




CLIENT:  NISOC	Development Plan of 28 Reservoirs / BIBI HAKIMEH Oilfield (EPC)								CONTRACTOR:   شرکت مهندسی دریایالا
	Data Sheet for F&G Devices for Bibi Hakimeh Production Unit No.2								
Project No.: 053-073-9189	Project Code BH	Work 17	Vendor Abbreviation SM	Facility 100	Discipline IN	Type DT	Sequence No. 0742	Rev. D00	Page No. : 1 of 26





Data Sheet for F&G Devices for Bibi Hakimeh Production Unit No.2

Rev.	Date	Purpose Of Issue	Prepared	Checked	Approved	Client Approval
D00	02.Nov.2024	Issued for Comment	A.Babalou	B.Yadegari	M.Setayesh	-

Class: A




Status:
 IDC: Inter-Discipline Check
 IFC: Issued For Comment
 IFA: Issued For Approval
 IFR: Issued for Review
 AFD: Approved For Design
 AFC: Approved For Construction
 AFP: Approved For Purchase
 IFI: Issued For Information
 AB-R: As-Built for COMPANY Review
 AB-A: As-Built –Approved


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 NISOC	Development Plan of 28 Reservoirs / BIBI HAKIMEH Oilfield (EPC)								 ماشین سازی ایران MACHINE SAZI IRAN	 ENGINEERING AND WELL SERVICES
	Data Sheet for F&G Devices for Bibi Hakimeh Production Unit No.2									
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General Notes

VTa: Vendor To Advise

VTC: Vendor To Confirm

N/A: Not Applicable





Special Notes

1-All materials exposed to sour service shall be supplied with NACE MR0175/ ISO 15156 certification.

References:



Doc Number	Title
BH-17-SM-100-IN-SP-0053	General Specification for Instrumentation
BH-17-SM-100-IN-SP-0054	Specification for Fire & Gas Sensor and Devices
BH-17-SM-100-IN-SP-0059	Specification for Fire & Gas System
BH-17-SM-100-IN-SP-0060	Specification for Instrument/F&G Cables
BH-17-SM-100-SA-PY-1020	Fire & Gas Detector Location Layout for Bibi Hakimeh Production Unit No.2 (Building)
BH-17-SM-100-SA-PY-1022	Fire & Gas Detector Location Layout for Bibi Hakimeh Production Unit No.2 (Process Area)


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	Data Sheet for F&G Devices for Bibi Hakimeh Production Unit No.2								
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DataSheet for F&G Device of Building Area


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(SMOKE DETECTOR POINT TYPE)										
1	GENERAL	Tag No			P2-SD-02-01 ~11					
2		Total Quantity			11					
3		Service			Area Smoke Detection					
4	SMOKE DETECTOR	Principle of Operation			Optical type					
5		Response Time			≤ 1 Second					
6		Body Material			Flame Retadant Polycarbonate					
7		Connection - Electrical			M20 x 1.5					
8		Power Consumption			≤ 2 W					
9		Mounting			Ceiling Mounted					
10		Output			Addressable					
11		Output Functions			Fault ; Impaired Optics ; Overrange					
12		Power Supply			24 VDC					
13		Type of Protection			VTA					
14		Temperature Range			0 to + 55 °C					
15		Certifying Authority			BASEEFA					
16		Certificate No			VTA					
17		Ingress Protection			IP 65					
18		Area Classification			Safe Area					
19		Hazardous Area Certification			Not Applicable					
20		Paint Finish			Manufacturer's Std.					
21	PURCHASE	Manufacturer			VTA					
22		Model Number			VTA					
23		Purchase Order Number			TBA					
24										
Notes 1. VTA - Vendor to Advise. TBA - To be Assigned. 2. Smoke Detector shall be fitted with stainless steel tags showing tag number. 3. Calibration equipments shall be implemented by vendor 4. Accuracy should be about 100 micron. 5. Remote Light Indicator shall be considered										


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Audible Alarm (Safe Area)											
1	GENERAL	Tag No		P2-BL-02-01 ~ 03							
2		Total (J.Nouri		3							
3		Service		General Area Fire and Gas Alarm Bell							
4	BELL	Power supply		24 VDC							
5		Max Power requirements		VTA							
6		Electrical Connection		M20							
7		Area Classification		Safe Area							
8		Type of Protection		Not Applicable							
9		Fire Retardancy compliance		NFPA 72							
10		Sounder Pressure Level		Min 75 dB(A)							
11		Gong size	Color	6"				RED			
12		Mounting		On the wall							
13		Type		Addressable							
14		Degree of protection		IP 65							
15		Corrosion Free option		Yes							
16		Encasing Material		GRP (Glass reinforced PolYester)							
17		Finish		VTA							
18		Ingress Protection		IP65							
19		Temperature Range		0 to + 55 °C							
20		Humidity		0~100% RH							
21		Unit Mounting		SS316 2" Pipe Mounting Bracket							
22	PURCHASE	Manufacturer		VTA							
23		Model Number		VTA							
24		Purchase Order Number		TBA							
25											

Notes											
1. VTA - Vendor to Advise. TBA - To be Assigned.											
2. Unit shall be fitted with stainless steel tags showing tag number.											




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(LINEAR HEAT DETECTOR)

1	GENERAL	Tag No	P2-LHD-02-01 ~ 02
2		Total Quantity	2
3		Service	Transformer Area
4	LINEAR HEAT DETECTOR	Principle of Operation	Linear Heat Detector
5		Body Material	PVC based polymer with chemical resistant polymer outer sheath (VTC)
6		Connection - Electrical	M20 x 1.5
7		Alarm Temp	88 °C
8		Mounting	On Transformer
9		Length	25 Meter
10		Signal Type	Digital
11		Power Supply	24 VDC
12		Type of Protection	VTA
13		Temperature Range	0 to + 55 °C
14		Certifying Authority	BASEEFA
15		Certificate No	VTA
16		Area Classification	Safe Area
17		Hazardous Area Certification	Not Applicable
18		Ingress Protection	IP54
19		Paint Finish	Manufacturer's Std.
20	PURCHASE	Manufacturer	VTA
21		Model Number	VTA
22		Purchase Order Number	TBA
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Notes

1. VTA - Vendor to Advise. TBA - To be Assigned. VTC - Vendor to Confirm

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(COMBINED SMOKE AND HEAT DETECTOR)

1	GENERAL	Tag No	P2-SHD-02-01
2		Total Quantity	1
3		Service	Combined Smoke & Heat Detection (Rate Of Rise)
4	SMOKE DETECTOR WITH INTEGRAL HEAT DETECTOR	Principle of Operation	Temperature sensitive element and an optical smoke detector
5		Body Material	Polycarbonate
6		Connection - Electrical	M20 x 1.5
7		Power Consumption	≤ 2 W
8		Mounting	Celling Mounted
9		Output	Addressable
10		Output Functions	Fault ;Impaired Optics ;Overrange
11		Power Supply	24 VDC
12		Type of Protection	VTA
13		Temperature Range	0 to + 55 °C
14		Certifying Authority	BASEEFA
15		Certificate No	VTA
16		Area Classification	Zone1 IIC T3
17		Ingress Protection	IP54
18		Hazardous Area Certification	Intrinsically Safe Eexia with Isolator
19		Paint Finish	Manufacturer's Std.
20	PURCHASE	Manufacturer	VTA
21		Model Number	VTA
22		Purchase Order Number	TBA
23			


Notes




1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Smoke And Heat Detector shall be fitted with stainless steel tags showing tag number.
3. Hazardous area classification of equipment installed in Battery room shall be Zone1 IIC T3.
4. Calibration equipments shall be implemented by vendor


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(HYDROGEN GAS DETECTOR)			
1	GENERAL	Tag No	P2-HGD-02-01
2		Total Quantity	1
3		Service	H2 Gas Detection
4		Expected Sensor Life	VTA
5	GAS DETECTOR	Principle of Operation	Catalytic Type
6		Type	VTA
7		Response Time	T 90 < 10 seconds
8		Body Material	Cast Aluminum
13		Temperature Range	-4 to +52°C
9		Range	0 to 100 % LEL
10		Accuracy	3% FSD
11		Connection - Electrical	3 WIRE , M20 x1.5
12		Power Consumption	VTA
13		Local Indication	Yes
14		Mounting	SS316 2" Pipe Mounting Bracket
15		Output	4- 20 mA/ 2 SPDT Contact
16		Output Functions	VTA
17		Power Supply	24 V DC
18		Ingress Protection	IP 54
19		Temperature Range	0 to + 55 °C
20		Certifying Authority	ATEX
21		Certificate No	VTA
22		Area Classification	Zone1 IIC T3
23		Hazardous Area Certification	EE'x'de'
24	Paint Finish	Manufacturer's Std.	
25	Repeatability	±1% LEL full scale	
26	Fault Signals	Less than 1 mA output indicates Fault Condition(VTC)	
27	Sun Shade	N/A	
28	PURCHASE	Manufacturer	VTA
29		Model Number	VTA
30		Purchase Order Number	TBA
31			


Notes 1. VTA - Vendor to Advise. TBA - To be Assigned. VTC - Vendor To Confirm. N/A Not Applicable 2. Gas Detector shall be fitted with stainless steel tags showing tag number. 3. Calibration equipments shall be implemented by vendor		 ATRIN RAD MEHR سهامی خاص شماره ثبت: ۴۱۴۵۵۰
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Yellow Flashing/ Beacon (Gas) For Safe Area			
1	GENERAL	Tag No	P2-RG-02-01 ~ 02
2		Total Quantity	2
3		Service	Building Area Fire and Gas Visual Alarm
4	BEACON	Type	Xenon self-contained Flashing Beacon
5		Tube energy	30 Joules
6		Peak Candlepower	VTA
7		Power supply	24 VDC
8		Max Power requirements	VTA
9		Electrical Connection	M20 x 1.5
10		Area Classification	Safe Area
11		Type of Protection	Not Applicable
12		Lens Guard	Yes
13		Number of cable entries	1
14		Monitored Connection Option	Yes
15		Additional Features	Duty and tag Label
16		Light Source Version	XENON
17		Lens Flash Rate	60 Hz
18		Lens Colour	Yellow
19		Lens Material	Glass
20		Ingress Protection	IP65
21		Output	10 Joules
22		Corrosion Free option	Yes
23		Encasing Material	GRP (Glass reinforced PolYester)
24		Finish	VTA
25		Temperature Range	0 to + 55 °C
26		Humidity	0~100% RH
27		Type of Protection	IP 65
28	Unit Mounting	SS316 2" Pipe Mounting Bracket	
29	PURCHASE	Manufacturer	VTA
30		Model Number	VTA
31		Purchase Order Number	TBA

Notes

- VTA - Vendor to Advise. TBA - To be Assigned.
- Unit shall be fitted with stainless steel tags showing tag number.
- Visual alarms shall be of the Xenon self-contained flashing beacon type, with 360 degrees of vision. The lens shall be manufactured from impact resistant polycarbonate or toughened glass


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Red Flashing/ Beacon (Fire) For Safe Area

1	GENERAL	Tag No	P2-RF-02-01~02
2		Total Quantity	2
3		Service	Open Area
4	BEACON	Type	Xenon self-contained Flashing Beacon
5		Tube energy	30 Joules
6		Peak Candle power	VTA
7		Power supply	24 VDC
8		Max Power requirements	VTA
9		Electrical Connection	M20 x 1.5
10		Area Classification	Safe Area
11		Type of Protection	Not Applicable
12		Lens Guard	Yes
13		Number of cable entries	1
14		Monitored Connection Option	Yes
15		Additional Features	Duty and tag Label
16		Light Source Version	XENON
17		Lens Flash Rate	60 Hz
18		Lens Colour	RED
19		Lens Material	Glass With guard
20		Output	10 Joules
21		Corrosion Free option	Yes
22		Encasing Material	GRP (Glass reinforced Polyester)
23		Finish	VTA
24		Temperature Range	0 to + 55 °C
25		Humidity	0~100% RH
26		Ingress Protection	IP 65
27		Unit Mounting	SS316 2" Pipe Mounting Bracket
28	PURCHASE	Manufacturer	VTA
29		Model Number	VTA
30		Purchase Order Number	TBA

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.


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Red Flashing/ Beacon (Fire) For Safe Area

1	GENERAL	Tag No	P2-RF-02-03~005
2		Total Quantity	3
3		Service	Buildin Area
4	BEACON	Type	Xenon self-contained Flashing Beacon
5		Tube energy	30 Joules
6		Peak Candle power	VTA
7		Power supply	24 VDC
8		Max Power requirements	VTA
9		Electrical Connection	M20 x 1.5
10		Area Classification	Safe Area
11		Type of Protection	Not Applicable
12		Lens Guard	Yes
13		Number of cable entries	1
14		Monitored Connection Option	Yes
15		Additional Features	Duty and tag Label
16		Light Source Version	XENON
17		Lens Flash Rate	60 Hz
18		Lens Colour	RED
19		Lens Material	Glass With guard
20		Output	10 Joules
21		Corrosion Free option	Yes
22		Encasing Material	GRP (Glass reinforced PolYester)
23		Finish	VTA
24	Temperature Range	0 to + 55 °C	
25	Humidity	0~100% RH	
26	Ingress Protection	IP 65	
27	Unit Mounting	SS316 2" Pipe Mounting Bracket	
28	PURCHASE	Manufacturer	VTA
29		Model Number	VTA
30		Purchase Order Number	TBA

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.


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(Manual Alarm Call Point Weather Proof-Outdoor)

1	GENERAL	Tag No	P2-MCP-02-01~06
2		Total Quantity	6
3		Service	Building(Outdoor and Indoor) Area
4	Manual Alarm Call Point	Style	Break Glass
5		Body Material	GRP (Glass reinforce Polyester)
6		Addressable	Yes
7		Voltage	24 VDC
8		Connection - Electrical	2 x M20 x 1.5
9		Contact Rating	DC :0-30V 5A(Resistive) or 3A (Inductive)
10		Contact Style	1xSPDT
11		Mounting	Surface Mounting
12		EOL Resistor value	VTA
13		In line resistor value	VTA
14		Certifying Authority	ATEX
15		Certificate No	VTA
16		Area Classification	Safe Area
17		Hazardous Area Certification	Not Applicable
17		Ingress Protection	IP65
18		Paint Finish	Red
19		Temperature Range	0 to + 55 °C
20		Humidity	0~100% RH
20		Degree of Protection	IP 65
21	PURCHASE	Manufacturer	VTA
22		Model Number	VTA
23		Purchase Order Number	TBA

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. MAC shall be fitted with stainless steel tag showing tag number.
3. EOL and In line resistors to be fitted by vendor.
4. Mounting set and Weather-proof Covered shall be supplied by vendor.
5. MCP shall be Automatic self-resetting type and Resettable push-button.


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Audible Alarm (Safe Area)

1	GENERAL	Tag No	P2-HOR-02-01 ~ 02
2		Total (J.Nouri	2
3		Service	General Area Fire and Gas Audible Alarm
4	AUDIBLE ALARM	Power supply	24 VDC
5		Max Power requirements	VTA
6		Electrical Connection	M20
7		Area Classification	Safe Area
8		Type of Protection	Not Applicable
9		Fire Retardancy compliance	NFPA 72
10		Rating	100 dB(A)
11		Additional Features	Duty and tag Label
12		Mounting	Surface
13		Tone Set	Multi Tone, DIL Switches
14		Ingress Protection	IP 65
15		Corrosion Free option	Yes
16		Encasing Material	GRP (Glass reinforced PolYester)
17		Finish	VTA
18		Stage Number	2 Stage
19	PURCHASE	Temperature Range	0 to + 55 °C
20		Humidity	0~100% RH
21		Unit Mounting	SS316 2" Pipe Mounting Bracket
22		Manufacturer	VTA
23		Model Number	VTA
24		Purchase Order Number	TBA
25			




Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.
3. Sounder Tone Specification:
Fire Detection:
 - Continuous tone alarm 500 HZ frequency
 Combustible Gas Detection
 - Intermittent tone alarm 500 HZ frequency with one second interruption


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DataSheet for F&G Device of Process Area

<div>CLIENT:</div> <div></div> <div>NISOC</div>	<div>Development Plan of 28 Reservoirs / BIBI HAKIMEH Oilfield (EPC)</div>								<div>CONTRACTOR:</div> <div> </div>
	<div>Data Sheet for F&G Devices for Bibi Hakimeh Production Unit No.2</div>								
<div>Project No.:</div> <div>053-073-9189</div>	<div>Project Code</div> <div>BH</div>	<div>Work</div> <div>17</div>	<div>Vendor Abbreviation</div> <div>SM</div>	<div>Facility</div> <div>100</div>	<div>Discipline</div> <div>IN</div>	<div>Type</div> <div>DT</div>	<div>Sequence No.</div> <div>0742</div>	<div>Rev.</div> <div>D00</div>	<div>Page No. : 16 of 26</div>




(UV/IR TYPE FLAME DETECTOR)

1	GENERAL	Tag No	PU2-FD-01-01~28
2		Total Quantity	28
3		Service	Area Flame Detection
4	FLAME DETECTOR	Principle of Operation	UV/IR
5		Response Time	5 Sec
6		Range	0.1 m ² fire at 15 meter
7		Body Material	Cast Aluminum
8		Optics	VTA
9		Connection - Electrical	3 WIRE , M20 x 1.5
10		Power Consumption	VTA
11		Mounting	SS316, 2 " Pipe Mounting Bracket with Swivel Adaptor
12		Output	-
13			4 - 20mA
14		Output Functions	VTA
15		Power Supply	24 VDC
16		Ingress Protection	IP 65
17		Cone of Vision (Field of view)	120 ° Horizontal, 90 ° Vertical
18		Humidity	0~100% RH
19		Temperature Range	-2 to +58°C
20		Certifying Authority	ATEX
21	PURCHASE	Certificate No	VTA
22		Area Classification	ZONE 2, GAS GROUP IIB, T3
23		Hazardous Area Certification	EEx 'd'
24		Paint Finish	Manufacturer's Std.
25	PURCHASE	Cleaning System	VTA
26		Sun Shade	YES
27		Manufacturer	VTA
28		Model Number	VTA
29	PURCHASE	Purchase Order Number	TBA
31			

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Flame Detector shall be fitted with stainless steel tags showing tag number.
3. Calibration equipments shall be implemented by vendor



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Yellow Flashing / Beacon (Gas)				
1	GENERAL	Tag No	PU2-RG-01-01 ~ 07	
2		Total Quantity	7	
3		Service	General Area Fire and Gas Visual Alarm	
4	BEACON	Type	Xenon self-contained Flashing Beacon	
5		Tube energy	30 Joules	
6		Peak Candlepower	VTA	
7		Power supply	24 VDC	
8		Max Power requirements	VTA	
9		Electrical Connection	M20 x 1.5	
10		Area Classification	Zone 2,IIA, T3	
11		Type of Protection	EEx 'd'	
12		Lens Guard	Yes	
13		Number of cable entries	1	
14		Monitored Connection Option	Yes	
15		Additional Features	Duty and tag Label	
16		Light Source Version	XENON	
17		Lens Flash Rate	60 Hz	
18		Lens Colour	Yellow	
19		Lens Material	Glass	
20		Output	30 Joules	
21		Corrosion Free option	Yes	
22		Encasing Material	Cast Aluminum	
23		Finish	VTA	
24		Temperature Range	-2 to +85°C	
20		Humidity	0~100% RH	
25		Ingress Protection	IP 65	
26		Area Classification	ZONE 2,GAS GROUP IIB, T3	
27		Unit Mounting	SS316 2" Pipe Mounting Bracket	
28		PURCHASE	Manufacturer	VTA
29			Model Number	VTA
30	Purchase Order Number		TBA	

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.
3. Visual alarms shall be of the Xenon self-contained flashing beacon type, with 360 degrees of vision. The lens shall be manufactured from impact resistant polycarbonate or toughened glass



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Red Flashing / Beacon (Fire)			
1	GENERAL	Tag No	PU2-RF-01-01 ~ 07
2		Total Quantity	7
3		Service	General Area Fire and Gas Visual Alarm
4	BEACON	Type	Xenon self-contained Flashing Beacon
5		Tube energy	30 Joules
6		Peak Candle power	VTA
7		Power supply	24 VDC
8		Max Power requirements	VTA
9		Electrical Connection	M20 x 1.5
10		Area Classification	Zone 2,IIB, T3
11		Type of Protection	EEx 'd'
12		Lens Guard	Yes
13		Number of cable entries	1
14		Monitored Connection Option	Yes
15		Additional Features	Duty and tag Label
16		Light Source Version	XENON
17		Lens Flash Rate	60 Hz
18		Lens Colour	RED
19		Lens Material	Glass with guard
20		Output	30 Joules
21		Corrosion Free option	Yes
22		Encasing Material	Cast Aluminum
23		Finish	VTA
24		Temperature Range	-2 to +85°C
20		Humidity	0~100% RH
25		Ingress Protection	IP 65
26		Area Classification	ZONE 2,GAS GROUP IIB, T3
27	Unit Mounting	SS316 2" Pipe Mounting Bracket	
28	PURCHASE	Manufacturer	VTA
29		Model Number	VTA
30		Purchase Order Number	TBA

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.
3. Visual alarms shall be of the Xenon self-contained flashing beacon type, with 360 degrees of vision. The lens shall be manufactured from impact resistant polycarbonate or toughened glass



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Blue Flashing / Beacon (Toxic)				
1	GENERAL	Tag No	PU2-RT-01-01 ~07	
2		Total Quantity	7	
3		Service	General Area Fire and Gas Visual Alarm	
4	BEACON	Type	Xenon self-contained Flashing Beacon	
5		Tube energy	30 Joules	
6		Peak Candlepower	VTA	
7		Power supply	24 VDC	
8		Max Power requirements	VTA	
9		Electrical Connection	M20 x 1.5	
10		Area Classification	Zone 2,IIB, T3	
11		Type of Protection	EX 'd'	
12		Lens Guard	Yes	
13		Number of cable entries	1	
14		Monitored Connection Option	Yes	
15		Additional Features	Duty and tag Label	
16		Light Source Version	XENON	
17		Lens Flash Rate	60 Hz	
18		Lens Colour	BLUE	
19		Lens Material	Glass with guard	
20		Output	30 Joules	
21		Corrosion Free option	Yes	
22		Encasing Material	Cast Aluminum	
23		Finish	VTA	
24		Temperature Range	-2 to +85°C	
20		Humidity	0~100% RH	
25		Ingress Protection	IP 65	
26		Area Classification	ZONE 2,GAS GROUP IIB, T3	
27		Unit Mounting	SS316 2" Pipe Mounting Bracket	
28		PURCHASE	Manufacturer	VTA
29			Model Number	VTA
30	Purchase Order Number		TBA	

Notes




1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.
3. Visual alarms shall be of the Xenon self-contained flashing beacon type, with 360 degrees of vision. The lens shall be manufactured from impact resistant polycarbonate or toughened glass


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(Manual Alarm Call Point)			
1	GENERAL	Tag No	PU2-MCP-01-01 ~11
2		Total Quantity	11
3		Service	Manual Alarm Call Point-Resetable
4	Manual Alarm Call Point	Style	Break Glass
5		Body Material	Cast Aluminum
6		Addressable	No
7		Voltage	24 VDC
8		Connection - Electrical	2 x M20 x 1.5
9		Contact Rating	DC :0-30V 5A(Resistive) or 3A (Inductive)
10		Contact Style	1xSPDT
11		Mounting	Surface Mounting
12		EOL Resistor value	VTA
13		In line resistor value	VTA
14		Certifying Authority	ATEX
15		Certificate No	VTA
16		Area Classification	ZONE 2,GAS GROUP IIB, T3
17		Hazardous Area Certification	EEx 'd'
18		Paint Finish	Red
19		Temperature Range	-2 to +85°C
20		Ingress Protection	IP 65
21	PURCHASE	Manufacturer	VTA
22		Model Number	VTA
23		Purchase Order Number	TBA

Notes 1. VTA - Vendor to Advise. TBA - To be Assigned. 2. MAC shall be fitted with stainless steel tag showing tag number. 3. EOL and In line resistors to be fitted by vendor.	
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Audible Alarm (2 Tone)

1	GENERAL	Tag No	PU2-HOR-01-01 ~ 7
2		Total C.J.Nouri	7
3		Service	General Area Fire and Gas Audible Alarm
4	AUDIBLE ALARM	Power supply	24 VDC
5		Max Power requirements	VTA
6		Electrical Connection	M20
7		Area Classification	ZONE 2,IIA, T3
8		Type of Protection	EEx 'd'
9		Fire Retardancy compliance	NFPA 72
10		Rating	110dB(A)
11		Additional Features	Duty and tag Label
12		Mounting	Surface
13		Tone Set	Multi Tone, DIL Switches
14		Ingress Protection	IP 65
15		Corrosion Free option	Yes
16		Encasing Material	Cast Aluminum
17		Finish	VTA
18	PURCHASE	Stage Number	2 Stage
19		Temperature Range	-2 to +58°C
20		Humidity	0~100% RH
21		Area Classification	ZONE 2,GAS GROUP IIB, T3
22		Unit Mounting	SS316 2" Pipe Mounting Bracket
23		Manufacturer	VTA
24		Model Number	VTA
25		Purchase Order Number	TBA
26			

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned.
2. Unit shall be fitted with stainless steel tags showing tag number.
3. Sounder Tone Specification:
Fire Detection:
• Continuous tone alarm 500 HZ frequency
Combustible Gas Detection
• Intermittent tone alarm 500 HZ frequency with one second interruption
20% LEL Flammable Gas Detection: Intermittent tone alarm 1000 HZ frequency with one second interruption
• 50% LEL Flammable Gas Detection: Continuous tone alarm 500 HZ frequency
Toxic Gas Detection:
• Blue Flashing Light
• 10 ppm H2S: Intermittent tone alarm 500 HZ frequency with one second interruption
• 20 ppm H2S: Continuous tone alarm 500 HZ frequency




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(LINEAR HEAT DETECTOR)			
1	GENERAL	Tag No	PU2-LHD-01-03
2		Total Quantity	1
3		Service	Production Tank
4	LINEAR HEAT DETECTOR	Principle of Operation	Linear Heat Detector
5		Body Material	PVC based polymer with chemical resistant polymer outer sheath (VTC)
6		Connection - Electrical	M20 x 1.5
7		Alarm Temp	88 °C
8		Mounting	On Tank
9		Length	55 Meter
10		Signal Type	Digital
11		Power Supply	24 VDC
12		Type of Protection	VTA
13		Temperature Range	0 to + 55 °C
14		Certifying Authority	BASEEFA
15		Certificate No	VTA
16		Area Classification	ZONE 2,GAS GROUP IIB, T3
17		Hazardous Area Certification	Not Applicable
18		Ingress Protection	IP 65
19		Paint Finish	Manufacturer's Std.
20	PURCHASE	Manufacturer	VTA
21		Model Number	VTA
22		Purchase Order Number	TBA
23			

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned. VTC - Vendor to Confirm


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(LINEAR HEAT DETECTOR)

1	GENERAL	Tag No	PU2-LHD-01-02
2		Total Quantity	1
3		Service	Existing test Tank
4	LINEAR HEAT DETECTOR	Principle of Operation	Linear Heat Detector
5		Body Material	PVC based polymer with chemical resistant polymer outer sheath (VTC)
6		Connection - Electrical	M20 x 1.5
7		Alarm Temp	88 °C
8		Mounting	On Tanks
9		Length	35 Meter
10		Signal Type	Digital
11		Power Supply	24 VDC
12		Type of Protection	VTA
13		Temperature Range	0 to + 55 °C
14		Certifying Authority	BASEEFA
15		Certificate No	VTA
16		Area Classification	ZONE 2,GAS GROUP IIB, T3
17		Hazardous Area Certification	Not Applicable
18		Ingress Protection	IP 65
19		Paint Finish	Manufacturer's Std.
20	PURCHASE	Manufacturer	VTA
21		Model Number	VTA
22		Purchase Order Number	TBA
23			

Notes

1. VTA - Vendor to Advise. TBA - To be Assigned. VTC - Vendor to Confirm


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(LINEAR HEAT DETECTOR)		
1	GENERAL	Tag No
2		Total Quantity
3		Service
4	LINEAR HEAT DETECTOR	Principle of Operation
5		Body Material
6		Connection - Electrical
7		Alarm Temp
8		Mounting
9		Length
10		Signal Type
11		Power Supply
12		Type of Protection
13		Temperature Range
14		Certifying Authority
15		Certificate No
16		Area Classification
17		Hazardous Area Certification
18		Ingress Protection
19		Paint Finish
20	PURCHASE	Manufacturer
21		Model Number
22		Purchase Order Number
23		


Notes




1. VTA - Vendor to Advise. TBA - To be Assigned. VTC - Vendor to Confirm


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(TOXIC POINT GAS DETECTORS)			
1	GENERAL	Tag No	PU2-TGD-01-01 ~ 16
2		Total Quantity	16
3		Service	H ₂ S Detection
4		Expected Sensor Life	VTA
5	GAS DETECTOR	Principle of Operation	Catalytic Gas Detector
6		Type	VTA
7		Response Time	T 90 < 20 seconds
8		Body Material	Cast Aluminum
9		Range	0 to 50 ppm H ₂ S
10		Accuracy	1 ppm or better
11		Connection - Electrical	3 WIRE , M20 x1.5
12		Power Consumption	VTA
13		Local Indication	YES
14		Mounting	SS316 2" Pipe Mounting Bracket
15		Output	4- 20 mA
16		Output Functions	VTA
17		Power Supply	24 V DC
18		Ingress Protection	IP65
19		Temperature Range	-2 to +58°C
20		Humidity	0~100% RH
21		Certifying Authority	ATEX
22		Certificate No	VTA
23		Area Classification	ZONE 2, GAS GROUP IIB, T3
24		Hazardous Area Certification	Exd,IIC ,T6
25		Paint Finish	Manufacturer's Std.
26		Repeatability	±2% of full scale
27		Fault Signals	Less than 1 mA output indicates Fault Condition(VTC)
28		Sun Shade	Yes
29	PURCHASE	Manufacturer	VTA
30		Model Number	VTA
31		Purchase Order Number	TBA
32			

Notes 1. VTA - Vendor to Advise. TBA - To be Assigned. VTC - Vendor To Confirm 2. Gas Detector shall be fitted with stainless steel tags showing tag number. 3. Calibration equipments shall be implemented by vendor 4. LED for Alarm, Pre Alarm and Fault shall be considered		 ATRIN RAD MEHR سهامی خاص شماره ثبت: ۴۱۴۵۵۰
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(Combustible Gas Detectors)			
1	GENERAL	Tag No	PU2-FGD-01-01 ~17
2		Total Quantity	17
3		Service	IR principle
4		Composition	CH4
5		Principle of Operation	Infrared Absorption
6	GAS DETECTOR	Type	IR principle
7		Response Time	T 90 < 20 seconds
8		Path Length	Not Applicable
9		Body Material	Cast Aluminum
10		Range / Accuracy	0 - 100% LEL / 1% LEL
11		Optics	VTA
12		Connection - Electrical	3 Wire , M20 x 1.5
13		Power Consumption	VTA
14		Mounting	SS316 2" Pipe Mounting Bracket
15		Output	4 - 20mA = 0 - 100% LEL
16		Output Functions	VTA
17		Power Supply	10 to 32 Vdc
18		Ingress Protection	IP 65
19		Temperature Range	-2 to +58°C
20		Humidity	0~100% RH
21		Certifying Authority	ATEX
22		Certificate No	VTA
23		PURCHASE	Area Classification
24	Hazardous Area Certification		EEx 'd'
25	Sun Shade		Yes
26	Paint Finish		Manufacturer's Std.
27	Manufacturer	VTA	
28	Model Number	VTA	
29	Purchase Order Number	TBA	
30			

Notes	
1. VTA - Vendor to Advise. TBA - To be Assign. 2. Gas Detector shall be fitted with stainless steel tags showing tag number. 3. LED for Alarm, Pre Alarm and Fault shall be considered	



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