



## AMMONIA GAS DETECTORS



**SUPERFREEZE**

## **GAS DETECTOR SF 100N, SF 100T, SF200N and SF200T**

### **Introduction**

SUPERFREEZE SF Series is a fixed gas detecting transmitter, with 4-20mA or RS485 ModBus RTU output proportional to the gas leakage concentration with original imported catalytic combustion sensor. It monitors gas leakage by natural diffusion.

It is flexible, durable, accuracy, stable and it can be directly connected with DCS system or central unit.

With relay output, once the concentration exceed the preset alarm pointer(threshold) it will start the acoustic-optical alarm on the central unit and the external equipment like exhaust fans etc.



**SF 100/200N**



**SF 100/200T**

### **Technical Details of SF - Series Gas Detectors**

Gas	: Combustible gas, toxic gas and Oxygen
Accuracy	: 3% F.S.
Response time	: 90<30s
Operating Temperature	: -20° to +60°C
Humidity	: 90% RH no condensation
Working current	: <=50mA
Output signal	: 4-20mA standard and RS485 output optional
IP grade	: Ip66
Net weight	: About 1200g
Mounting Screw thread	: M12 x 1.5 or G1/2
Transition distance	: <=1000 meter
Power supply	: 16-30V DC
Alarm indication	: 85dB the higher of buzz frequency the higher gas concentration is
Explosion Class	: Ex d IICt6Gi5

SF100N/T is for single gas (combustible or toxic gas)



## GAS DETECTOR

### Features

- 4-20mA analog output for direct communication to DCS or RS485 ModBus RTU optional.
- Relay output for connecting external device.
- LCD display screen in SF 200N, SF 200T without digital Display Screen.
- Advantage-Sensor module(block) design on spot replacement and automatically distinguish sensor fault and current display fault simultaneously.
- When the sensor out of service or sensor fails, the user can check and solve the problem by replacing spare modules this saves time and money.
- The LCD display and LED display module can be interchanged, supporting swift swap, support plug and play functionality.
- The sensor module and the connection interface in the detector have jack and plug prevent improper insertion. Just spin and press the plug gently, the plug can be inserted in the jack.
- The sensor module of the detector can be replaced by the same type module and the different gas sensor module and different range sensor module. The detector can distinguish and operate itself.
- Whatever the sensor module is chosen to replace the original one, there is no need to re-calibrate it. The detector automatically distinguish the sensor module, reads the ex-factory calibration value and related setting value and operates detecting when the self inspection is done.
- Password verification for repeat operation, avoid fault operations.
- -40 to +70°C following compensation for accurate detecting.
- Two grade visual alarms on-site and relay (connected with audible/visual alarms or drive exhaust device).
- User selectable alarm set-point(s).

**Note : SF100N/T only sensor module is replaceable and no calibration is needed.**

**In case of SF 200N/T all parts are replaceable except enclosure.**





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## SF10 VISUAL and AUDIBLE ALARM



- Stainless steel, anti corrosion, water proof
- LED cover is made of bullet proof glass, strong and clear.
- Stable and long working life span
- Eight revolving high light LED

### Technical Details

Temp range	: -40 to +70°C
Humidity	: 0 to 95%RH no condensation
Atm Pressure	: 80 to 106 Kpa
Ambient condition	: <75dB
Relay output	: DC24V $\pm$ 20%
Working current	: <100mA
Alarm light	: 2400 $\pm$ 200mcd
Alarm of sound	: >85dB
Shell	: Stainless steel
Electric connector	: M20x1.5, G3/4, G1/2
IP Grade	: Ip65
Explosion proof grade	: Ex d IIcT6Gi5
Size	: 102x42x65mm
Weight	: <1kg.



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## GAS DETECTING SYSTEM



### SF 2000 Gas Detector Control Panel

#### Features

- 128 x 64 dot matrix big screen liquid digital display
- Various gas detector together to fix
- The up and low alarm points of each channels can be set separately
- 4/8 channel 4-20mA 48 channel RS485 output signal
- RS485, RS232 communication port can upload data to computers & 4 relay output

#### Technical Details

Capacity	: 1-8 detectors is available
Operational temperature	: -20 to +50°C
Humidity	: <90%RH no condensation
Accuracy	: ±3%FS
Response	: T90<30s
Alarms	: Audible& visual
Alarm values	: Could be set by users
Alarm output	: Two relay output 230V
Supply Volt	: 220V, 50 Hz, <5W
IP grade	: Ip54
Explosion proof grade	: IIC T6
Size	: 250 x 380 x 100mm
Weight	: <3 Kg.



## SF210 PORTABLE AMMONIA GAS DETECTOR

### Features

- Reliable and durable fixed life by the imported sensor
- Automatic calibration and zero set
- English menu, Display real time and battery capacity. Low battery indication and automatic turn off for low voltage
- Advance self test of complete functions automatically when turned ON. 1000 record capacity
- Rapid and effective warning with audible alarm and extremely bright visual light alarm and vibrating alarm as standard



### Technical Details

Model	: SF210
Gas	: Single gas (combustible gas, toxic gas, oxygen)
Accuracy	: $\pm 3\%$ FS
Response	: T90<30s
Operating temp.	: -30 to +50°C
Humidity	: <95%RH no condensation
Voltage	: DC3.7V Li- ion battery 1200mAh
Charging	: 4 to 6 hrs
IP grade	: Ip66
Weight	: about 120g including battery
Dimensions	: 102 x 56 x 26 mm
Duration of operation	: Flammable gas 8h (non stop), toxic gas 300h (non stop)
Indication	: Large STN LCD indicates real time and system state
Alarm indication	: Wide angle light emitting diode, 85dB buzz(The frequency of buzz depends on density.) vibration
Fault indication	: Indication of zero point drift and sensor failure.

**SUPERFREEZE INDIA (P) LTD**

An ISO 9001 : 2015 Certified Company

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