lined (For use with all sensors)

## UNIVERSAL URETHANE SAMPLE TUBING KIT WITH DUST FILTER/WATER STOP

PART NO.	LENGTH	PART NO.	LENGTH
18109207-10	3 m/10 ft	18109207-60	18.3 m/60 ft
18109207-20	6.1 m/20 ft	18109207-70	21.3 m/70 ft
18109207-30	9.1 m/30 ft	18109207-80	24.4 m/80 ft
18109207-40	12.2 m/40 ft	18109207-90	27.4 m/90 ft
18109207-50	15.2 m/50 ft	18109207-100	30.5 m/100 ft

NOTE: Not for use with Cl<sub>2</sub>, ClO<sub>2</sub>, HCl, or PID Sensors

#### UNIVERSAL TEFLON LINED SAMPLE TUBING KIT WITH DUST FILTER/WATER STOP

PART NO.	LENGTH	PART NO.	LENGTH
18109206-10	3 m / 10 ft	18109206-60	18.3 m / 60 ft
18109206-20	6.1 m / 20 ft	18109206-70	21.3 m / 70 ft
18109206-30	9.1 m / 30 ft	18109206-80	24.4 m / 80 ft
18109206-40	12.2 m / 40 ft	18109206-90	27.4 m / 90 ft
18109206-50	15.2 m / 50 ft	18109206-100	30.5 m / 100 ft

NOTE: For use with all sensors

#### **MISCELLANEOUS CALIBRATION EQUIPMENT**

PART NO.	DESCRIPTION
18105684	iGas® Reader
17041807	Calibration Log, (tablet of 50 sheets)
17045873	Calibration Label
17037961	(I) Carrying Case for 2 Cylinders (58/103 L)
18100149	Carrying Case for 2 Cylinders (34 L) with 0.5 LPM Regulator
17154096	Carry Case for 2 Cylinder (116L)
17124348	(m) Wall/Desk Mount Cylinder Holder
17113275	Cylinder Recycling Tool (58L, 103L steel)
17113283	Cylinder Recycling Tool (34L)

### SAMPLING PROBES

PART NO.	DESCRIPTION
18101428	(a) 4 ft Polycarbonate Probe with Tubing
18101386	(b) 6 ft Extendible Stainless Steel Probe
17024597	Replacement Filter Single
17024191	Replacement Filter Pack of 5
18102309	(c) 1.5 ft Polycarbonate Probe with Filter
18102246	(d) 3 ft Extendible Probe with Teflon Tubing Insert
18102306	3 ft Stainless Steel Bar Hole Probe with Filter
17058157	Replacement Filter Single
18109560	Replacement Filter Pack of 5
18102276	5 ft Stainless Steel Flue Gas Probe with Filter (to 1,500 °F)
17058157	Replacement Filter Single
18109560	Replacement Filter Pack of 5
18103309	Aluminum Coiled Probe (800-900 °F)
18104299	3 ft Polycarbonate Probe with High Capacity Filter
18102277	Inline High Capacity Water Stop, 1/8 Hose Barb
18109563	Inline High Capacity Water Stop, Quick Connect
17057803	Inline High Capacity Water Stop filter

#### **MX6 iBRID INLET PROBE ADAPTERS**

PART NO.	DESCRIPTION
18108850-1	Filter Cap, 1/8 Hose Barb Fitting
18108850-2	Filter Cap, Quick Connect Fitting
18108850-3	Filter Cap, 8 in Teflon Probe
18108850-4	Filter Cap, 10 in Stainless Steel Probe
18108850-5	Filter Cap, 18 in Polycarbonate Probe

#### **MX6 iBRID BENZENE TUBE**

PART NO.	DESCRIPTION
18109605	Benzene Tube Holder, Quick Connect, MX6
18109602	Benzene Tube Holder, Threaded Connect, MX6
17158960	Benzene Pre-Filter Tubes (Box of 10)
17185961	Benzene Pre-Filter Tube Tip Breaker
18109605	Benzene Tube Holder, Quick Connect

18109605 Benzene Tube Holder, Quick Connect





(d) 18102246 3 ft Extendible Probe with Teflon Tubing Insert Shown: not extended



18109602 Benzene Tube Holder, Thread Connected





17158960 Benzene Pre-Filter Tubes (Box of 10)



17185961 Benzene Pre-Filter Tube Tip Breaker

## **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 www.indsci.com/gas-detectors/ certified-pre-owned/ for more information.

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

iNet<sup>®</sup> Exchange is a subscription-based service that covers repair and replacement of gas detectors and replenishment of calibration gas. 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 spare parts inventory.

### **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





## 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
/entis MX4	Ventis Pro5
MX6 iBrid	Radius BZ1
Net 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

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

SENSOR

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

\*new sensor () aged sensor or saturated filter No data available Table is current as of July 24, 2019

## **LEL Correlation Factors**

### **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.

## Certifications

AGENCY	MULTI-GAS MONITORS				SINGLE GAS MONITORS			
	MX6 iBrid	Ventis Pro5	Ventis MX4	Tango TX2	Radius BZ1	Tango TX1	GasBadge Pro	T40 Rattler
ANZEx	•	•	•				•	٠
ATEX	•	•	•	•	•	•	•	•
China CMC			٠					٠
China CPC	•	•	•		•	•		
China Ex	•	•	•		•	•	•	٠
China KA			•					
China MA			•			•	•	•
CSA	•	•	•		•	•	•	•
EAC/GOST	•	•	•			•		
IECEx	•	•	•	•	•	•	•	•
INMETRO	•	•	•		•	•	•	
КС	•	•	•		•	•	•	
KIMM			•					
MDR	•							
MSHA	•	•	•					
PA-DEP	•	•	•					
SANS 1515/MASC-IA		•	•		•			
TIIS			•					
UL	•	•	•	•	•	•	•	٠

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

## Pricing

Authorized Industrial Scientific distributors may access list pricing for monitors, accessories, CPO, and rental by visiting www.indsci.com/pricing or scanning this QR code.









Follow Industrial Scientific @IndSci\_Corp



See what's happening @industrial\_scientific



Connect with us Industrial Scientific



## INDUSTRIAL SCIENTIFIC

www.indsci.com REV 10 2024

AMERICAS Phone: +1-412-788-4353 1-800-DETECTS (338-3287) | info@indsci.com **ASIA PACIFIC** Phone: +65-6561-7377 Fax: +65-6561-7787 | info@ap.indsci.com **EMEA** Phone: +33 (0)1 57 32 92 61 Fax: +33 (0)1 57 32 92 67 | info@eu.indsci.com