LP Gas Detection / Alarm System

NV-500

2 days Backup Power Supply Device & easy to operate Multi-Maintenance Functions

Descriptions
The NV-500 is newly developed gas alarm system with superb backup power supply device and easy to operate multi-maintenance functions, for monitoring gas leakage from LPG manufacturing, storage, and consumption facilities for prevention from an accident due to gas leakage.

Features
1. 2 days backup power supply device (when 6 diffusion type detector heads are used)
2. Easy to operate multi-maintenance function (Auto zero, simple span adjustment, etc.)
3. Seismic technology - Designed in consideration of a great earthquake
4. Easy to read the dual bar-graphic LCD indicator with back light
5. Super thin-depth (71.5mm), space-saved indicator / alarm unit design

NV-500-
2 / 4 / 6 / 8 / 10 / 12 channel (selective)
Indicator / Alarm unit with built-in back-up power device

Detector Head
Diffusion type KD-5

Optional Accessory
Extension Alarm EB-5
KW-15
PW-51

Rain / Splash cover
Suction type PE-2DC
## Specifications

**Indicator / Alarm unit Model**

<table>
<thead>
<tr>
<th>NV-500-2</th>
</tr>
</thead>
</table>

### Principle of detection
Catalytic combustion type

### Gas to be detected
LPG (in the air (~C4H10 standard))

### Detection range
0 to 100% LEL

### Gas concentration indicator
LCD bar graph meter with back light (with scales to read preset alarm value and peak hold)

### Standard preset alarm value
24% LEL (isobutane 0.49vol%)

### Alarm accuracy
Within ±25% of the preset alarm value

### Response time
Within 30 seconds when gas concentration is 1.6 times more than the preset alarm point (Suction type: The delay due to sampling pipe length should be excepted.)

### Alarm indication
- **Individual alarm lamp (Red)**: Blinking in an alarm, Self-holding. Lights up when the buzzer stops.
- **Intermittent alarm sound (Green)**: Self-holding, Consecutive alarm method.

### Failure indication
- **Individual power lamp**: Green lamp goes off and orange lamp lights up when the sensor is disconnected.
- **Intermittent alarm sound**: Self-holding, Consecutive alarm method.

### Alarm output terminal
- **Individual output**: 1a contact (Contact capacity: AC100V 2A) 1 set each
- **Collective contact**: Voltage (0-6-12V 20mA or less) 1 set each
- **Buzzer contact**: Voltage intermittent signal (DC12V 10mA or less) 1 set
- **Centralized supervisory panel output**: Voltage (0-6-12V 20mA or less) 1 set

### External reset terminal
Terminals for external buzzer stop and reset

### Alarm delay
Delay mode can be set individually. (Delay time: 10 seconds in standard) Setup at the time of delivery: Not set

### Zero suppression function
Zero suppression mode can be set individually. Setup at the time of delivery: F.S.5%

### Auto zero adjustment function
Zero point can be automatically adjusted simply by pressing a button.

### Power source
- **AC100-240V 50/60Hz (standard)**
- **DC24V±10% (needs to be specified)**

### Power consumption
- **Backup power source (Unit with a backup power source only)**:
  - **Battery**: Lead lead battery (12V2.6Ah, 2)
  - **Model (Nos. of detector head)**: Diffusion type Suction type NV-500-12 NV-500-6 24 hours 15 hours Charge time: About 24 hours
  - **Conditions**: A cycle of intermittent operation is eleven minutes. No alarm. Voltage output with no load.

### Temperature range
0 to 40°C

### Installation
Well-mounted or recessed

### Painting color
Munsell 2.9P8.7.0.1

### External alarm barrier
Option: BIT-150 intrinsically safe construction (2D4)

### Maintenance function
- **Main unit lamp lights up. BATT voltage indicates "A1"**: Blink for about five seconds when the preset alarm value is reached then lights up.
- **Alarm lamp**: Blinking in an alarm, Self-holding. Automatically stops.
- **External output**: All contact output and voltage output stop.
- **Peak hold**: Peak hold is indicated when indication exceeds 10% LEL.
- **Zero suppression**: Cancelled in the maintenance mode.
- **Auto span**: Peak hold value is automatically corrected to the calibration gas concentration value simply by pressing a button.

### Detector head Model
- **KD-5B-N**
- **PE-2DC**

### Sampling method
- **Diffusion**
- **Suction**

### Gases to be detected
LPG

### Detection range
- **0 to 100% LEL**

### Explosion proof construction
- **Pressure tight construction d2G4**

### Temperature range
- **-10 to 40°C (no condensation)**

---

### Dual indicator Unit

---

NEW COSMOS ELECTRIC CO., LTD.

Head Office: 2-5-4, Mitsuwa-naka, Yodogawa-ku, Osaka 532-0036, Japan
Tel: +81-6-6308-1505 Fax: +81-6-6308-0571

Tokyo Office: Towa-Hamamatsu Bldg., 2-6-2, Hamamatsu, Minato-ku, Tokyo 105-0013, Japan
Tel: +81-3-5403-2715 Fax: +81-3-5403-2710

[Printed in Japan]