



Sales process for fixed gas detection install

- Distributor contacted RKI with a fixed system install opportunity.
- RKI RSM arranged for a TEAMS meeting with end user, distributor, RKI National Fixed Systems Manager, and herself.
 - Topics discussed (answers are highlighted)
 - Application? Battery manufacturer. Charging areas.
 - Is there an existing system? No
 - What gases need to be detected? Hydrogen
 - What range of detection is needed? 0-100% LEL
 - How many points of detection are needed? 8
 - Layout of facility--provided
 - Vapor density .07—lighter than air
 - Air movement in space static
 - What are the sources of potential gas? Battery stations where charging occurs.
 - Does any of the equipment need to be explosion proof? no
 - If yes, explain what part of the solution, what class, and what division is required?
 - What is the temperature that the sensor will be exposed to? 65-75 degrees Fahrenheit
 - What are the humidity levels that the sensor will be exposed to? 30-50%
 - Does any of the equipment have to be mounted outside? No
 - If yes, explain.
 - Is the preferred sampling method pump or diffusion? diffusion
 - Is wired or wireless preferred? wired
 - Do the transmitters need a display? Yes
 - Do the transmitters need relays? Yes
 - Do the transmitters need to report to one of our central controllers? Yes
 - Yes
 - What needs to happen when there is an alarm detected? Panel needs to alarm and there must be a blue strobe light on each transmitter that activates.
 - What auxiliary equipment must be activated? Blue strobe light
 - Does our controller need to communicate with any other control device (fire panel, SCADA, PLC, etc.) No
 - Yes
 - What signal input does your control device require?
 - No
 - Does the transmitter need to be stand alone or report back to your control device?
 - Your control device
 - What signal input does your control device require?
 - What power can your control device supply to run the

transmitters?

- RKI RSM set up an on-site walk through with the distributor.
 - RKI National Fixed System Manager would connect via Facetime for walk through
- On-site walk through completed and the best solution was discovered.
 - Below is the product list

Part No.	Qty	Description
CONTROLLERS		
72-2108RK	1	Beacon 800, eight channel controller (no sensors)
FIXED HEADS		
65-2641RK-0XB	8	Hydrogen (H2) specific LEL 0-100% sensor (catalytic) / transmitter with j-box, UL version with blue light <i>*Based on 65-2640RK-01 but customer wants Blue lens</i>
ACCESSORIES		
49-0121-10	1	Power supply in 4X housing, 100-240 VAC in / 24 VDC 4.5 amp out
CAL KITS		
81-F004RK-LV	1	Cal kit, fixed, 34L cyl 50% LEL Hydrogen in Air, reg with gauge & knob, cal cup, screwdriver, case & tubing

- RKI National Fixed Systems Manager determined Scope and price for full installation. Below is the Scope.

Labor to install, commission, calibrate, and test complete gas detection system. RKI will also provide training after the installation.

The system consists of 1 Beacon 800 controller, 1 24 VDC power supply, and 8 M2A Hydrogen Specific 0-100% LEL with blue 24 VDC lights.

RKI will mount and run all conduit and wiring that is required.

This price is estimated for three people for 4 days on-site. RKI will use ABC Company's calibration equipment. RKI will absorb all their expenses (hotel, travel, food, etc.) for this price.

All conduit will be 1/2 or 3/4 inch EMT.

The equipment does not have to be explosion proof. The installation does not have to be explosion proof

prool.

RKI's electrician will supply ladders that are required for installation. No lifts will be required.

RKI will run 110 VAC from the power panel to the Beacon 800. ABC Company will provide a 20 amp isolated breaker in the power panel.

110 VAC will be no further than 60 feet from the Beacon 800.

Each M2A will have 5 wire, stranded, 18 gauge conductors, with a shield, connected to the Beacon 800. Each M2A will have a blue light. (3 wires to power and communicate, 2 wires for the 24 VDC blue light)

#1 M2A will be no further than 105 feet from the Beacon 800

#2 M2A will be no further than 125 feet from the Beacon 800

#3 M2A will be no further than 175 feet from the Beacon 800

#4 M2A will be no further than 205 feet from the Beacon 800

#5 M2A will be no further than 115 feet from the Beacon 800

#6 M2A will be no further than 135 feet from the Beacon 800

#7 M2A will be no further than 185 feet from the Beacon 800

#8 M2A will be no further than 215 feet from the Beacon 800

Each blue strobe will be activated by the Beacon 800's individual channel relays.

Facility has drop ceiling with ceiling tiles. Ceiling is 12 feet high.

Facility has sheetrock walls.

Installation and calibration will be performed in Houston Texas.

If any information given to RKI by ABC Company was incorrect, ABC Company may be charged for the additional parts and \$95.00 per hour/per person labor rate to correct the problem.

RKI can work on site 7:00 AM to 5:00 PM Monday through Friday.

ABC Company is responsible for providing a safe work environment.

RKI will be required to attend a 2 hour safety orientation class.

If there are any additional requirements dictated by ABC Company at the time of service, or if there is any additional equipment required to make the system operational, ABC Company may be charged for the additional parts and \$95.00 per hour/per person labor rate.

ABC Company will supply clear access to work areas.

RKI will program the Beacon 800 and the M2A per Schneider Electric requirements.

Thanks,

Clint Anderson

National Fixed Systems Manager
RKI Instruments



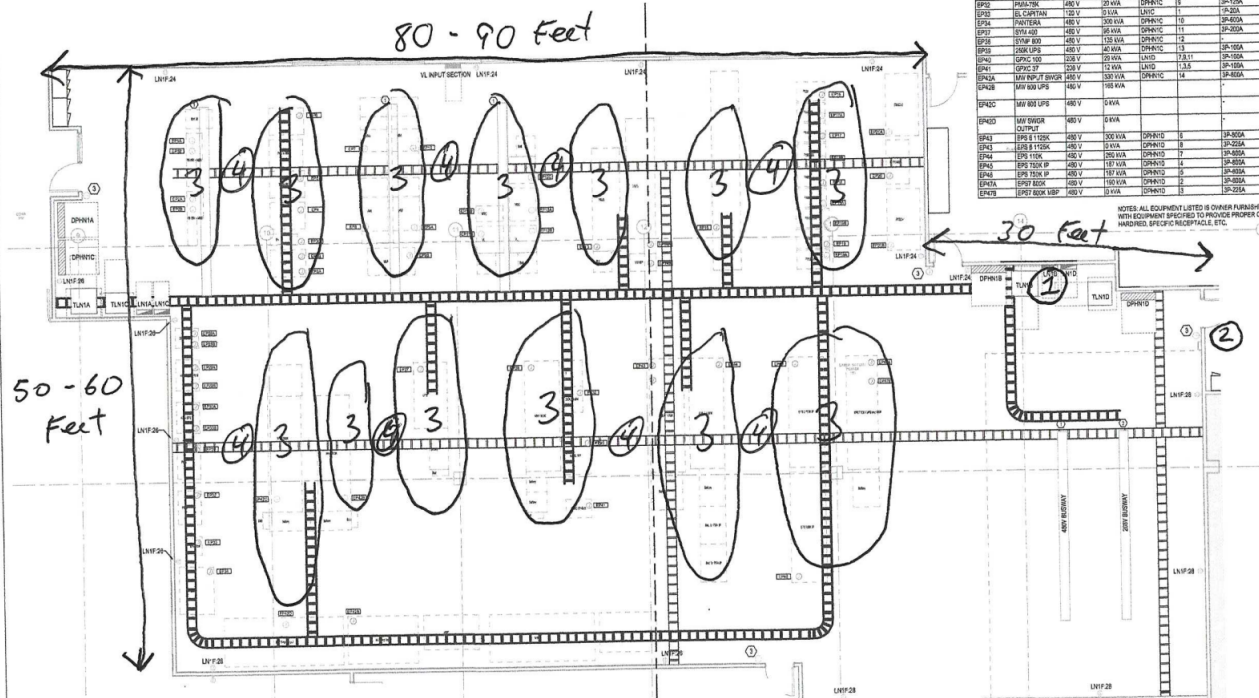
• Below is the layout.

2 = Power Panel
 2 = Beacon 800 Controller
 3 = Batteries
 4 = MZA Locations
 - Beacon 800 - 8 MZA/HZ
 w/ blue strobes

⚡ Ceilings are 12-13 Feet Tall ⚡

SHEET NOTES		SHEET KEYNOTES	
1. REFERENCE SHEET (SHEET) FOR GENERAL NOTES, SYMBOLS AND DIMENSIONS.	2. REFERENCE SHEET (SHEET) FOR SINGLE LINE DIAGRAM WHERE EQUIPMENT SCHEDULED CONFLICTS WITH THE ONE-LINE, REFER TO THE ONE-LINE.	1. PROVIDE 300-100V OVERHEAD BUSWAY IN DISTRIBUTION AREA. BUSWAY SHALL BE MOUNTED BELOW CEILING AT 12'-0" AFF TO BOTTOM OF BUSWAY. PROVIDE MINIMUM 24" LENGTH OF BUSWAY. COORDINATE WITH OWNER FOR EXACT PLACEMENT AND LENGTH OF BUSWAY. COORDINATE WITH OWNER FOR SPECIFIC EQUIPMENT TENSOR.	2. PROVIDE 200-100V OVERHEAD BUSWAY IN DISTRIBUTION AREA. BUSWAY SHALL BE MOUNTED BELOW CEILING AT 12'-0" AFF TO BOTTOM OF BUSWAY. PROVIDE MINIMUM 24" LENGTH OF BUSWAY. COORDINATE WITH OWNER FOR EXACT PLACEMENT AND LENGTH OF BUSWAY. COORDINATE WITH OWNER FOR SPECIFIC EQUIPMENT TENSOR.
3. REFERENCE ESD SERIES SHEET FOR PANELBOARD SCHEDULES.	4. CONTRACTOR SHALL COORDINATE ALL FINAL EQUIPMENT CONNECTIONS WITH EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR INTERCONNECTIONS BETWEEN EQUIPMENT.	3. PROVIDE EMERGENCY POWER OFF (EPO) PUSH BUTTON WITH ALARM AND COVER AT EACH END. UPON ACTIVATION OF EPO, DEACTIVATE THE BREAKER IN THE MAIN SWITCHBOARD. SERVICE THE DISTRIBUTION BRANCH WITHIN THE SPACE (SPINNA, SPINNA, SPINNA) AND. SERVICE EPO SHALL ALSO BE CONNECTED TO OWNER FURNISHED, CONTRACTOR INSTALLED POWER DISTRIBUTION EQUIPMENT (PDS) AND ACTIVE SUPPLY, BATTERY DISCONNECT.	4. CONTRACTOR SHALL PROVIDE 200V CONTROL POWER CIRCUITS TO PIECES OF EQUIPMENT AS REQUIRED FROM 200V PANEL CORRESPONDING TO THE 400V PANEL FEEDING EQUIPMENT. FOR EXAMPLE, EQUIPMENT 112 FROM SPINNA SHOULD HAVE 100V CIRCUIT FROM 112A.
5. CIRCUITS ARE SIZED TO SUPPORT UPS EQUIPMENT CHARGING CURRENTS. UPS SHALL NOT HAVE ANY LOADS CONNECTED. UPS ARE FOR DISTRIBUTION AND TRAINING PURPOSES ONLY.	6. UPS WIRING SHALL BE LIMITED TO 1% CHARGING CURRENT.	5. PROVIDE FLOOR STANDING EQUIPMENT WITH CONCRETE EQUIPMENT (HOLE PER DETAIL 3/25/11).	

Equip. Number	Equip. Description	Voltage	Lead Length	Zone	Panel Number	Breaker (Amps/Type)
EP1A	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1B	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1C	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1D	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1E	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1F	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1G	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1H	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1I	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1J	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1K	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1L	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1M	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1N	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1O	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1P	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1Q	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1R	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1S	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1T	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1U	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1V	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1W	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1X	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1Y	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP1Z	120V 100A MCB	120V	15'0"	1	1P-100A	100
EP2A	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP2B	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP2C	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP2D	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP2E	120V 100A MCB	120V	15'0"	2	1P-100A	100
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EP2X	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP2Y	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP2Z	120V 100A MCB	120V	15'0"	2	1P-100A	100
EP3A	120V 100A MCB	120V	15'0"	3	1P-100A	100
EP3B	120V 100A MCB	120V	15'0"	3	1P-100A	100
EP3C	120V 100A MCB	120V	15'0"	3	1P-100A	100
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EP3Z	120V 100A MCB	120V	15'0"	3	1P-100A	100



NOTES: ALL EQUIPMENT LISTED IS OWNER FURNISHED WITH EQUIPMENT SPECIFIED TO PROVIDE PROPER CIRCULARS. SPECIFIC ACCEPTABLE, ETC.

- Complete solution is presented to the distributor.

Part No.	Qty	Description
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CONTROLLERS

72-2108RK	1	Beacon 800, eight channel controller (no sensors)
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FIXED HEADS

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ACCESSORIES

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CAL KITS

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LABOR OUT

90-T-LABOR	1	Labor and parts to install, commission, calibrate, and test complete gas detection system. RKI will also provide training after the installation. Please see addendum A.
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- The distributor quotes the customer.
- Customer issues PO# to distributor
- Distributor issues PO# to RKI

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