

Gas Detection Systems




Prism
GAS EQUIPMENTS
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ABOUT PRISM

PRISM GAS EQUIPMENTS is committed to provide all types of Gas Equipment's 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 airflow 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

NEW GENERATION GAS MONITORING SYSTEM

1 ZONE TO 100 ZONES



TECHNICAL DATA

Power supply	Main power: AC 220V±33V, 50Hz±5Hz Backup battery: DC 24V±3V rechargeable lead-acid battery
Consumption	≤20W
Power to detector	DC24V±6V (protection current: ≤2.5A)
Detection connection	2 loops of RS485 Power Bus(max. 100pcs)
Digital upload	2 loops of RS485 output, support MODBUS
Relay output	3 active relays, 3 free contact, relay capacity ≤4A
Ingress protection	IP54
Working temperature	0°C~40°C
Humidity	≤95%RH
Display and indication	LCD screen and LED indicators
Alarm indication	Audible (65dB-100dB@1m), visual
Dimension	370mm×246mm×102mm
Weight	≤15kg

GAS MONITORING SYSTEM

KB200N New Generation 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 New Generation 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 New Generation controller panel can use up to 100 Nos gas detector/ signal output.

KB200N New Generation gas alarm control panel can be combined with TC100N series gas detectors to form an industrial gas intelligent control system for monitoring and alarming gas concentration at industrial/residential sites.

This system uses a 4-bus system, which makes the installation easy with its gas detectors, transmitter, and signal output 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 New Generation

Automatic search at boot

4 Bus Structure

External devices can be started via the panel

Power management function

Easy to operate

Convenient for online zero calibration and relay setting

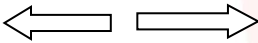
Battery Backup

Long Distance Monitoring

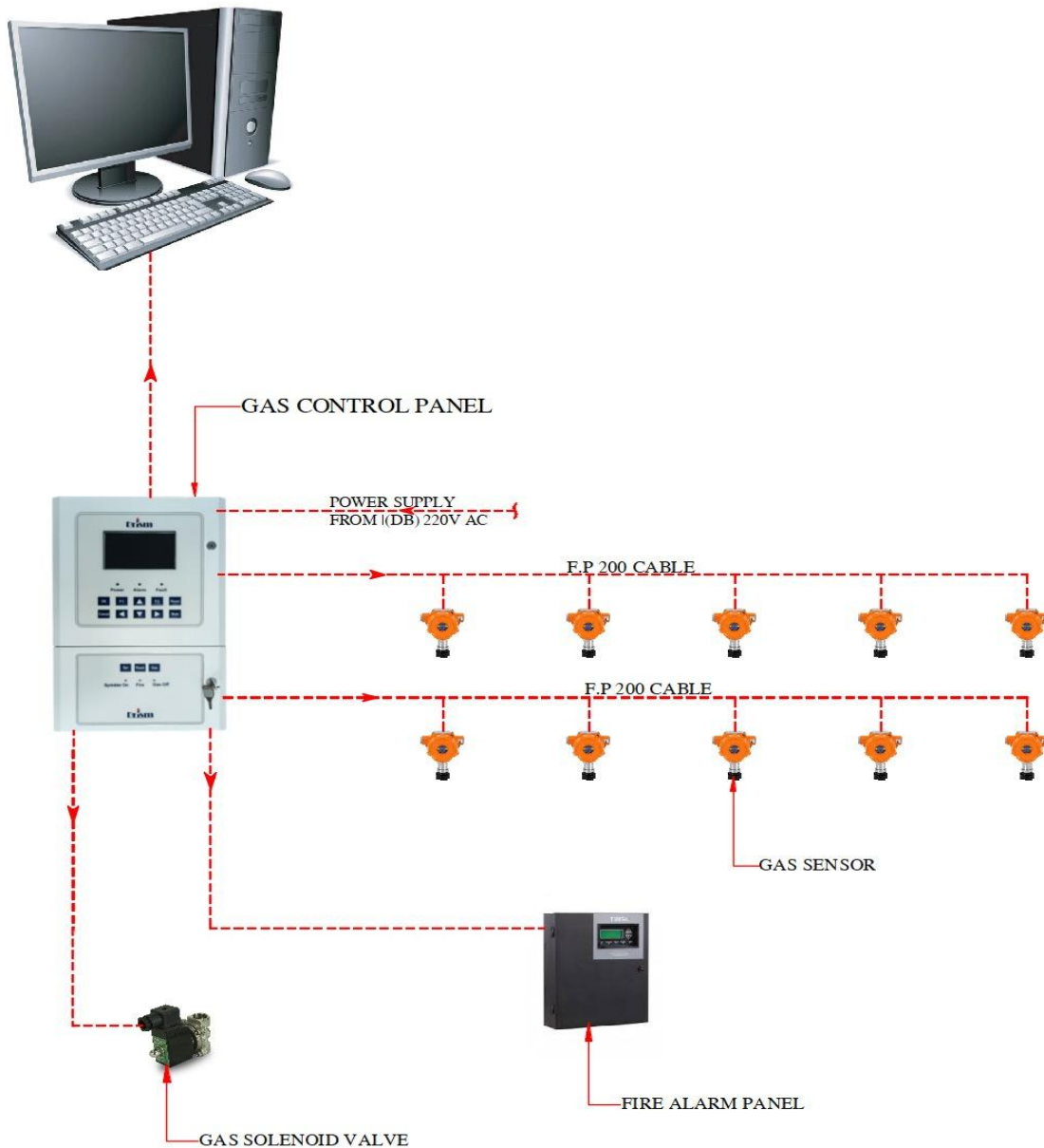
FUNCTIONS OF LED INDICATORS

Power (Green)	Lights on when either main power or backup battery is working normally.
Alarm (Red)	Lights on when any gas detector is in gas leakage alarming mode.
Fault (Yellow)	Lights on when any part of the whole detection system is found defective.
Spr On (Red)	Lights on when Sprinkler system is ON
Fire (Red)	Lights on when Fire alarm panel is activated
Gas Off(Red)	Lights on when Gas supply is shut Off

FUNCTIONS OF OPERATION BUTTONS

F1/F2	- In system logging mode, pressing both 2 buttons the relay will be activated. Press "Reset" button and the relay will be reset - In system logging mode, pressing "F1", "F2" and "Confirm" buttons at the same time, the panel will indicate remote authorization information.
	- Scroll in Manual Mode - Move the cursor on the parameter setting interface to select the parameter item to be set
	- View different interfaces in the monitoring interface - Move the cursor on the parameter setting interface to select the parameter item to be set
OK	- Enter the system menu in the monitoring interface. - Save the setting in the parameter-setting interface.
Cancel	- Exit menu. - Lock the panel in the monitoring interface.
Reset	Impact of reset operation: The system returns to the non-logging mode; clears the alarm state, including sound and light indication, and then returns to the normal monitoring state immediately. If the relay is triggered, the relay will also return to the normal state.
Mute	To cancel the sound alarming signal in alarming mode.
Spr	To manually control sprinkler system operation
Reset	To reset manually and it is functional in case of no fire alarm
Gas	To manually shut off main Gas Supply

SCHEMATIC DIAGRAM OF GAS DETECTOR CONNECTION



SYSTEM/NETWORK

KB200N New Generation Gas detection system consist of one control panel and TC100N series Gas detectors with RS585 Power Bus. This system can connect up to 100 TC100N series Gas detectors.

- KB200N New Generation has 2 Detector loops, each loop can take 50 TC100N series Gas Detectors.
- 6 independent relays are provided which can be programmed for 6 different scenarios.
- KB200N New Generation can be cascaded to connect with other KB200N New Generation panels.
- It can be connected external devices to operate Solenoid valves, Extract fans, etc.
- Real Time Monitoring Interface.
- System Menu Interface
- User logging Interface (Password)
- Alarm record review Interface.
- Operation Record Interface, max 200 records can be viewed
- Time setting Interface
- Relay setting Interface
- Detector setting and Detector address setting
- Zero/Span Calibration Interface
- Communication setting Interface

TC100N NEW GENERATION FIXED GAS DETECTOR



FEATURES

- High Sensitivity and Long Life.
- Low drift and reliable performance.
- Small Size and easy to install.
- Adopts double Bus structure/P BUS
- PCB protection design reduces fault rate.
- 4-20mA optional
- Explosion proof design suitable for Hazardous location

SPECIFICATION

- Target Gas: Combustible gases and Toxic gases.
- Sample: Natural Diffusion.
- Sensor type: Catalytic Sensor.
- Response time: $T_{90} \leq 20s$
- Ingress Protection: IP67
- Temperature: $-40^{\circ}C$ to $+60^{\circ}C$
- Explosion Proof: II 2 G Ex db IIC T6/T5 Gb & II 2 D Ex tb IIIC T80°C/T95°C Db
- Working Voltage: DC 24V
- Shell Material: Aluminum Alloy
- Operation-Indication: IR remote- Yellow-Fault :Red-Alarm :Green-Power
- Relays: 1 Relay (Free Contact)
- Dimensions and Weight: 130mmx154mmx83mm & about 1.2kg

PR-GDS-CAT-26-REV-01

TC100N (COMPACT) FIXED GAS DETECTOR



FEATURES

- Compact design
- Low Power consumption
- Small Size and easy to install.
- 4-20mA Optional
- Explosion proof design suitable for Hazardous location

SPECIFICATION

- Target Gas: Combustible gases and Toxic gases.
- Sample: Natural Diffusion.
- Sensor type: Catalytic Sensor.
- Response time: $T_{90} \leq 30s$
- Ingress Protection: IP66/67
- Temperature: $-40^{\circ}C$ to $+70^{\circ}C$
- Explosion Proof: Ex d IIC T6 Gb / Ex tb IIIC T80°C Db
- Working Voltage: DC 24V
- Shell Material: Aluminum Alloy
- Indication: Yellow-Fault :Red-Alarm :Green-Power
- Relay: 2 Relays(Free Contact)
- Dimensions and weight: 100mmx106mmx76mm & about 450g

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

