

Detecting Hazardous Gas Leaks in Oil Refineries and Petrochemical Plants

Overview:

When Oil is refined and Petroleum or Natural gas is converted into Petrochemicals. Several combustible, harmful and deadly gases are produced..

Detecting leaks of these gases and monitoring gas concentrations in hazardous areas is extremely important. Accurate and reliable Gas detection is therefore a critical factor in protecting people and property in both Refineries and Petrochemical plants

The Solution :

The Riken Keiki 1000 series are Portable single gas detectors for combustible gases

A safety rating of Exia II CT4 allows users to detect a gas at hazardous area Zone 0 where an explosion hazard always exists. Calibration is to one gas only (Methane or ISO-Butane), then any one of 25 target gases (5 for the NP-1000) can be selected by a simple button operation (see list overleaf)

The 1000 Series is ideal for checking gas leaks or monitoring the presence of combustible gases in hazardous areas typically found in oil refineries and petrochemical plants.



Key Features :

- Probe and Teflon Tube as standard
- LEL , PPM and % Vol versions
- Datalogger available
- Direct reading of 25 Target Gases (5 for NP-1000)
- Pump boost (for use with long sample lines)
- IP67 Ingress rating
- Intrinsically Safe, ATEX approved for Hazardous Areas
- Optional probe filters for H2S and Silicone removal

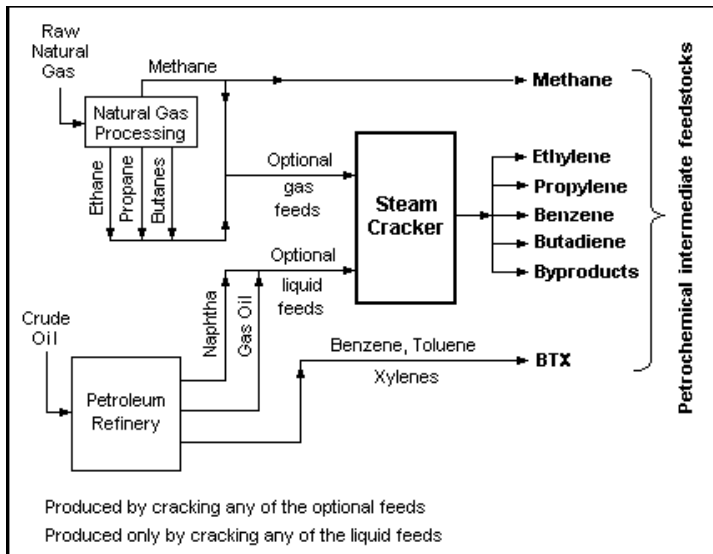


Diagram source mbeychok





Riken Keiki 1000 Series Gas Lists

GP-1000 (LEL Range) , NC-1000 (ppm Range) :

No.	Gas list	Name indicated on LCD	Lower explosion limit LEL
1	Methane	CH4	5.0vol%
2	Isobutane	i-C4H10	1.8vol%
3	Hydrogen	H2	4.0vol%
4	Methanol	CH3OH	5.5vol%
5	Acetylene	C2H2	1.5vol%
6	Etylene	C2H4	2.7vol%
7	Ethane	C2H6	3.0vol%
8	Ethanol	C2H5OH	3.3vol%
9	Propylene	C3H6	2.0vol%
10	Acetone	C3H6O	2.15vol%
11	Propane	C3H8	2.0vol%
12	Butadiene	C4H6	1.1vol%
13	Cyclopentane	C5H10	1.4vol%
14	Benzene	C6H6	1.2vol%
15	n -Hexane	n-C6H14	1.2vol%
16	Toluene	C7H8	1.2vol%
17	Heptane	n-C7H16	1.1vol%
18	Xylene	C8H10	1.0vol%
19	Ethyl acetate	EtAc	2.1vol%
20	IPA	IPA	2.0vol%
21	MEK	MEK	1.8vol%
22	Methyl methacrylate	MAA	1.7vol%
23	Dimethylether	DME	3.0vol%
24	Methyl isobutyl ketone	MIBK	1.2vol%
25	Tetrahydrofuran	THF	2.0vol%

NP-1000 (% Vol Range) :

No.	Gas list	Name indicated on LCD
1	Methane	CH4
2	Propane	C3H8
3	Isobutane	i-C4H10
4	Argon	Ar
5	Helium	He
*	Hydrogen	H2

Base Gases for NP-1000

No.	Gas list	Name indicated on LCD
1	Air	Air
2	Nitrogen	N2
3	Carbon Dioxide	CO2

* The NP-1000-H2 is a version for measuring H2 Only