Gas Detection Systems

Prism

GAS EQUIPMENTS

ABOUT PRISM

PRISM GAS EQUIPMENTS is committed to provide all types of Gas Equipments to be used in Residential, Industrial, Onshore, Offshore uses which meet all international Standards.

Our Gas detection systems, Gas meters, Gas Valves and a complete range of products used in gas industry are pioneered through our innovative products, our services and reliability beside our commitment and technical approach.

PRISM products rely heavily on field user feedback to improve and introduce for you the latest products.

At prism, Products are always application-driven and solution-oriented

Whether for a single application, or to encompass multiple rooms and areas, our fixed-point monitoring solutions are developed to meet the individual needs of our customers. In fact, when you contact us for information about our fixed systems, chances are we will ask you a lot more questions than you will ask us:

- What are the type of gases do you need to monitor?
- What are other background gases may be present in the area you are monitoring?
- What is the size of the area being monitored?
- Where do you expect to experience a problem?
- What is the typical air flow direction in the area to be monitored?

At PRISM, application oriented solutions are our Goals for every product we sell. Need the best solution for your application? Our customer Service representatives will take the time to answer all of your questions…and ask the right ones.

Gas Detection Systems
KB200N

1. GAS MONITORING SYSTEM
1 ZONE TO 30 ZONES

TECHNICAL DATA

Principal	Bus Structure 4 Bus
Detection Gas	Combustible Gas, CO, H2S, O2
Detection Range	0-100% LEL, 0-5000ppm
Response Time	<30 sec
Resume Time	<60 sec
Alarm Setting	1st Level adjustable till 50% LEL
System Model	KB200N
	2nd Level adjustable till 70% LEL
	One ventilation Level adjustable till 50% LEL
Alarm Way	Audio and Visual warning
Sound Level	<75 db (Built in Buzzer)
Alarm Signal	3 Channel Potential Free Contact AC 220V 3A
Working Temp	-10 C to 40 C < 90 Condensation
Protection Degree	IP 44
Power Supply	AC 220 V 50 Hz
Distance	1000m at 2 mm Copper wires
Size	45cm 25cm 10cm 10 kg
Detector	Catalytic Sensor
Model TC100N	Power DC 12 V or 24 V 100mA
	Protection Degree: EX d11CT6 and IP65 -40° C to 60° C
	No Condensation
Signal Carrier	DC 12 V or DC 24 V 50 mA
Model CONO1	Potential free Contact AC 220V 5A
	Protection Degree: EX d11CT6 and IP65 -40° C to 60° C
	No Condensation

KB200N is specifically designed for use in area where the concentration of gas level in the air can increase considerably, such as Gas Tank Storage Area, Gas Plants, Storage facilities, refineries, natural gas processing, pipeline pump and compressor stations where the chance of gas leaks are high.

KB200N can be used for different types of gas applications by changing different types of gas sensor heads- Combustible gas, Carbon monoxide, H2S, and O2.
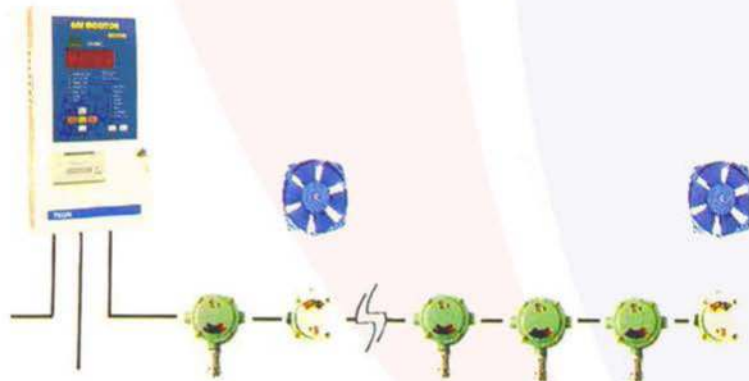
KB200N controller panel can use up to 30 Nos gas detector/ signal output.

This system uses a 4 bus system which makes the installation easy with its gas detectors, transmitter, and signal out put controller. When the gas leak reaches or exceeds the preset point which is adjustable the panel gives you audio, visual and volt free contact or controllers which can control various safety devices.

Some Features of KB200N

Accurate Sensor
4 Bus Structure
Long Distance Monitoring
High Sensitivity and fast response
Battery Backup operation
Real Time Report printing (Optional)

Schematic Diagram of Gas Detector Connection

SYSTEM/NETWORK

KB200N system panel combined with TC 100N detector, signal controller CONO1 and bus Structure makes a complete system .This system can connect up to 30 Detectors TC100N or signal carrier and its maximum transferring distance is 1000m (2mm² Copper Wire). This can finalize 30 Nos contacts level indication in turn, locked channel indication, alarming level, Detector Fault Indication, etc. This monitor has two alarming level setting, one ventilation level, fault alarm and auxiliary relays.

PANEL AND OPERATION

Green Seven Segment Display   Shows Channel No active on display (CHANNEL)

Red Seven Segment Display   Present gas concentration (GAS LEVEL)
LED steady :   In detection mode
LED flashing :   In set up mode

LED Status Indication

1) Main Power/Back up Power
   Green LED, System Powered by AC 220V
   Red LED, System Powered by Back up Batteries.
2) Main Power in low voltage: Yellow LED too lowAC220V
3) Charging Fault: Yellow LED, Charger circuit fault
4) Back up Power fault: Yellow LED Back up Battery fault.
5) Sensor fault: Yellow LED Detector/panel fault.
6) Alarm: Red LED Flashing, Excessive Gas Concentration.
7) Ventilation: Red LED Flashing, Ventilation Relay On

Gas Detector GD-P201

Introduction

GD-P201 Gas leak alarm is a kind of wall-hung household gas alarm designed to detect the concentration of combustible and toxic gases or vapours. It provide a visual and audible signals when the gas concentration reaches presetting level, remind you take prompt favourable action , you may start up other link equipment, ventilate gas or shut off gas supply to avoid Fire, explosion, suffocation, and other evil accident. The alarms are available for liquefied petroleum gas (LPG), natural gas (Methane), propane, town gas etc. They are not only installed at home, but also used at any other potentially hazardous areas.

MCU control, Reliable without false alarming
Locale sound and light alarming，
Drive Long-distance Alarming System
Ventilate good air circulation or shut off gas supply link equipment.

Operating Manual

1. Fix gas alarm on the wall or Roof near the gas cooker or other sources within 2-4 m interval. According to gas sources Character, Choose alarm location as follows:
- LPG: Fix it within 0.3 meters above the ground (LPG is heavier than Air)
- Coal Gas, Natural Gas: Fix it within 0.3 meters below the Roof. (Natural gas is lighter than Air)
- Avoid such installation: Near windows with strong wind, Exit areas, wet area, high temp area near oven, etc

2. Connect the Power supply, (If ventilation fan, electro magnetic valve or other auxiliary equipment, required to be connected connect corresponding circuit.)
Connect with 220V AC power, green LED indicating power and WARM-UP yellow LED will be on, after 60 secs of warm up period detector will move in Normal mode (Detecting mode)

3. If the flammable gas in the air reaches the preset alarming concentration, the gas detector enters into alarming status and audio visual alarm will be given Red Led will be flashing and high pitch buzzer will be activated, at the same time auxiliary relays will be activated thus shutting off any auxiliary devices connected such as solenoid valves, fans etc.

If the yellow (Fault) LED is on, it means the gas detector is faulty, please contact distributor to find solution.

Operating Button:
Warm Up: In case the detector needs to be started immediately press the warm up switch the gas detector will start without any warm up delay.
TEST: TEST button, during the detectors normal status, press this switch, the detector would start self-testing for FAULT.

Notification:

1. When the following status appears, the gas leak alarm may give alarming sound:

*Smoking in the room for a long period or a great deal smoke concentrated in the room

caused by other reasons.

Drinking in the room for a long period or a great deal alcohol concentrated in the room caused by other reasons.

***Using perfume or volatile organic compound such as gasoline, paint etc in the room for a long period

Technical Conditions

Operating Voltage:	AC220V $\pm$ 10%
Power consumption:	$\pm$ 3 W
Operating Temperature:	-10 $^{\circ}$C ~ 50 $^{\circ}$C Hum: <95% RH
Detection Gas	Combustible Gas
Response Time	Less than 20 sec
Alarming Preset Level	10 % LEL $\pm$ 30 %
Alarm Preset Level	Adjustable
Reset	Automatic/ Manual
Fault Indication	Yellow LED
Relay Contact	5 Amp Voltage Free contact (Optional)
Out Put	220 V 2Amps

Prism Gas Detector Models

Model	Detection Gas	Response time	Alarming Preset Level (Optional)
GD-P201	Combustible Gas	=<20S	10% LEL
GD-P201	Natural Gas	=<20S	10% LEL
GD-P601	Propane	=<20S	10% LEL
GD-P701	CO	=<2.5min	150 ppm
GD-P801	Hydrogen	=<20S	1000 ppm
GD-P901	CO + Combustible Gas	=<52.5min	150 ppm CO/10% LEL LPG
Automatic Resume			**Can be specified**

Gas Detector consists of the following components:

- Detectors head Catalytic (pelistor)
- Initiating Device Circuit module
- Output Unit Relay output
- Audible / Visual Devices.

To optimize the use of Gas Detectors Detector Location and Installation procedures should be followed as per applicable standards.

- Finalise Optimum Location of Gas detectors.
- Location of Junction boxes, power supplies.
- Connection of Gas Detectors with external switches etc.

Comply BS EN 60079-10 standards for installation of Fixed Gas Detectors

Prism mission is to benefit society by providing solutions through industry leading products, services and systems that save lives and protect capital resources from the dangers of hazardous gases and vapours.

Prism Gas Equipments brand name is synonymous with process safety and reliability in combustible, flammable and toxic environments.

Prism Gas Equipments stocks a complete range of products used in Gas Industry.

Prism with its extensive range of products and its sales network we can deliver you products used in gas industry as per your needs and demand.

As your partner for success in whatever your process needs, Prism will provide solutions that will meet or exceed your expectations.

CERTIFICATE No. Z2 10 08 68517 002	**CERTIFICATE** No. Z2 13 07 68517 004
Holder of Certificate: **PRISM GAS EQUIPMENT INC.** 21 PIERRE TRUDEAU, DOLLARD-DES-ORMEAUX QUEBEC H9A 3J8 CANADA	Holder of Certificate: **PRISM GAS EQUIPMENT INC.** 21 PIERRE TRUDEAU, DOLLARD-DES-ORMEAUX QUEBEC H9A 3J8 CANADA
Production Facility(ies): 74851	Production Facility(ies): 74851
Certification Mark: TÜV SÜD	Certification Mark: TÜV SÜD
Product: **gas detection systems** **Gas Leak Alarm**	Product: **gas detection systems** **Gas Control Panel**
Model(s): GD-P201	Model(s): KB200N
Parameters: Rated voltage: 230VAC, 50Hz Rated power: 3W Protection class: II	Parameters: Rated voltage: AC220V+/-20%, 50Hz Rated power: Max. 6W Protection class: I Remark: Type 2 apparatus according to EN 50270:2006
Tested according to: EN 50270:2006 EN 61000-3-2:2006 EN 61000-3-3/A2:2005	Tested according to: EN 50270:2006 EN 61000-3-2/A2:2006 EN 61000-3-3:2008 EN 61326-1:2006
Test report no.: BJ8000820201	Test report no.: B88001308001
Date, 2010-09-09 (Jing Zhang)	Date, 2013-08-02 (Jing Zhang)
Page 1 of 1	Page 1 of 1
TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany	TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany

PRISM GAS EQUTPMENT INC.
789 Cobble Hill Drive, Ottawa ON
K2J 0C4, Canada
Web Page : www.prism-canada.net
Email   : info@prism-canada.net