ParkSafe Gas Detection & Ventilation Control System

Product Overview:

The ParkSafe Controller is designed for installations into car parking facilities and enclosed garages. Each Merlin ParkSafe Detector (Nitrogen Dioxide) and (Carbon Monoxide) is powered directly from the Merlin ParkSafe controller and communicates data through Modbus RTU. Up to 16 detectors can be powered/controlled by theParkSafe, each detector can cover a 50ft radius.

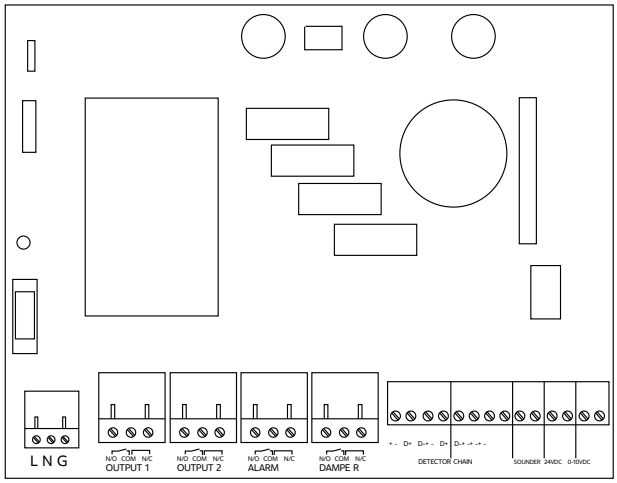
The system can automatically control ventilation systems according to gas levels and an optional temperature levels. The ParkSafe is capable of activating both the exhaust fan(s) and the air intake device(s) such as outside air louvers/dampers and make up air units.

Technical Specifications

General	
Model:	ParkSafe
Capacity:	Up To 16 Channels Per Controller Unit
Size: (H x W x D)	180mm x x 255mm x 76mm
Housing Material:	ABS Polyac - PA765 / UL 94 V-1
Mounting:	Indoor Use - Wall Mounting
Weight:	1.3kg
Display:	4.3" TFT Touch Screen
Visual Indicators:	Green: Normal / Amber:Alarm Delay / Yellow: Pre-Alarm / Red: Alarm Relay Outputs ON/OFF Gas Detection Status
Audible Alarm:	>70dB @ 3.28ft (1m). Quiet conditions
Buttons:	Common for Silence/Reset operation
Power Consumptions:	14.5W Max
AC Power:	230V - 50/60Hz
Internal Fuse:	T3.15A L250V
Relay Output::	Volt Free Relay Outputs x4 (non-latching) - NO/COM/NC 6A @ 230V User Configurable - Energised/De-Energised - Time Delay - 24VDC Switching
Common Output:	24VDC Permanent / 0-10VDC Variable
Ingress Protection:	Nema 4 / IP64 (See Manual For Further Information)
Operating:	-10~50°C 30 ~ 80% RH (non-condensing)
Storage:	-25~50C° up to 95% RH (non-condensing)
Typical Wiring:	Power & Relay: ~#18-12AWG / Detector: #12-18AWG Power Pair; #18-22AWG Data Pair / Other: #18-22AWG
Electromagnetic Compatibility and Electrical Safety:	IEC 61010-1:2010 + AMD1:2016; EN 61010-1:2010 +A1:2019; UL61010-1/2012/ CAN CSA C22.2 No. 61010-1-12/ A1:2018-11 EMC EN 61326-1:2013

PRODUCT SPEC SHEET ParkSafe

ParkSafe PCB Overview



0-10V OUTPUT

LINEAR OUTPUT BASED ON MEASURING RANGE OF DETECTOR

24VDC PERMANENT OUTPUT

USED IN CONJUNCTION WITH PANEL RELAYS TO CREATE 24V SWITCHED POWER TO CONTROL EXTERNAL CONTACTORS, IF REQUIRED

24VDC SOUNDER STROBE

SENDS 24VDC WHEN SYSTEM ENTERS ALARM

DETECTOR CHAIN

DAISY CHAIN IN/OUT

POWER IN 230VAC

6A MAX

OUTPUT 1 RELAY

6A MAX 230VAC CHANGES STATE AT PRE-ALARM LEVEL

OUTPUT 2 RELAY

6A MAX 230VAC CHANGES STATE AT HIGH ALARM LEVEL

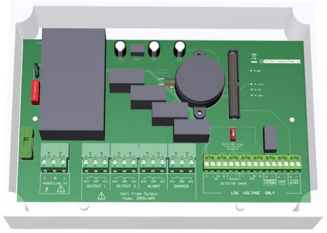
ALARM RELAY

6A MAX 230VAC CHANGES STATE AT HIGH ALARM, AFTER SET TIME DELAY IF TURNED ON

DAMPER RELAY

6A MAX 230VAC CHANGES STATE WITH EITHER OUTPUT 1 OR OUTPUT 2 RELAY. SETTINGS CHANGED ON PANEL VIA DIPSWITCHES

PARKSAFE DETECTOR



PARKSAFE PCB