

Rig Protector

**Multipoint Critical Gas
Detection
and Monitoring
System**

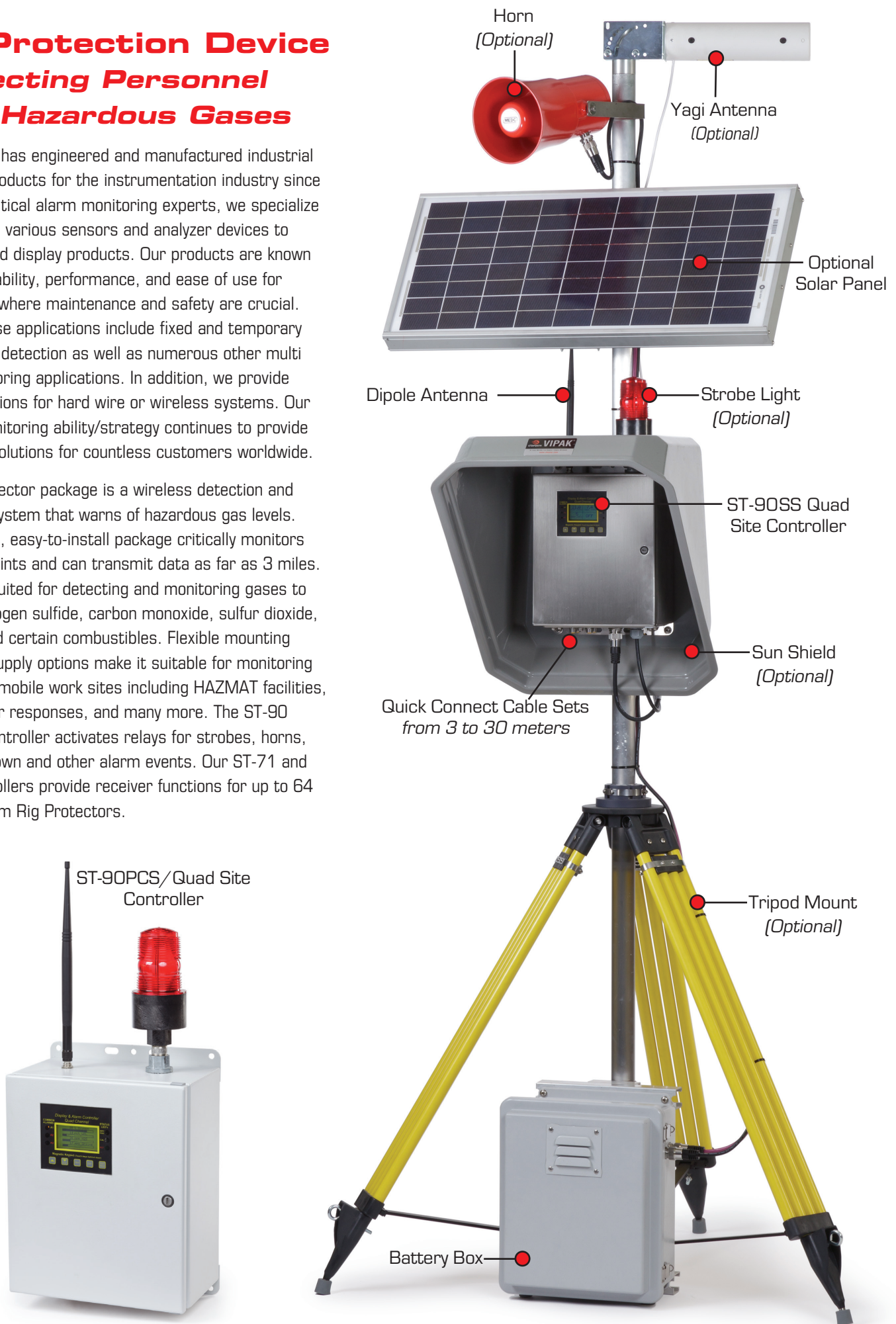


 **RC SYSTEMS**

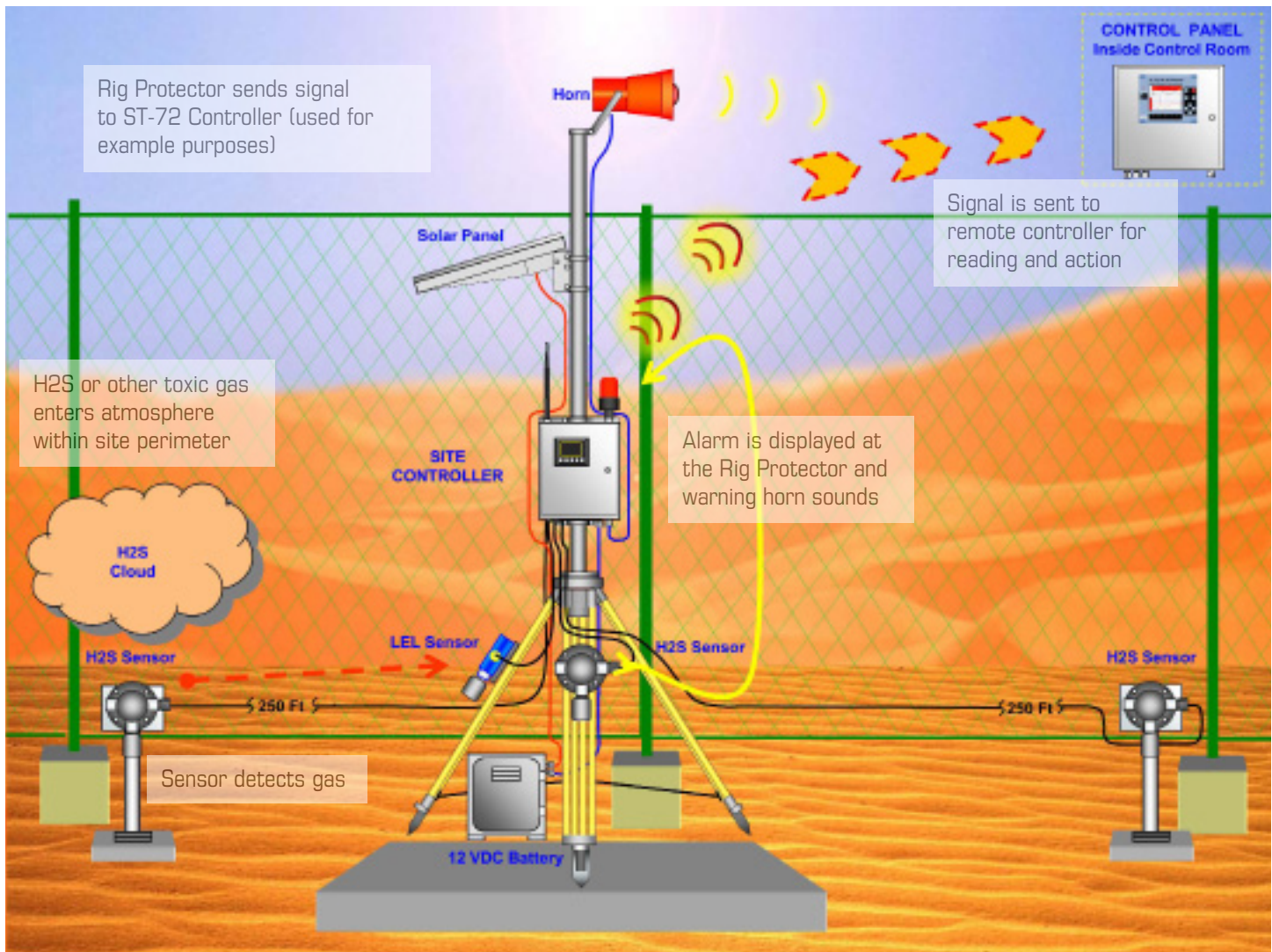
Rig Protection Device Protecting Personnel from Hazardous Gases

RC Systems has engineered and manufactured industrial electronic products for the instrumentation industry since 1979. As critical alarm monitoring experts, we specialize in interfacing various sensors and analyzer devices to our alarm and display products. Our products are known for their reliability, performance, and ease of use for applications where maintenance and safety are crucial. Some of these applications include fixed and temporary ambient gas detection as well as numerous other multi signal monitoring applications. In addition, we provide various solutions for hard wire or wireless systems. Our wireless monitoring ability/strategy continues to provide recognized solutions for countless customers worldwide.

The Rig Protector package is a wireless detection and monitoring system that warns of hazardous gas levels. The compact, easy-to-install package critically monitors up to four points and can transmit data as far as 3 miles. It is ideally suited for detecting and monitoring gases to include hydrogen sulfide, carbon monoxide, sulfur dioxide, ammonia and certain combustibles. Flexible mounting and power supply options make it suitable for monitoring perimeters, mobile work sites including HAZMAT facilities, rigs, disaster responses, and many more. The ST-90 Quad site controller activates relays for strobes, horns, fans, shut down and other alarm events. Our ST-71 and ST-72 controllers provide receiver functions for up to 64 Channels from Rig Protectors.



The Rig Protector in Action



Features and Benefits

- Up to four wireless or tethered inputs from monitors or bridge sensors.
- Standard package suitable for operation in Division 2 potentially hazardous areas.
- System size can be expanded to accommodate change in requirements.
- Wireless data transmitted up to 3000 feet with standard antenna.
- LCD readout with backlight. Displays bar graphs and engineering units.
- Flexible power input accepts 100-240VAC or 10-30VDC from battery and solar sources.
- Optional mounting include tripod, pole mount or magnetic mount.
- Touch and magnetic keypad for operation in potentially hazardous areas.
- Can be installed quickly without disturbing the worksite.
- Four independent alarm levels for each channel.
- Five amp SPDT alarm relays configurable for HORN, HIGH, WARN or FAULT alarm conditions.

SPECIFICATIONS

ANALOG INPUTS (OPTIONAL)

Available inputs include 4-20mA with precision 100 ohm terminating resistor (0-2 Volt inputs may be accepted by removing the socketed terminating resistor) and bridge sensor inputs with adjustable sensor excitation and balance settings

COMMON ALARM RELAYS (STANDARD)

Two, 5 amp 30VDC or 250VAC resistive Form C

ANALOG OUTPUTS (OPTIONAL)

10 bit 4-20mA output. Max load 800 ohms with nominal 24VDC power supply

OPTIONAL ALARM RELAYS (OPTIONAL)

Six 5 amp 30VDC or 250VAC resistive Form C

SERIAL PORT (OPTIONAL)

Modbus® Master/Slave RS-485 port equipped with Tx / Rx LED's 900MHz FHSS wireless Modbus® slave with RP-TNC connector 2.4GHz FHSS wireless Modbus® Slave with RP-TNC connector

DISPLAY

128 x 64 pixel graphic LCD with backlight displays bar graphs, and engineering units. Six LED's indicate alarm status, CAL MODE, keypad activity

AMBIENT TEMPERATURE RANGE

-25 to +60 degrees C

POWER SUPPLY

100-240VAC 10-30VDC are standard primary power supplies

Also suitable for 12VDC Solar Power

HOUSING OPTIONS

Non-Metallic (Poly)

NEMA 4X Non-Metallic/wall mount
Approved for Division 2

Painted Carbon Steel (PCS)

NEMA 4 Painted Carbon Steel/wall mount
Approved for Division 2

316 Stainless Steel (SS)

NEMA 4X Stainless Steel/wall mount
Approved for Division 2



RIG PROTECTOR MODELS

- * 90-14 ST-90 Poly/Rig/Quad NEMA 4X non metallic enclosure (PY)
- * 90-13 ST-90 Painted Carbon Steel/Rig/Quad NEMA 4 painted carbon steel enclosure (PCS)
- * 90-15 ST-90 Stainless Steel/Rig/Quad NEMA 4X stainless steel enclosure (SS)

*ST-90XX/Rig models include Four installed 1000-2282 quick connectors

OPTIONS/ACCESSORIES

- 10-0221-4 Four Channel 4-20mA analog input PCB option
- 10-0222 Optional relay with six 5 amp form C relay
- 10-0308 Quad 4-20mA output option
- 10-0253 RS-232/RS-485 Modbus RTU addressable interface
- 10-0309 Quad bridge sensor inputs option (may accept two 4-20's)
- 10-0227 RS-485/RS-232 Modbus® RTU interface option
- 10-0328 900MHz wireless interface with local 2dBi antenna
- 10-0355 2.4GHz wireless interface with local 7dBi antenna
- 10-0337 100db piezo audible alarm added to NEMA 4X enclosure
- 10-0284 Division 2 xenon red strobe light option
- 10-0285 Division 2 xenon amber strobe light option
- 10-0316 Division 2 xenon blue strobe light option
- 10-0334 30 Watt solar power supply for Division 2; with 55AH battery
- 10-0333 Tripod and column mounting option
- 10-0319 Magnetic mounting option
- 1000-2259 Integral Division 2 50 Watt 24VDC power supply
- 1000-2498 Transmitter stand
- 1000-2499 1.5" Pole mount bracket plate with u-bolt
- 10-0284 Strobe light suitable for Division 2 hazardous areas
- 1000-2638 Quick connector; 3/4" NPT; Division 2, Generation 2
- 1000-2641 Quick connector; female 3/4" NPT for XP sensor J-box end; Division 2
- 1000-2639 Quick connector; panel; Division 2, Generation 2
- 1000-2640 Lockfast cable guard; Division 2, Generation 2
- 1000-2620 3 Meter cable set; Division 2, Generation 2
- 1000-2621 8 Meter cable set; Division 2, Generation 2
- 1000-2622 15 Meter cable set; Division 2, Generation 2
- 1000-2623 30 Meter cable set; Division 2, Generation 2
- 1000-2624 50 Meter cable set; Division 2, Generation 2
- 1000-2625 76 Meter cable set; Division 2, Generation 2
- 1000-2626 100 Meter cable set; Division 2, Generation 2

* All cables offered in armored cable style (call for details)

Optional Plug-In and other Accessories

RC Systems has an offering of plug-in options for configuring a fit-for-purpose system and easily changing components as requirements vary. Other accessories are also available.



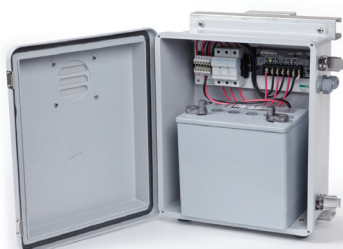
Solar Power Supply Transporting Case



Tripod Transporting Case



Rig Protector Transporting Case



Vented Fiberglass Battery Box



10-0281
110 Decibel Audible Horn,
Division 2



Solar panel for Charging 55AH
Battery, 30 Watt
10-0334



Alarm Station
AS/10-0281/10-0285/10-0284



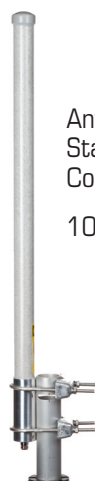
Multicolor Strobes
10-0284, 10-0316, 10-0285



Sun Shield for Improved LCD
Readout Visibility



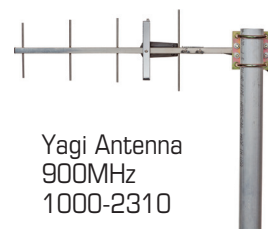
Yagi Antenna
2.4GHz
1000-2309



Antenna lightning Protector
1000-2310

Antenna Base
Station 2.4GHz,
Collinear
1000-2312

Straight Rubber antenna
900MHz and 2.4GHz
1000-2189



Yagi Antenna
900MHz
1000-2310

Antenna Base Station
900MHz, Collinear
1000-2312



RP-TNC Low Coax Antenna
Cable (See Guide)



Quick Connects
1000-2282



Quick Connector Cable Set



Quick Connector
Female 3/4" NPT
1000-2641



Quick Connector
Panel Mount
1000-2282

Lockfast Cable
Guard
1000-2283



Quick Connector
Male 3/4" NPT
1000-2638

1000-2498 Transmitter Stand
1000-2499 1.5" Pole Mount Bracket
Plate with U-Bolt



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