



OIL & GAS GUIDE

This guide provides an overview of TracXP and AimSafety Oil & Gas products, applications and solutions for contractors, emergency responders, engineers, integrators and other safety professionals.

TABLE OF CONTENTS

Gas Detection 101	3
Key Organizations	4
Hazardous Locations Classification	5
Personnel Safety.....	5-6
Area/Site Safety.....	7
Upstream (Exploration & Production).....	8-9
Midstream (Gathering & Transportation).....	10-11
Downstream (Refining & Processing).....	12-13
TracXP Control Panel Overview.....	14
Gas Transmitter Overview.....	15
Integral/Remote Sensor Configurations.....	16
Sample Draw Solutions.....	17
Flame Detection.....	18-19
Wireless Solutions.....	20
Common Accessories.....	21

GAS DETECTION 101

OIL & GAS HAZARDS TO BE AWARE OF



FLAMMABLE

- Having the right combination of an ignition source, oxygen, and fuel in a gas or vapor form provides for the necessary means to create a fire or explosion
- The minimum concentration of combustible gas or vapor necessary to support its combustion in air is defined as the Lower Explosive Limit (LEL). Below this level, the gas mixture is too "lean" to burn
- The maximum concentration of a gas or vapor that will burn in the air is defined as the Upper Explosive Limit (UEL). Above this level, the mixture is too "rich" to burn
- The range between the LEL and UEL is known as the flammable range for that gas or vapor
- Commonly encountered flammable gases include but are not limited to Methane / Natural Gas, Hydrogen, Propane, Ethylene, Propylene and Acetylene



TOXIC

- Some gases are poisonous and are dangerous to life, even at very low levels. Some toxic gases have distinct odors Hydrogen Sulfide, Sulfur Dioxide, Benzene, Hydrogen Fluoride, Ammonia, and others have no odors at all (CO)
- Very low levels inhaled, ingested, or absorbed through the skin pose adverse effects from exposure
- Commonly encountered toxic gases including but are not limited to Hydrogen Sulfide, Sulfur Dioxide, Benzene, Hydrogen Fluoride, Ammonia, Hydrogen Chloride, Methyl Mercaptan, Nitrogen Dioxide and Volatile Organic Compounds



ASPHYXIAN OR OXYGEN DEPLETING

- Where Oxygen levels are too rich, environments have the potential to become an explosive environment
- When Oxygen levels are depleted, personnel may become drowsy, disoriented and even succumb to asphyxiation
- Common Oxygen displacing gases include Carbon Dioxide, Nitrogen as well as Oxygen consuming or depleting industrial processes

KEY ORGANIZATIONS

WHICH STANDARDS ARE FOLLOWED?



FEDERAL ORGANIZATIONS

OSHA - Occupational Safety and Health Administration

The Occupational Safety and Health Administration establishes safety standards and regulations designed to protect workers from chemical exposure and other hazards in the workplace.

NIOSH - National Institute for Occupational Safety & Health

National Institute for Occupational Safety and Health conducts research and provides recommendations to improve worker safety and health.

EPA - Environmental Protection Agency

The Environmental Protection Agency regulates environmental aspects of oil and gas operations, including emissions and waste management.

BSEE - Bureau of Safety and Environmental Enforcement

The Bureau of Safety and Environmental Enforcement enforces safety and environmental regulations for offshore oil and gas operations.

CSB - Chemical Safety Board

The Chemical Safety Board investigates root causes of major incidents to drive chemical safety best practices.

DOT - Department of Transportation

The Department of Transportation regulates the transportation of hazardous materials, including oil and gas.

USACE - U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers oversees the permitting process for pipeline projects and ensures compliance with environmental regulations while preventing significant adverse effects on natural resources.

INDUSTRY ASSOCIATIONS

API - American Petroleum Institute

The American Petroleum Institute develops industry standards for safety, environmental protection, and operational efficiency.

IOGP - International Association of Oil & Gas Producers

International Association of Oil & Gas Producers promotes best practices and standards for safety and environmental management in the oil and gas sector.

GCA - Gas Compressor Association

The Gas Compressor Association is focused on promoting health and safety initiatives, as well as environmental compliance, within the natural gas compression industry.

ISO - International Organization for Standardization

The International Organization for Standardization (ISO) develops international standards that enhance safety and efficiency in oil and gas operations.

CGA - Compressed Gas Association

The Compressed Gas Association develops and publishes safety standards and practices for industrial and medical gas supply industries.

AIHA - American Industrial Hygiene Association

The American Industrial Hygiene Association advocates for worker and community health by coordinating research on exposure sampling methodologies and promoting best practices for occupational and environmental health and safety.

JURISDICTIONAL BODIES

RRC - Railroad Commission of Texas

State and Local Specific Oil and Gas Associations



HAZARDOUS LOCATIONS CLASSIFICATION

Hazardous location classification, also known as hazardous area classification, is a system used to identify and categorize areas where the presence of flammable gases, vapors, liquids, combustible dust, or other hazardous materials creates a potential risk of fire or explosion. This classification is crucial for ensuring safety in upstream, midstream and downstream applications.

The classification process typically involves several key steps:

1. **Identify Hazardous Substances:** Determine the types of hazardous materials present in the area. These materials are typically categorized into classes, divisions, and groups based on their properties.
 - **Gases and Vapors:** These materials are classified into various groups based on their ignition properties and characteristics.
2. **Determine Classes and Divisions:** Area classification is determined based on the likelihood of the flammable gases and vapors present along with the potential duration of their presence. Hazardous areas are typically divided into classes and divisions:
 - **Division System:** In the Division system, areas are classified into Divisions 1 and 2. Division 1 denotes that the hazardous substance is present during normal operations, while Division 2 indicates that the hazard may be present under abnormal conditions.

PERSONNEL SAFETY

Personal Monitoring: The use of wearable gas monitors ensures one's safety in environments where toxic and/or combustible gases may be present. Lightweight AimSafety portable gas detectors are simple to operate and designed to be worn conveniently in the breathing zone of a worker. These critical components ensure the ultimate in personnel safety within the workplace for facility employees, trucking and transportation operators, contractors, temporary workers and site visitors alike.



PERSONNEL SAFETY

Single Gas: A cost-effective, low-maintenance solution for single gas hazards. Features 2-year battery life with no charging or replacement needed, and audible, visual, and haptic alarms. Available sensors include CO, H₂S, O₂, H₂, SO₂, NH₃, and more.



Multi Gas: Rugged and cost-effective, the PM400 delivers accurate readings for CO, H₂S, O₂, and combustible gases (LEL). Choose from IR sensors for longer battery life, inert atmosphere operation, and resistance to poisons/inhibitors, or catalytic bead sensors for H₂ detection (requires O₂ to function). Ideal for demanding environments, with reliable data logging and performance.



Multigas w/ Integral Pump: The newest in the AimSafety lineup, the PM500 is a rugged, pump-driven handheld monitor that can detect up to six gases simultaneously. It comes standard with CO, H₂S, O₂, and LEL sensors, and can be equipped with a PID for VOCs like benzene. Additional sensors include SO₂, NH₃, NO₂, and CO₂. Use the TXP-SPK probe kit or extended tubing for safe sampling in confined or hard-to-reach spaces. Choose your LEL sensor based on application-specific hazards.



Performance and Documentation: AimSafety bump test and calibration stations are the best method for ensuring best-in-class portable gas monitor performance and accuracy. The PM100 and PM400 stations are designed for use with up to four monitors at a time, whereas the PM500 comes in a single-bay configuration.

AREA / SITE SAFETY

PROTECTION OF HUMAN LIFE:

TracXP continuous gas and flame detectors offer 24/7 protection from hazardous gases and fires, minimizing personnel exposure risks linked to manual monitoring.

Automated alarms ensure safety by providing early detection and alerts to keep people out of harm's way. Macurco offers audible and visual alarms in various colors, decibel levels, and classifications.

ASSET PROTECTION:

- o Engineered controls interlocked with a TracXP gas and flame detection system can prevent costly downtime, delays and restarts.
- o Safety systems also protect valuable assets from damage caused by explosions, fires, and corrosion from prolonged or high gas exposure.
- o Remote monitoring services alert relevant personnel to threats and hazards at unmanned, isolated facilities.

ENVIRONMENTAL PROTECTION:

The monitoring of emissions and early detection of leaks reduces pollution and the overall environmental impact of industrial processes.

COMMUNITY RELATIONS:

TracXP systems support proactive gas monitoring and documentation to build community trust and reduce negative publicity. Protecting nearby schools, neighborhoods, and businesses is key to maintaining public confidence. Tactics like fenceline monitoring help quickly detect and address gas or odor releases into surrounding areas.

LOCAL CODE & REGULATION COMPLIANCE:

TracXP's real-time monitoring and data archival capabilities assist with compliance of jurisdictional rules and mandates, thus avoiding fines, penalties and delays.

UPSTREAM (EXPLORATION AND PRODUCTION)

OIL & GAS EXPLORATION:

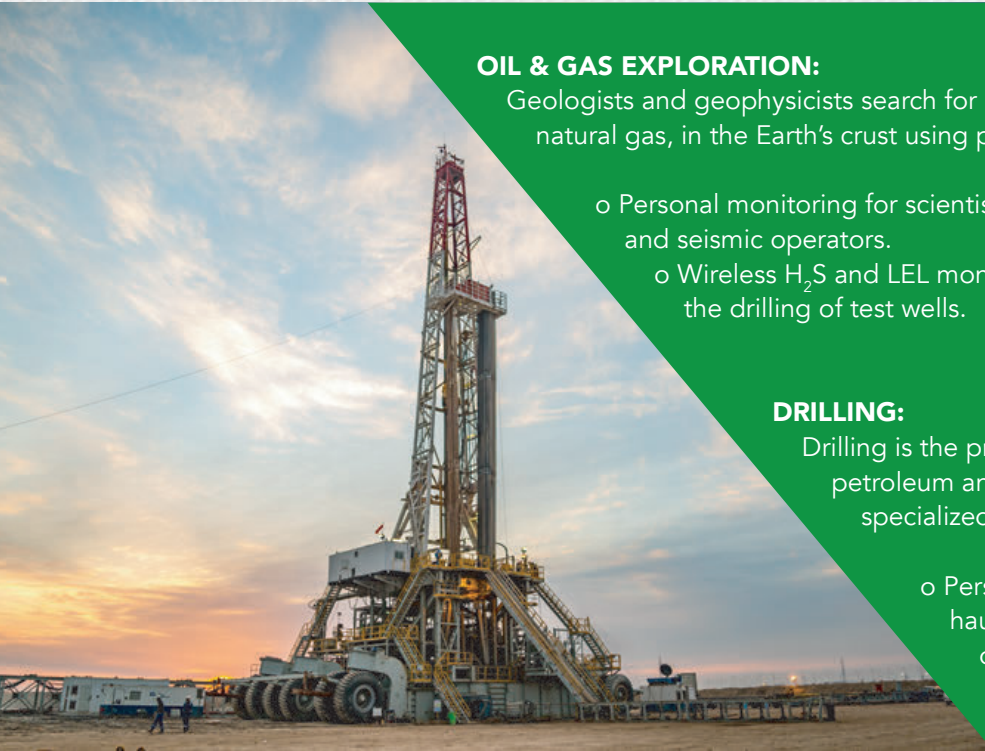
Geologists and geophysicists search for hydrocarbon deposits, particularly petroleum and natural gas, in the Earth's crust using petroleum geology and seismology.

- o Personal monitoring for scientists, engineers, surveyors, transportation workers and seismic operators.
- o Wireless H₂S and LEL monitoring provides rapidly deployable safety during the drilling of test wells.

DRILLING:

Drilling is the process of boring into the Earth to extract petroleum and natural gas from underground reservoirs using specialized equipment and techniques.

- o Personal monitoring for rig operators, resource haulers (sand, water, chemical, equipment)
- o Wireless H₂S, LEL and SO₂ monitoring ensures site safety and rig protection.



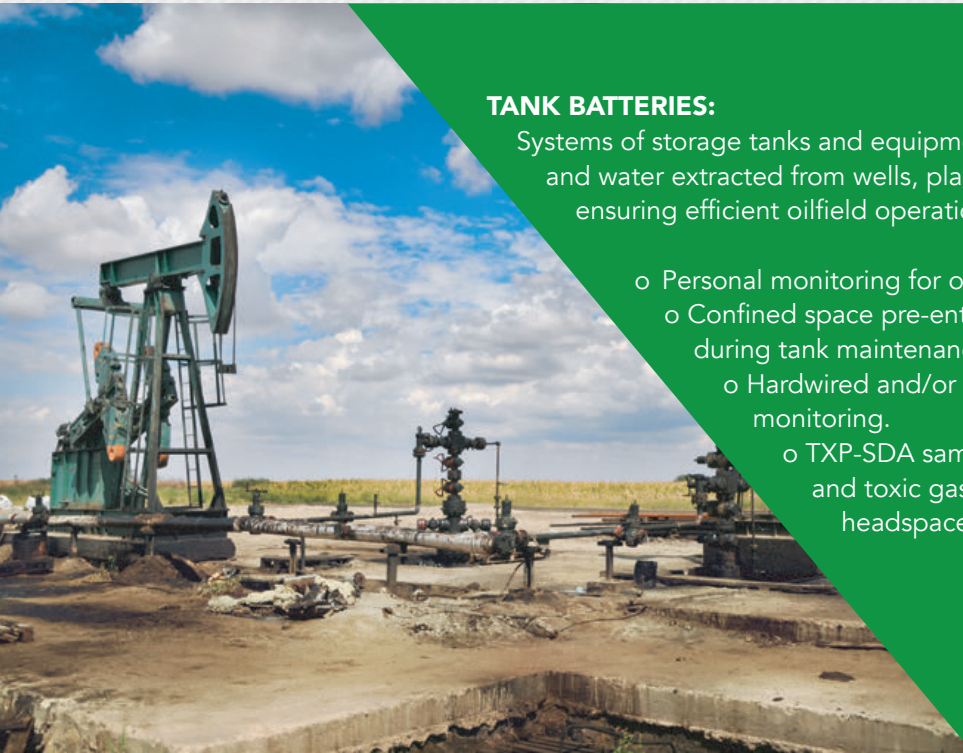
HYDRAULIC FRACTURING & FLOWBACK OPERATIONS:

Fracking extracts oil and gas from deep rock by injecting high-pressure water, sand, and chemicals to create fractures, freeing trapped resources. New methods use gases like carbon dioxide and propane. Flowback operations recover and recycle fluids from the wellbore after fracking.

- o Personal monitoring for frac crews, equipment operators, engineers, environmental health and safety (EHS) professionals and supervisory personnel.
- o Wireless H₂S, LEL and CO₂ continuous monitoring generates early notification and alarms of an unexpected gas release.



UPSTREAM (EXPLORATION AND PRODUCTION)



TANK BATTERIES:

Systems of storage tanks and equipment that store, process, and separate crude oil, gas, and water extracted from wells, playing a key role in managing production flow and ensuring efficient oilfield operations.

- o Personal monitoring for operations, maintenance and transportation workers.
- o Confined space pre-entry testing through horizontal and vertical hatches during tank maintenance and cleaning.
- o Hardwired and/or wireless fixed systems for production and fenceline monitoring.
- o TXP-SDA sample draw systems continuously monitor combustible and toxic gases in produced water and crude oil tank headspaces.

WORKOVER:

Maintenance and repair on existing wells to restore or boost production, including replacing downhole equipment like sucker rods, wipers, bits, tubing, safety valves, and pumps. Flow rates can also be improved by re-fracturing the reservoir.

- o Personal monitoring for the workover crew.
- o Wireless gas detectors are quickly deployed using magnetic mounts and onboard batteries, eliminating the need for power and communication wiring and reducing trip hazards.

ACIDIZING:

A technique used to enhance the production of oil and gas wells by injecting hydrochloric or hydrofluoric acid to dissolve corrosion and open up tight rock formations that restrict flow.

- o Wireless gas monitoring is strategically positioned between the acid source and the wellbore.

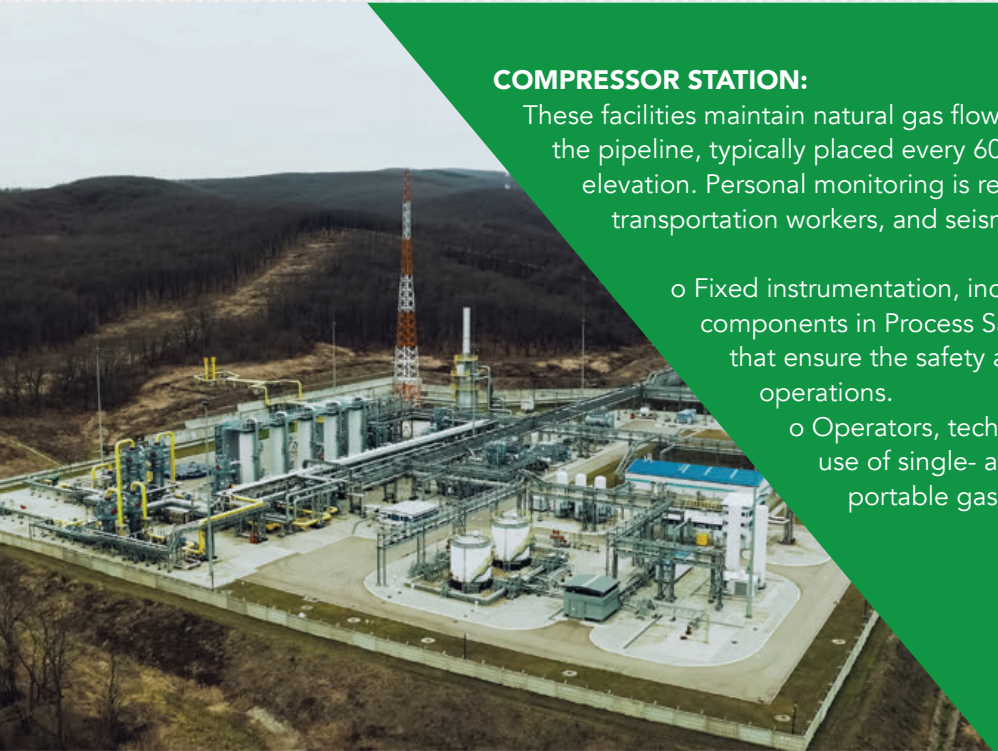


MIDSTREAM (GATHERING & TRANSPORTATION)

COMPRESSOR STATION:

These facilities maintain natural gas flow and pressure by compressing it and returning it to the pipeline, typically placed every 60 miles to offset pressure loss from friction and elevation. Personal monitoring is required for scientists, engineers, surveyors, transportation workers, and seismic operators.

- o Fixed instrumentation, including gas and flame detection, are key components in Process Safety Management (PSM) and automated systems that ensure the safety and performance of pipeline and transport operations.
- o Operators, technicians, engineers and safety officers require the use of single- and multigas personal monitoring as well as portable gas sampling detectors for confined space entry.



PIPELINE:

A system of pipes used to transport crude oil, natural gas, ammonia, carbon dioxide and refined products. This is generally the most economical method for moving large quantities of these gas and liquid commodities.

- o Temporary wireless gas detection systems offer protection and early alerts during construction and tie-in phases.
- o Permanent gas and flame detectors are installed at metering sites, town border stations, and local gas utility points.
- o Portable safety monitors must be worn by pipeline operators, construction workers, welders, engineers, and safety inspectors.



MIDSTREAM (GATHERING & TRANSPORTATION)



TANK FARM:

A facility with multiple storage tanks for bulk petroleum, chemicals, and fluids, essential for fuel storage and distribution, often near refineries or extraction sites.

- o Fixed gas and flame detectors provide real-time monitoring and early warnings of leaks and fires, automatically activating valves and suppression systems.
- o Operators, maintenance workers, safety officers, and construction laborers all need personal gas monitors.

STORAGE:

Facilities at marine and inland terminals that store crude oil, natural gas, and by-products between production and use.

Storage methods include underground caverns, fixed and floating roof tanks, bullet tanks, spheres, barges, tankers, and FPSOs.

TERMINAL:

Facilities where crude oil, refined products such as gasoline or diesel, and natural gas liquids are processed and distributed. These sites play a crucial role for ensuring efficient flow and delivery to end users by means of truck, rail and/or marine transportation.

- o Fixed detection systems monitoring levels of combustibles, toxics and VOCs.
- o Flame detection near transfer points, pumps and manifolds.
- o Logistics coordinators, terminal operators, maintenance technicians and environmental health and safety managers are required to wear personal gas monitoring devices.



DOWNSTREAM (REFINING / PROCESSING)



OIL REFINING:

Crude oil is a complex hydrocarbon mixture that must be refined before use. Refining transforms it into valuable fuels and by-products. The following processes enhance production efficiency, support carbon capture and reclamation, and yield higher-quality petroleum products and industrial materials.

DISTILLING:

Superheated oil vapor enters distillation columns, where compounds separate by boiling point and density. Light gases like butane rise to the top, while gasoline, naphtha, kerosene, diesel, and heavy oil condense at different levels below.

- o TXP-T40 gas transmitters provide continuous fixed monitoring of H_2S and other toxics, combustible gases and VOCs in areas where leaks may occur, such as pumps, valves, flanges and pressure relief devices.

CRACKING:

A method of breaking down long-chain hydrocarbon molecules into shorter, more valuable products like gasoline and diesel oil through high heat and pressure. Chemical cracking involves the use of catalysts to speed up this process.

- o Alkylation (alky) units often use sulfuric and/or hydrofluoric acid as catalysts, which can release highly toxic SO_2 and hydrogen fluoride (HF) gases. Perimeter monitoring can be easily achieved through wireless communication with the use of TXP-WTA transmitters connected back to a TXP-WCR control panel.
- o The PM500 with sampling pump and probe is essential for catalyst replacement and column servicing. The IR LEL model detects combustible vapors even in inert environments.



DOWNSTREAM (REFINING / PROCESSING)

REFORMING:

A chemical process that restructures hydrocarbons to convert low-octane naphtha into high-octane reformate, a key gasoline blending stock. Reformate also contains benzene and toluene, aromatic compounds used in plastic production.

- o Hydrogen (H_2) is generated during this step and reused in other refining processes like hydrotreating.

TREATMENT:

Techniques remove contaminants like nitrogen, sulfur, heavy metals, and VOCs (e.g., benzene). Hydrodesulfurization (hydrotreating) is the most common, using hydrogen, absorption columns, or acids to separate impurities. Recovered materials are often sold as industrial feedstock.

- o SO_2 , H_2S , and C_6H_6 are common by-products and hazards of hydrotreating and can be detected using AimSafety portable monitors or TracXP industrial transmitters.

NATURAL GAS PROCESSING:

Similar to crude oil, raw natural gas requires extensive processing to produce pipeline-quality product suitable for distribution and use.

- o Purification: Removes water, CO_2 , H_2S , mercury, nitrogen, and other contaminants to ensure gas safety and efficiency.
- o Liquefaction: Cools natural gas to $-260^\circ F$, turning it into liquid for easier transport.
- o Separation: Isolation of lighter hydrocarbons, such as ethane, propane, and butane, allows them to be sold as valuable by-products due to their high energy content.
- o Odorization: The introduction of methyl mercaptan (CH_3SH) to natural gas is a safety process implemented to ensure that the otherwise odorless gas has a detectable smell and can easily be identified if a leak occurs.



NG →

TRACXP CONTROL PANEL OVERVIEW



TXP-WCR



TXP-C40



TXP-C16X



TXP-C64

*Class I Division 2 polycarbonate/fiberglass panels shown above. Class I Division 1, NEMA 7 options available. Contact your local TracXP sales representative for additional information.

TXP CONTROL PANEL FEATURES

	TXP-WCR	TXP-C40	TXP-C16X	TXP-C64
Total Sensor Channels	32	4	16	64
Onboard Relays	8	2	5	5
Optional Add-on Relays	NO	6	32	64
Total Relay Options	8	8	37	69
4-20mA Analog Outputs	NO	UP TO 4	UP TO 16	UP TO 64
4-20mA Analog Inputs	NO	UP TO 4	UP TO 16	UP TO 64
Modbus RS-485 I/O	1 (ADD-ON)	1 (ADD-ON)	2 (STANDARD)	2 (STANDARD)
Embedded Webpage	YES (ADD-ON)	NO	YES	YES
Color Indicating Display	NO	NO	YES	YES
900 MHz Wireless Radio	YES	NO	YES (ADD-ON)	YES (ADD-ON)

GAS TRANSMITTER OVERVIEW

TXP-T40 Wired Transmitter

- Certified for Class I, Division 1 or Division 2
- Status indicating color LCD TFT display
- Displays gas values, units of measurement, trend graphs and alarm levels
- Dual integral or remote sensor capable
- Modbus TCP/IP® Ethernet port with web server
- Three configurable 5A relays and a fault relay
- Dual Modbus® RS-485 RTU (Digital)
- Dual 4-20mA output (Analog)



TXP-WTA Wireless Transmitter

- Robust 900 MHz Radio
- Powered by disposable lithium battery
- Dual integral sensor capable
- Magnetic mount option
- Class I, Div. 2 (CID1 option available)
- Five LED indication for alarms (3) and communication status (2)

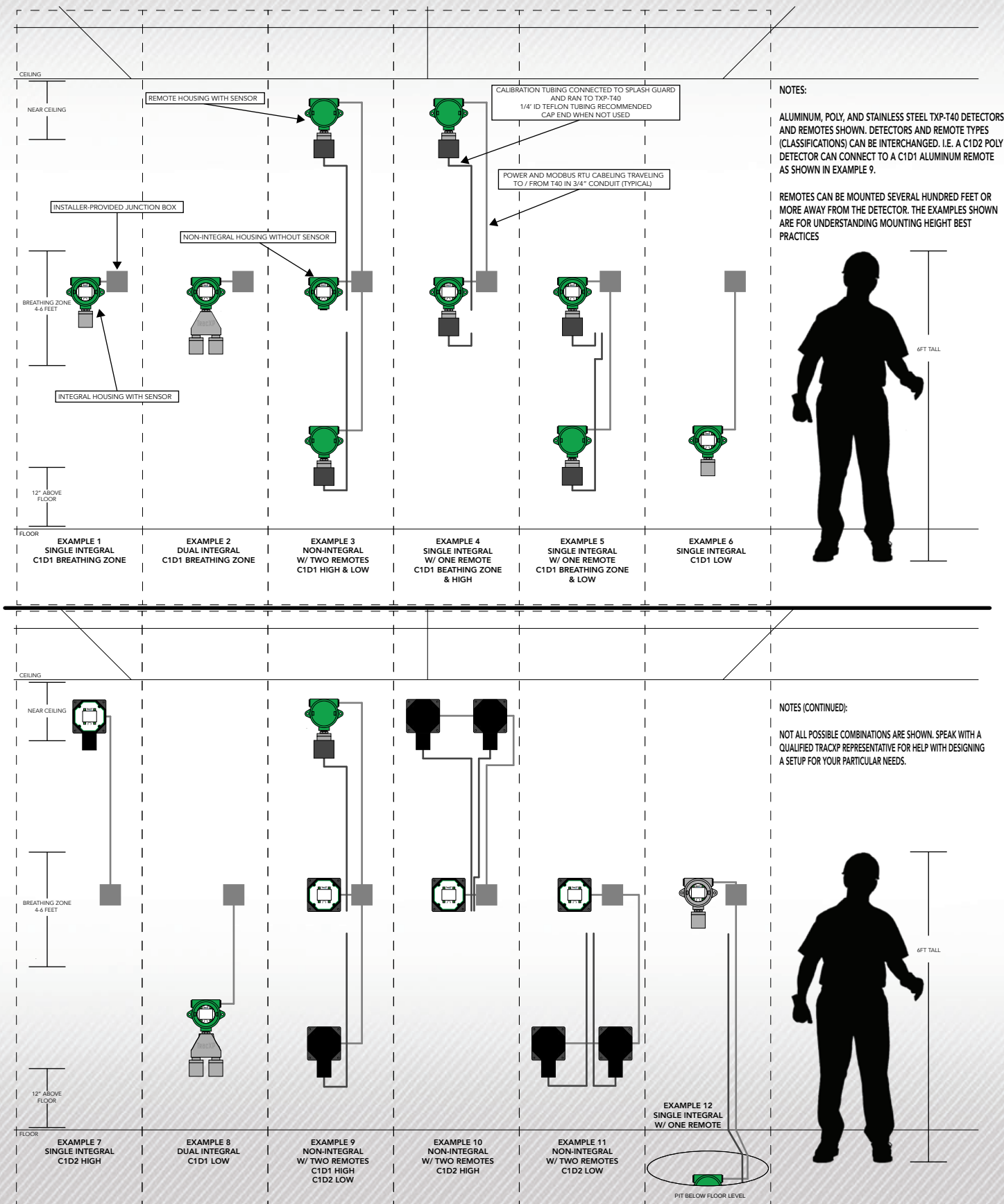


GAS SENSOR OPTIONS & RANGES

Gas Name	Symbol	Range & Measurement	Vapor Density (kg/m³)	%LEL	%UEL	Recommend Mounting Height
Toxic Gases						
Ammonia	NH ₃	0-100, 0-200, 0-300, 0-500 PPM	0.59	15	28	Roughly 12-18" from the ceiling
Carbon Dioxide	CO ₂	0-5,000 PPM, 0-5%, 0-100% VOL	1.842	NA	NA	Roughly 12-18" from the floor
Carbon Monoxide	CO	0-50, 0-200, 0-1,000, 0-2,000 PPM	1.14	12.5	74	Breathing Level 4-6"ft AFF
Hydrogen Chloride	HCl	0-100 PPM	1.6397	NA	NA	Roughly 12-18" from the floor
Hydrogen Fluoride	HF	0-40 PPM	0.92	NA	NA	Roughly 12-18" from the ceiling
Hydrogen Sulfide	H ₂ S	0-25, 0-50, 0-100, 0-200, 0-500, 0-1,000 PPM	1.53	4	44	Roughly 12-18" from the floor
Mercaptan	CH ₃ SH	0-10 PPM	1.60	4.1	21	Roughly 12-18" from the floor
Nitrogen Dioxide	NO ₂	0-10, 0-20 PPM	3.66	NA	NA	Roughly 12-18" from the floor
Oxygen	O ₂	0-25% VOL	1.331	NA	NA	Breathing Level 4-6"ft AFF
Sulfur Dioxide	SO ₂	0-20 PPM	2.26	NA	NA	Roughly 12-18" from the floor
Combustible Gases						
General Combustibles	Various	0-100% LEL	Gas Dependent	-	-	Gas Dependent
Acetylene	C ₂ H ₂	0-100% LEL	1.092	2.5	100	Breathing Level 4-6"ft AFF
Benzene	C ₆ H ₆	0-10 PPM, 0-2,000 PPM, 0-100% LEL	3.19	1.2	8.0	Roughly 12-18" from the floor
Butane	C ₄ H ₁₀	0-100% LEL	2.6	1.6	8.4	Roughly 12-18" from the ceiling
Ethane	C ₂ H ₆	0-100% LEL	1.355	3.0	12.4	Roughly 12-18" from the floor
Ethylene	C ₂ H ₄	0-100% LEL	1.18	2.7	28.6	Breathing Level 4-6"ft AFF
Hydrogen	H ₂	0-10,000 PPM, 0-100% LEL	0.0899	4	75	Roughly 12-18" from the ceiling
Methane	CH ₄	0-100% LEL, 0-100% VOL	0.55	5	15	Roughly 12-18" from the ceiling
Propane	C ₃ H ₈	0-100% LEL	1.882	2.1	9.5	Roughly 12-18" from the floor
Volatile Organic Compounds	VOC	0-10, 0-200, 0-2,000, 0-4,000 PPM	Gas Dependent	-	-	Gas Dependent

*For additional gases and ranges, contact your local TracXP representative.

INTEGRAL/REMOTE SENSOR CONFIGURATIONS

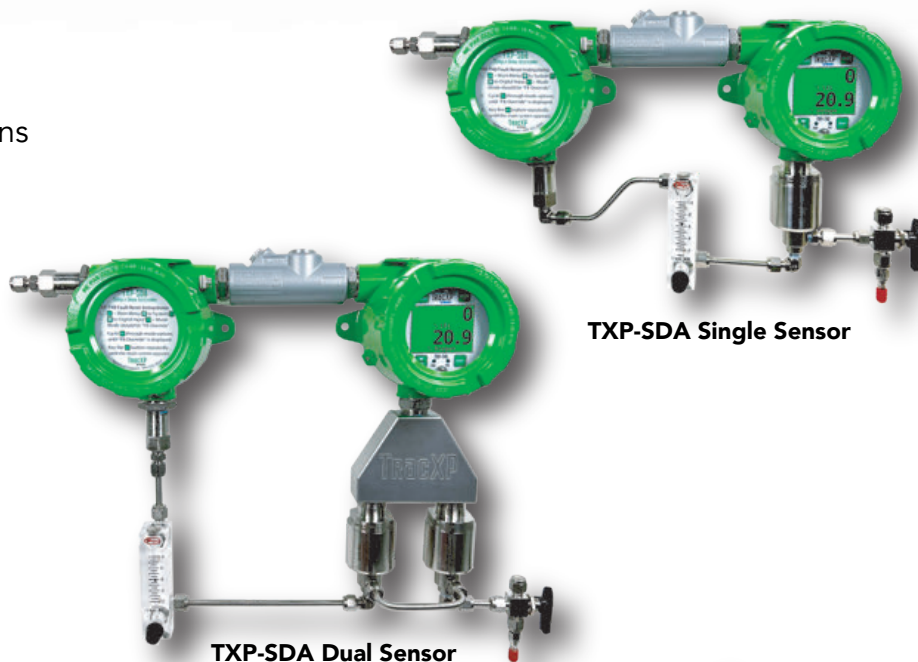


TXP-SDA SAMPLE DRAW SOLUTIONS

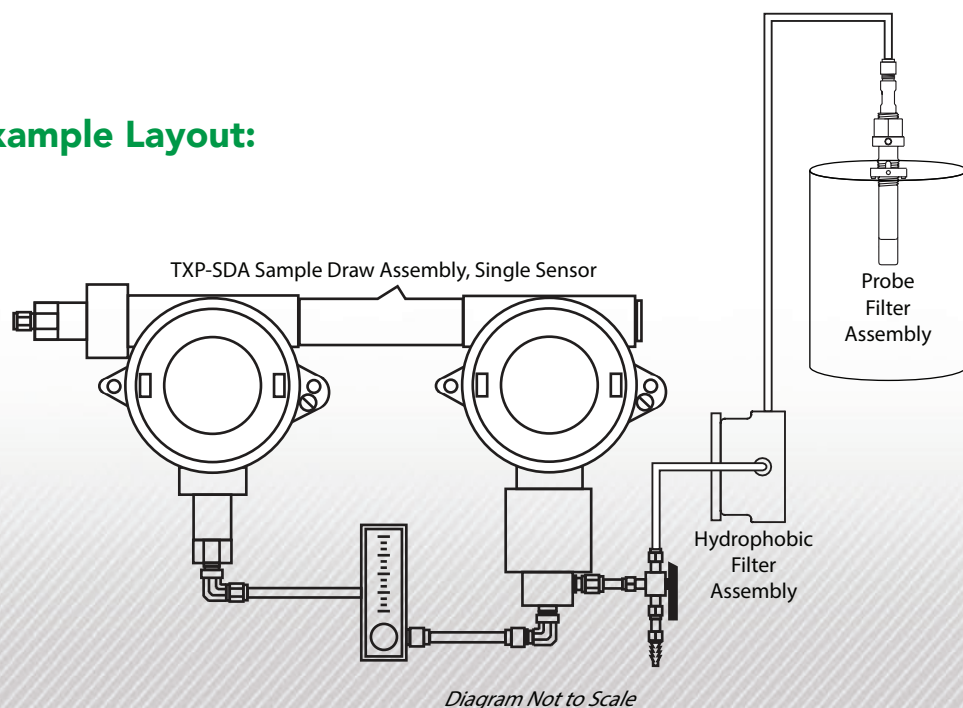
The TracXP TXP-SDA Sample Draw Assembly is designed to pull a gas sample from limited access or hostile environment applications where fixed gas detectors cannot be directly installed such as tank headspaces, scrubbers, ducts, vessels, wet wells, sumps, confined spaces and other challenging applications.

Features:

- Suitable for Class I, Division 1 applications
- Supports single or dual-sensor configurations
- Utilizes all sensors within the TXP-T40 product offering
- Vivid status indicating color display
- Dedicated calibration port allows for calibrations at sample flow to ensure maximum accuracy
- Flow interruption fault indication
- Proper filtration protects equipment, ensures accuracy and maintains system performance



Example Layout:



**97-8000-0200-03
Probe Filter**



**97-8000-0200-00
Hydrophobic Filter**

FLAME DETECTION

Features:

- IR3 and UV/IR models available for detection of hydrocarbon and/or non-hydrocarbon flames
- High immunity to false alarm
- Ultra-fast response to explosions and fireballs
- Three relay contacts (two alarm and a fault)
- 4-20mA analog with HART® 7.0
- Modbus RS-485 RTU outputs
- Internal tests for window clarity and operation
- Window heater to avoid icing and condensation
- Tilt mount included for two-axis adjustments
- HD camera option provides live monitoring and automatic video recording of fire events



Flame simulators are often used to perform detector testing during commissioning and periodic system testing. The TXP-FDE simulators are inexpensive, lightweight and simple to use. The modern ergonomic design, with alignment markers, allows accurate, fast and convenient detector performance verification. Suitable for use in hazardous areas, the TXP-FDE flame simulators can be used at distances of up to 23 feet (7 meters) from the detector. Three different models are available for testing each type of TXP-FDE Flame Detector (IR3, IR3-H2 and UV-IR).

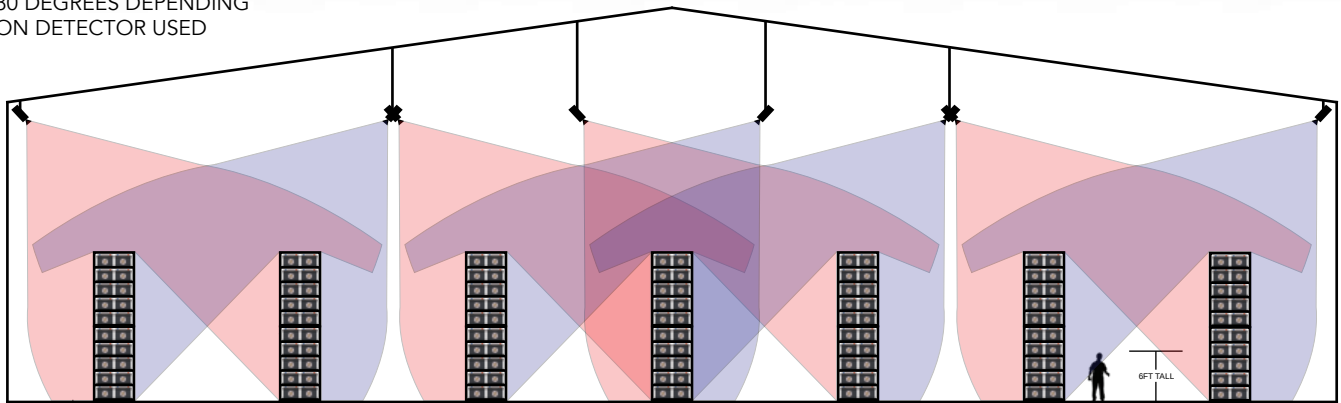
Application	UV/IR	IR3	IR3-H2
Chemical, Fuel & Solvent Storage (Indoor)	Best*	Good	
Chemical, Fuel & Solvent Storage (Outdoor)	Good	Best*	
Hydrocarbon Storage & Processing	Good	Best	
Hydrogen Storage & Processing	Good		Best
Tanker Loading Racks	Good	Best	
Laboratories	Best*	Good	
Terminals: Truck, Rail, & Marine	Good	Best	
Machinery Operations	Best*	Good	
Pipeline Compressor Stations	Good	Best	
Produced Water Disposal Facilities	Good	Best	

*Applications may vary due to fuel source, materials and chemicals on site. Contact Macurco for guidance on model selection.

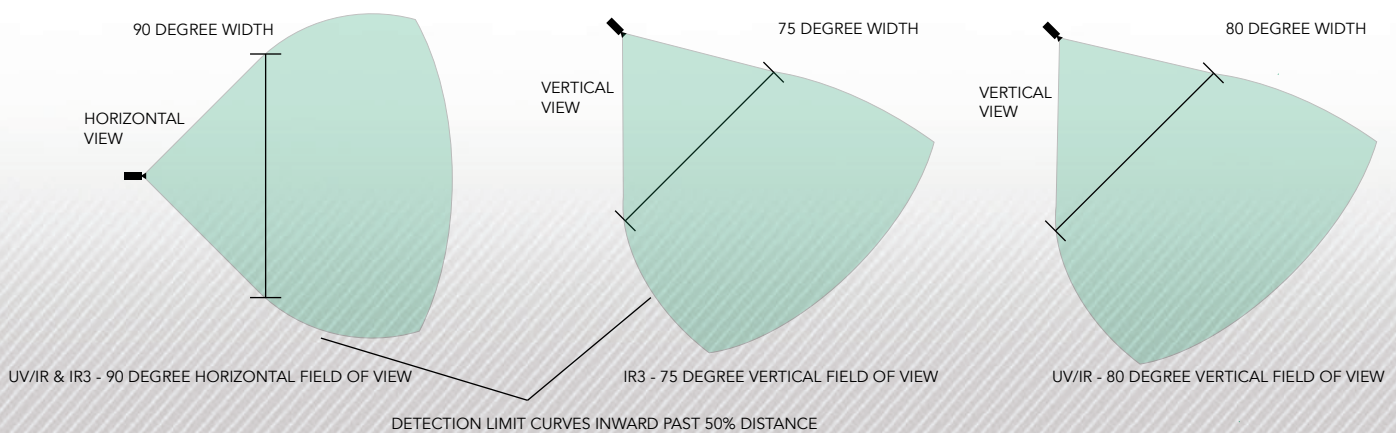
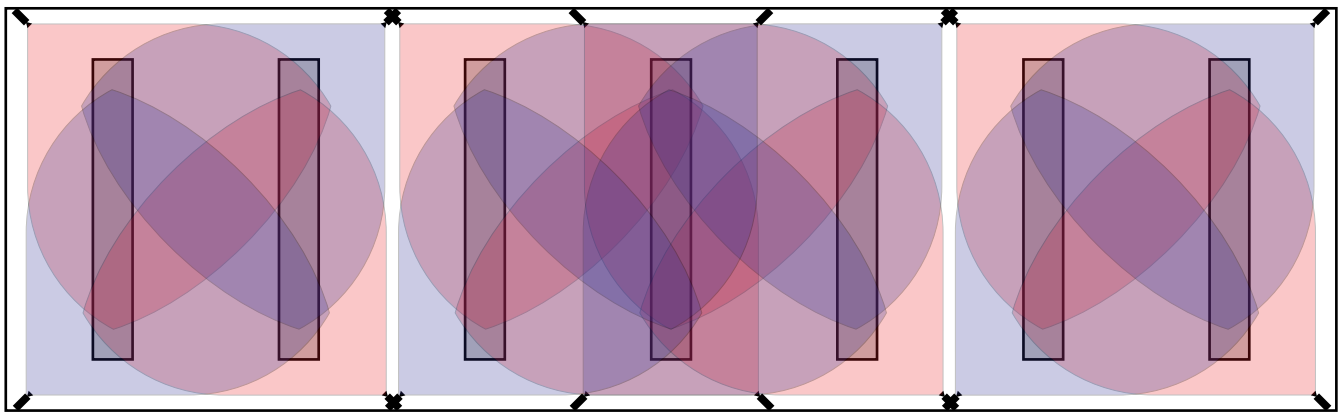
EXAMPLES OF DESIGNING A FLAME DETECTION SOLUTION

DETECTORS SHOULD BE PLACED AND AIMED FOR MAXIMUM COVERAGE OF SENSITIVE AREAS WITH ACCOUNT OF OVERLAP
FLAME DETECTOR TYPE USED DEPENDS ON POTENTIAL FLAME TYPE

VERTICAL COVERAGE 75 OR
80 DEGREES DEPENDING
ON DETECTOR USED



HORIZONTAL COVERAGE 90 DEGREES TYPICAL



TRACXP WIRELESS SOLUTIONS

There are many forms of wireless communication used within the TracXP product family.

900 MHz

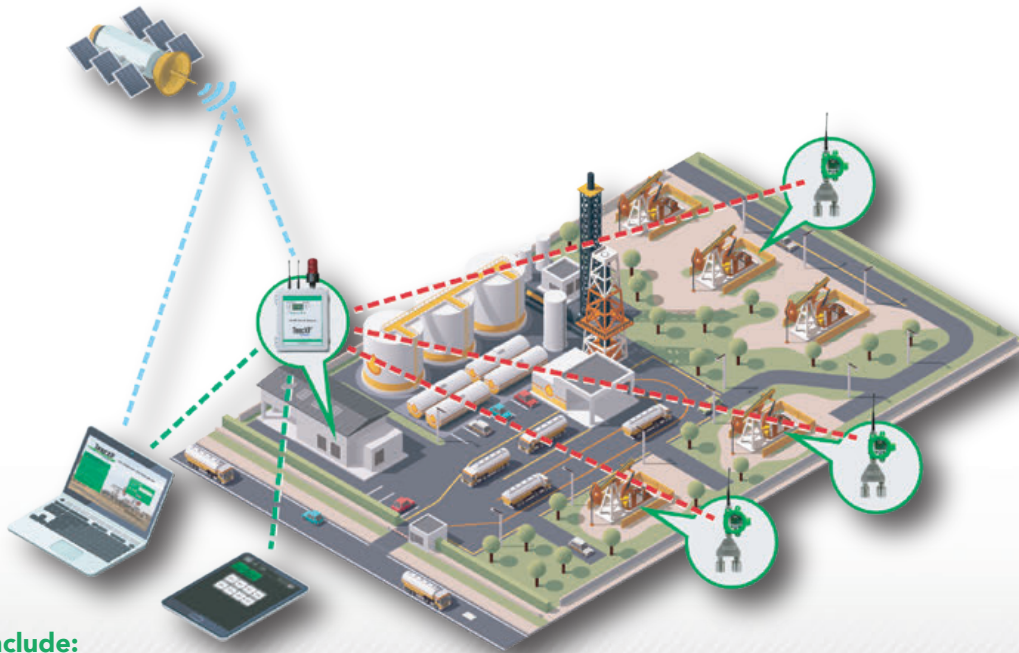
900 MHz is a robust, license free (North America) radio band used for local communications and transmits up to two to three miles line-of-sight (LOS). This is how the interaction occurs between the Wireless Transmitter Assembly ([TXP-WTA](#)), the Wireless Control Receiver ([TXP-WCR](#)) and the Wireless Alarm Relay ([TXP-WAR](#)). The TXP-WAR is the core of our wireless notification, such as the Alarm Notification Assembly ([TXP-ANA](#)) or the Wireless Alarm Bar ([TXP-WABX](#)). If distance needs to be increased, a Wireless Radio Repeater ([WRR](#)) is available. Prior to installation and set up, all monitoring points should be validated for signal strength via the Signal Validation Tool ([TXP-SVT](#)).

Wi-Fi

Wi-Fi is a family of wireless network protocols commonly used for local area networking of devices and internet access. This is an add-on option for the TXP-WCR, and provides real-time notification of site-specific alarm and trouble conditions. Remote programming of alarm setpoints and other configurable options is also possible with this technology. Wi-Fi on the TXP-WCR uses the 2.4 GHz radio band.

Satellite

Satellite communications utilize high frequency radio waves to enable data transmission in remote locations. Our Remote Monitoring Solution ([TXP-RMS](#)) delivers real-time field and operational intelligence for any wireless or wired gas detection system. The TXP-RMS is available in both non-hazardous and Class 1, Division 2 configurations, and provides users with a secure method for data collection and a convenient way to view and analyze it. This solution supports economical satellite transmission through communication of alarm and trouble events and exceptions in lieu of streaming data.



TXP-RMS features include:

- Automated Phone Callout (APC) functionality includes phone, text messaging and email communication
- Requires remote acknowledgment for callout cancellation
- Continuous datalogging provides historical event logging and data archival
- 24/7/365 real-time knowledge of what's happening, where and when
- Geographical mapping functionality provided through a user-friendly Graphical User Interface (GUI) supports multiple sites

COMMON ACCESSORIES

CALIBRATION KIT



TXP-WABX Wireless Alarm Bar



TXP-ANA



COMBO ALARMS



HORNS



STROBES



AIMSAFETY PORTABLES



AimSafety by Macurco blends over 50 years of gas detection innovation and development into new, advanced gas monitor solutions that help organizations protect workers and the community, and increase safety, compliance and revenue.

PM100 Single-Gas Options: Carbon Monoxide (CO), Hydrogen Sulfide (H₂S), Oxygen (O₂), Ammonia (NH₃), Sulfur Dioxide (SO₂), Nitrogen Dioxide (NO₂), or Hydrogen (H₂).

PM400 Multi-Gas: Hydrogen Sulfide (H₂S), Carbon Monoxide (CO), Oxygen (O₂) and Combustibles (LEL IR or Catalytic Bead).

PM500 Multi-Gas w/ Pump: Hydrogen Sulfide (H₂S), Carbon Monoxide (CO), Oxygen (O₂) and Combustibles (LEL IR or Catalytic Bead). Additional gases include VOCs (PID), SO₂, NH₃, NO₂ and others.

TracXP™

Industrial Gas Solutions

by Macurco

The Macurco product line offers equipment for industrial, commercial, and residential applications. Headquartered in Sioux Falls, South Dakota, Macurco strives to provide the highest quality detection, safety and security solutions to customers worldwide. Whether you are looking for monitoring specific gases in potentially hazardous environments, personal safety, building automation or HVAC system, or gas detection for a security system, Macurco has a gas detector to meet your needs.



Visit www.macurco.com for additional product information and training.

 Find us on
Facebook



 LinkedIn



Manufactured by Macurco Inc. Sioux Falls, SD

Phone: 1- 877-367-7891 - Email: info@macurco.com - www.macurco.com