

حارس HARIS

COMPREHENSIVE
SITE PROTECTION
ISA 100.11a / MODBUS



A QUALITY PRODUCT OF



روابي Rawabi



UNITED
United Safety

RAWABI UNITED SAFETY SERVICES

MADE IN SAUDI ARABIA

www.rawabiholding.com



Using Haris™ ensures that *Health, Safety & Environment (HSE)* are always maintained at an optimum level!

Haris™ is a gas detection and warning system designed to save lives and assets anywhere, anytime! The sole purpose of Haris™ is to minimize accidents caused by toxic and combustible gases accidentally released during operations in the industry and make work places even safer.

Haris™ is a locally designed and developed solution by Rawabi United Safety Services (RUSS) for gas detection in up, mid and downstream applications where a potential toxic or combustible gas leak source needs to be identified and efficiently monitored around the clock. It is also easily adaptable to the residential environments that may have potential risk of being exposed to toxic gases released from the nearby facilities. Haris™ is designed considering ease of operation to the end user and expandability.

Haris™ is highly configurable to meet and exceed the client's needs and expectations. It fulfills various requirements from a wide coverage area, selectable wireless protocols, to custom alarm callouts, notifications and even integration with external pre-installed control systems.



SYSTEM MAP

Key Features

- Large scale perimeter gas detection system up to 16 perimeter stations and a controller station.
- Client defined radio frequency.
- Wireless Protocols: ISA100.11a (2.4 GHz) or Modbus RTU (VHF/UHF)
- 5 km coverage (Line-of-Sight, frequency dependent).
- Up to five gas sensors per station (selectable by client, optional wind sensors)
- Battery/solar power or AC options.
- Audible and visual alarms for each station.
- Configurable trigger limits.
- Option for remote audible and visual alarms.
- Event and periodic data logs (user extractable)
- Vibrant and interactive HMI designed for outdoors use.
- Configurable SMS alarm and diagnostics notifications up to 200 contacts.
- Field configurable and field replaceable units.
- Instant alarm notifications.
- High system availability.
- Integrates with client's DCS or SCADA systems.

Key Benefits

- Wide coverage area with large number of perimeter stations.
- Certified ISA100.11a wireless gas detection system option.
- Remarkable telemetry capabilities providing the user with up-to-date and accurate data from all sensors to a central location.
- Readily available data logs for quick analysis and leak pattern identification.
- Flexibility of configuration options to instantly meet all client demands.
- Full system support locally available around the clock.



System Specifications

	MODBUS RTU	ISA100.11a
PART NUMBER	RUSY0004	RUSY0005
GENERAL		
Communication Protocol	MODBUS RTU	ISA100.11a
Maximum number of Perimeter Stations	16	16
Max number of Repeater Station	1	2
Max number of gas sensor in system	48	80
Detection to Alarm Time	< 30s	< 30s
ENVIRONMENTAL		
Operating Temperature	-20 to 70 °C	-20 to 70 °C
Storage Temperature	-20 to 120 °C	-20 to 120 °C
Humidity	95% RH non-condensing	95% RH non-condensing
Lightning Protection	3 kV	3 kV
MECHANICAL		
Mounting	On Frame Wall mounting optional	On Frame Wall mounting optional
Frame Material	Aluminum, Painted	Aluminum, Painted
Frame Dimensions	200x70x50cm when retracted	200x70x50cm when retracted
Frame Weight	40 kg	40 kg
Frame Sensor Mounting	Adjustable over 40-100 cm	Adjustable over 40-100 cm
Frame Attachments	Sun shade Light reflectors	Sun shade Light reflectors
NETWORK & RF SPECIFICATIONS		
Operating Frequency Band	2.4 GHz*	2.4 GHz
Range	5 km LoS with Repeater(s)	5 km LoS with Repeater(s)
Fade Margin	10 dB	10 dB
Minimum Throughput	360 bits/s	250 kbits/s
Encryption	N/A	AES-128 bit
GSM	900 MHz	900 MHz

*Other frequencies available on request

System Specifications

	MODBUS RTU	ISA100.11a
CONTROLLER STATION		
Gas Sensors	Optional H2S, LEL and SO2**	Optional H2S, LEL and SO2**
Maximum Number of Sensors	3	5
GSM	200 contacts for SMS callout	200 contacts for SMS callout
Antenna	3 dBi Omni-directional Fiberglass	3 dBi Omni-directional Fiberglass
Display size	8.4 inch	8.4 inch
Display Resolution	640 x 480 px	640 x 480 px
Visual Alarms	Red/Amber/Blue Strobes Intensity: 175k lumens Flash Rate: 65/min	Red/Amber/Blue Strobes Intensity: 175k lumens Flash Rate: 65/min
Audible Alarms	Type: Siren Intensity: 110 dB @ 1m	Type: Siren Intensity: 110 dB @ 1m
Input Power	110-240 VAC, 50-60 Hz Optional Solar Panel	110-240 VAC, 50-60 Hz Optional Solar Panel
Enclosure Rating	NEMA 4X	NEMA 4X
PERIMETER STATION		
Gas Sensors	Optional H2S, LEL and SO2**	Optional H2S, LEL and SO2**
Maximum Number of Sensors	3	5
Antenna	3 dBi Omni-directional Fiberglass	3 dBi Omni-directional Fiberglass
Visual Alarms	Red/Amber/Blue Strobes Intensity: 175k lumens Flash Rate: 65/min	Red/Amber/Blue Strobes Intensity: 175k lumens Flash Rate: 65/min
Audible Alarms	Type: Siren Intensity: 110 dB @ 1m	Type: Siren Intensity: 110 dB @ 1m
Input Power	Solar Panel with Rechargeable Battery	Solar Panel with Rechargeable Battery
Enclosure Rating	NEMA 4X	NEMA 4X
REPEATER STATION		
Antenna	3 dBi Omni-directional Fiberglass	3 dBi Omni-directional Fiberglass
Input Power	Solar Panel with Rechargeable Battery	Solar Panel with Rechargeable Battery
Enclosure Rating	NEMA 4X	NEMA 4X

**Other sensor types available on request



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