GVZ components

Your Sensing Solutions

Gas Leak Detection System

Complete Industrial Safety Solution



GCK

Gas Control Kit

NEW !

The Gas Leakage Monitoring Kit consists of one or more (up to 4) MLD (Molecular Leakage Detector) gas detectors and a control unit equipped with an audible/visual alarm, backup battery, illuminated emergency push button for manual alarm activation, and a secondary visual-audible beacon/ siren for remote notification.

The Kit is designed to signal a gas leak pre-alarm or alarm (for A2L and A3 refrigerants, methane, propane, hydrogen, etc.). The system is engineered to operate even during temporary power outages, thanks to a backup battery integrated into the main control unit.

In addition to visual and audible alerts, the control unit provides two voltage-free relay contacts (dry contacts) and a dedicated Modbus line for integration with third-party systems.

Description

- Visual and audible alarm management control unit, compliant with the UNI EN 378-1 standard, equipped with a siren and flashing beacon for gas leak alarm notification, as well as a backup battery in the event of a power outage. It features a dual relay providing a voltage-free (dry) contact (closed when the alarm is active), which can be used to trigger a remote alarm signal. It is also equipped with a dual RS-485 serial line featuring the ModBUS-RTU protocol: one dedicated to managing the gas detectors and one available for integration with third-party systems.
- Programming via Bluetooth with dedicated APP
- Rechargeable backup battery with battery status and efficiency monitoring
- The control unit is equipped with a button to mute/silence the gas alarm for managing periodic functionality checks
- MLD gas leak detectors to be installed at the key locations of interest, featuring separate gas pre-alarm and alarm notifications. Up to 4 gas sensors can be connected in series via Modbus
- Emergency push-button panel to be mounted in a position accessible to the operator. It consists of an illuminated emergency mushroom button with N.C. (Normally Closed) contact. The LED mushroom illumination is permanent to allow identification even in the dark. Up to 4 push buttons can be connected
- Secondary visual-audible gas leak signal/beacon to be installed in a different location from the control unit (optional)

Applications

- **Test chambers for HVAC units with flammable refrigerants**
- **Production line / gas charging stations for HVAC units**
- **Testing laboratories using flammable gases and technical rooms**
- **Complex HVAC-R units requiring multiple gas leak detection points**
- **Naval engine rooms / marine machinery spaces**

GVZ Components Srl - T: +39 02 3340 0846 E: info@gvzcomp.it W: https://gvzcomp.it

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GCK Gas Control Kit

GCK Control Unit - Technical Features

Parameters	
Dimensions	203 × 193 × 79 mm
Weight	3 kg
Power Supply	230 VAC, 50/60 Hz
Max consumption on main line	10 VA
Backup battery	12 VDC Ni-MH, 1300 mAh
Fully recharge time	10 h
Battery backup runtime	10 h (with fully charged battery)
Working temperature	-5 ÷ +45 °C
Acustic features	Type: piezoelectric – Loudness: 90 dB @ 1 m
Visual warning	Blinking red LED, 12 VDC
Alarm relay / AUX	N° 2 – 5 A AC1 (SPDT)
Supervision	TeleNet / Modbus-RTU
Serial	Modbus-RTU
Bluetooth	BLE with app myPego
Weather proof	IP65
Certifications	CE – EMC – IEC60335-2-40

MLD Gas Detector - Technical Features

Parameters	
Technology	Molecular Property Spectrometry by NevadaNano
Target gas	Refrigerants A3 (R290, R170, R50, R600, R600a, R601, R1270) Refrigerants A2L (R32, R454A, R454B, R454C, R1234ze) flammable (butane, ethane, hydrogeno, isobutane, isobutilene, isopropanol, methane, metiletilkethone, octane, pentane, propane, propilene, toluene, xylene)
Measuring range	3-100% LEL
Accuracy **ISO 10156 0-50% LEL** **UL 60335-2-40** **≤25 %LEL @ 20 °C - 50 %RH**	Refrigerants A3: ±3% LEL (R50), ±5% LEL (R170- R600/a-R1270), ±7% LEL (R290- R601) Refrigerants A2L: ±2.5% LEL
Response time	<12 sec.
Response time (T90)	<30 sec.
Resolution	0,1% LEL
Sensor expected life	over 15 anni
Signal output	Gas concentration, Status, Prealarm, Alarm, Fault, Lifetime, Pressure, Humidity, Temperature
Communication output	Modbus | 4-20mA | 0,1-2,9V | 2x Relays
Visual warnings	3x LED (Status, Prealarm, Alarm/Fault)
Power supply	12-24VDC ±10%
Consumption	Avg. 50mA - Peak: 60mA (12VDC) | 80mA (24VDC)
Working temperature	-40° to +70°C (12VDC) | -40° to +60°C (24VDC)
Humidity	0 - 100% RH
Working pressure	80 to 120 kPa
Weather proof	IP65
Dimensions	13 x 8 x 2,5 cm
Certifications	CE, EMC, Rohs, IEC60335-2-40, EN60079-0, EN60079-11, ATEX SIL 2 according to IEC61508 / EN50402 / IEC 50271 / IEC 50270 (pending)

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