Sismik® PNL

Control Panels

Gas Monitoring and Control

4-20mA Analog Input

PPM,%LEL and %Vol Reading

Status Record Feature

4-Input and 8-Input Models

Humidity and Temperature Monitoring

Turkish and English Menu

RS485 RTU Modbus Output

TFT LCD Display

Configurable ALARM Feature

Alarm Relay Outputs

AUX Relay Output

Fault Relay Output

GENERAL FEATURES

• The Seismic Control Panel is used to monitor gas levels in the environment by continuously reading gas measuring devices and to provide security against gas leaks, explosions and poisoning by giving output when necessary.
• Gas measuring devices with 4 or 8 pieces 4-20mA outputs can be connected to the control panel.
• There are 2 alarm relays, ALARM1 and ALARM2, on the gas measuring devices, 1 AUX relay and 1 fault relay that controls the error status of gas measuring devices, and these relays are active in case of malfunction or alarm.
• The user can independently set the ALARM2 level for the connected gas measuring devices.
• ALARM1 level is fixed on the panel and adjusted by the manufacturer for each gas type.
• AUX relay can be assigned by the user to output in ALARM1 or ALARM2 states. In addition, the temperature and humidity values in the environment are monitored with the sensor on the panel.
• There is a 2.4 inch TFT LCD screen on the panel, and gas measuring devices connected to the panel via this screen; ON and OFF states, detected gas levels, gas measurement units, alarm states and error states can be monitored.
• In addition, temperature, humidity, date and time information is displayed on the main screen.

INDICATORS AND WRITINGS

The expressions of the LED and Display texts on the panel are given below.

INDICATOR AND TEXT	DESCRIPTIONS
POWER LED	Indicates that the power supply is being used.
BATTERY LED	Indicates that the battery is used.
ALARM1 LED	Indicates that ALARM1 output is active.
ALARM2 LED	Indicates that ALARM2 output is active.
AUX LED	Indicates that the AUX output is active.
ON/OFF text on the screen	It shows the active status of the relevant device.
ALARM1 text on the screen	Indicates that it detects at ALARM1 level.
ALARM2 text on the screen	Indicates that it detects at ALARM2 level.
ERROR on the screen	Indicates that there are error conditions.

BUTTONS AND FUNCTIONS

There are MENU, UP, DOWN, EXIT and RESET buttons to make settings on the panel and to reset the panel. The following table gives explanations of the button functions

BUTTON NAME	ONE CLICK TASK	DOUBLE CLICK TASK
MENU	Introduction to menu setting	Confirmation
EXIT	return to previous page	Return to home screen
UP	Advance to the next step on the page	No
DOWN	Advance to previous step on page	No
RESET	Reset the system	No

TFT LCD DISPLAY

There is a 2.4 inch screen on the panel, and the temperature, humidity, date and time information of the current environment can be found on the screen. ON or OFF status of measuring devices connected to the control panel, detected gas levels, gas measuring units, alarm states of measuring devices and error states can be monitored.

COLUMN	DESCRIPTIONS
INPUT	Shows the number of the connected device.
ON/OFF	It shows the ON or OFF status of the connected device.
PPM/%LEL	It shows the gas level and the unit of measurement (PPM, LEL, VOL).
ALARM	Indicates the alarm status. ALARM1, ALARM2 or (-).
FAULT	Indicates the error status. ERROR or (-).

TECHNICIAL SPECIFICATIONS

Supply Voltage and Current	: 24V DC (± 10%), 5A
Battery Supply (Optional)	: 2x12V DC / 7A Battery input (Optional)
Maximum Power Consumption	: 6W
Models	: 4 (PNL-4) and 8 (PNL-8)
Input Connection	: 4-20mA Analog Input
Relay Outputs	: ALARM1,ALARM2,AUX and FAULT
Buzzer	: ~85dB / 30CM
Ambient Temperature Measurement	: 0 - 50°C ±2
Ambient Humidity Measurement	: 0 - 90%RH ±5
Operating temperature	: 5 - 50°C
Operating Humidity Value	: 10 - 90%
Battery and Power supply fuse	: 3 A
Dimensions	: 265mm x 200mm x 100mm
Weight	: 2.2 Kg

PROGRAMMING

• Gas measuring devices connected to the panel with the MENU, EXIT, UP and DOWN buttons on the panel; Alarm, gas type, gas measurement unit, date, time, language, AUX relay can be set.
• The seismic control panel is set to Turkish as the factory setting, and the language can be selected by the user as English.
• Press the MENU button once to enter the main menu.
• By using the UP and DOWN buttons, the user can select the desired option and can make the relevant selection by double-clicking the MENU button. If the EXIT button is clicked once, it will return to the previous page. Double-clicking the EXIT button will return to the main screen from any page.

FEATURES OF THE MENU SCREEN

• **Device Setting:** It is used to ON/OFF the Detector connected to the relevant input, to select the gas type, to select the gas measurement unit, to see the ALARM1 level, to set the ALARM2 level and to access the connected ON state information of the Detector.
• **Date, Time & Language Setting:** Panel; It is used to set the date, time and language (Turkish, English).
• **Status Logs:** It is used to access the last 8 alarm and fault records.
• **AUX Relay Assignment:** It is used to set the AUX relay together with ALARM1 or ALARM2.

ALARM 1 LEVELS

• The following table contains the ALARM1 levels of gas measuring devices and panels produced by Sismik company.
• There are ALARM1 levels determined for each gas type.
• These values have been kept constant by the Sismik firm.
• In case of gas density reaching ALARM1 levels, panel outputs will automatically switch to Alarm status.

GAS TYPE / MEASUREMENT RANGE	ALARM LEVEL
METHANE - 0-100%LEL	40%LEL
LPG - 0-100%LEL	40%LEL
BUTANE - 0-100%LEL	40%LEL
PROPANE - 0-100%LEL	40%LEL
HYDROGEN - 0-100%LEL	40%LEL
HYDROGEN SULFIDE 0-100 PPM	40 PPM
AMMONIA - 0-100 PPM	40 PPM
CARBONMONOXIDE - 0-1000 PPM	160 PPM