KADA INDUSTRIES

MEG *Plus* | 2019

MEG *PLUS*

STANDALONE MONITOR FOR TOXIC AND COMBUSTIBLE GASES

FEATURES

- SUPPORTS THREE INPUT CHANNELS
- ACCEPTS PRE-CALIBRATED PLUG-IN SENSORS
- INTUITIVE TOUCH SCREEN USER INTERFACE WITH PASSWORD PROTECTION
- AUTOMATIC FAIL-SAFE
- 3-STAGE 10A SPDT RELAY OUTPUTS WITH FIELD PROGRAMMABLE SET-POINTS, WARNING, HIGH & ALARM
- TIME DELAY FOR ALARM
- BUILT-IN VISUAL/AUDIBLE ALARM WITH KILL SWITCH
- 4 ANALOG 4-20MA OUTPUTS
- RS485/MODBUS RTU SERIAL COMMUNICATION
- FAN OVERRIDE TIMER (OPTIONAL)
- DATA LOGGING (OPTIONAL)

APPLICATIONS

- PARKING GARAGES, LOADING DOCKS
- VEHICLE MAINTENANCE FACILITIES
- CAR DEALERSHIPS
- INDOOR SPORTS COMPLEXES/ARENAS
- HOSPITALS, AMBULANCE BAYS
- AIRPORTS, FIRE STATIONS
- WAREHOUSES
- BOILER ROOMS, BATTERY ROOMS
- GREENHOUSES, WINERIES
- LABORATORIES
- COMMERCIAL KITCHENS

MEG *PLUS*

FLEXIBLE AND PRACTICAL, EFFICIENT AND COST-EFFECTIVE

Mission

To ensure occupant safety in enclosed areas from any sudden release or build-up of hazardous gases.

To maintain indoor air quality at acceptable levels.

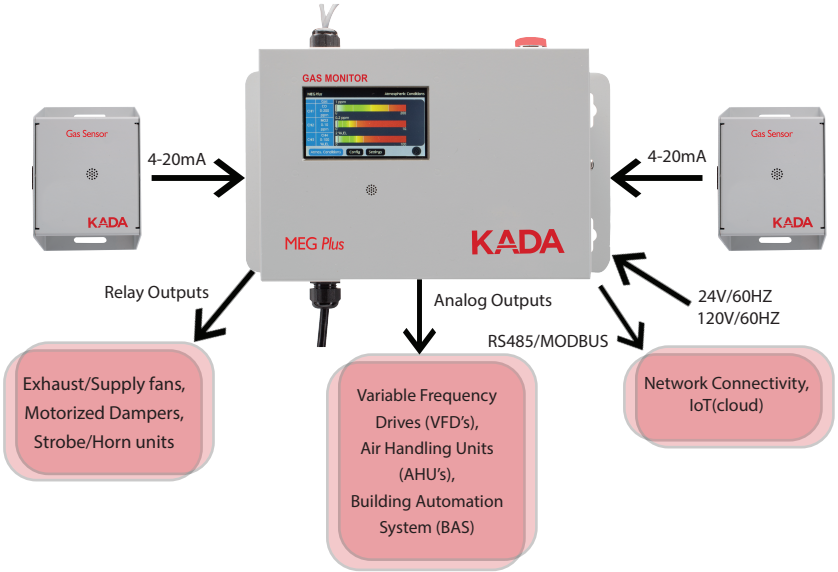
To help reduce building energy costs by operating the mechanical ventilation system intermittently based on demand.

Description

The KADA MEG *Plus* is a compact standalone multi-gas monitor with up to 3 sensors. The MEG *Plus* will monitor a combination of gases from different sensors, display the acquired readings on a touchscreen LCD and, based on conditions, provide a set of outputs to control the ventilation system of the monitored area and activate alarms.

Standard models of the MEG *Plus* are offered with 1 integral sensor and 2 remote sensors; alternatively, Meg *Plus* can be ordered with all its 3 sensors remote.

MEG *Plus* has a set of 3 SPDT relay outputs reserved for WARNING, HIGH and ALARM levels with separately programmable set points for each sensor. The relay outputs of the MEG *Plus* are typically used to turn on supply/exhaust fans, open motorized dampers and activate remote strobe/horns.



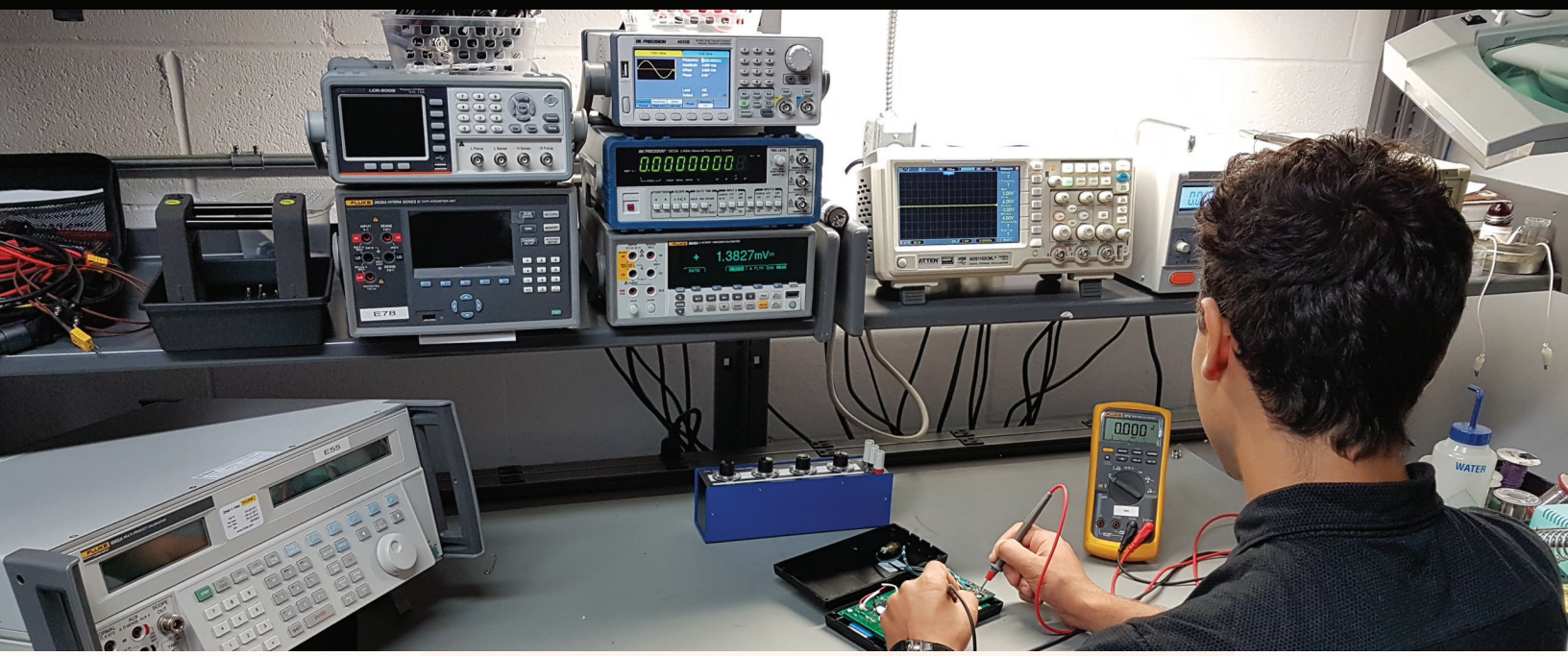
MEG *Plus* also has 4 analog 4-20mA outputs (one for each sensor and one more for peak or average reading). The analog outputs of the MEG *Plus* can be used to control variable frequency drive (VFD) fans, remote actuators or simply to feed data to the BAS (Building Automation System).

Although shipped as a "Plug and Play" device, Meg *Plus also* allows the user to make field-modifications easily thanks to a user-friendly touch screen interface.

Meg *Plus* is housed in a robust NEMA 1 metal enclosure with a hinged door and tamper proof screws; optionally MEG *Plus* can be ordered with splash-proof cover or a protective guard.

MEG *PLUS*

AT KADA, WE VALUE QUALITY ASSURANCE AS OUR TOP PRIORITY

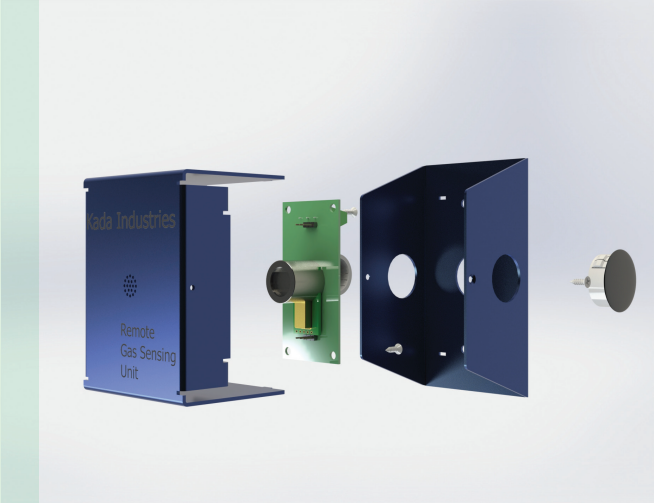


MEG *PLUS* GENERAL SPECIFICATIONS	
Uses	Wall-mounted standalone gas monitor for toxic and combustible gases and oxygen deficiency -single, double and triple-sensor platforms
Power Requirement	120V 50/60HZ 500mA, 12VA also available 24V 50/60Hz 750mA
Input Type	(3) 4-20mA, 2- or 3-wire
Relay Outputs	(3) SPDT (Form C) 10A @ 250VAC
Analog Outputs	(4) 4-20mA into 500 ohms max
Operating Temperature	-20 to 50°C (4-122°F)
Humidity	5 to 95% RH non-condensing
Enclosure (monitor)	Aluminum powder-painted finish 203 x 140 x 76 mm (8 ½ x 5½ x 3 in) 2kg (4.4lbs)
Sensor enclosure	Polycarbonate 108 x 83 x 45 mm (4¼ x 3¼ x 1¾ in) less than 0.5kg (1.1lbs)
Sensing Method	Diffusion
Gases Detected	CO, CO_2,CL_2,H_2S, NH_3,NO_2,O_2,CH_4,C_3H_8,C_4H_{10},H_2
Sensor Technology	Electrochemical cell (CO,CL_2,H_2S,NH_3,NO_2,O_2), Catalytic bead(CH_4,C_3H_8,C_4H_{10}, H_2),Infrared CO_2
Response Time	T90 < 30 sec
Sensor Accuracy	± 3% Full Scale @ 25°C
Hysteresis	0-20% Full Scale programmable
Display	5" color LCD touchscreen. Graphic user interface
Audible Alarm	85 dBA @ 3 meters (10ft)
OPTIONAL FEATURES	
Battery Backup	22.2 V lithium ion battery 2600mAh
Onboard Data logging	Logged events and sensor readings
Communication	RS485/MODBUS RTU serial communication

MEG *PLUS*

KADA GS-SERIES GAS SENSORS ARE RELIABLE AND LONG LASTING WITH A 2 YEAR LIMITED WARRANTY

MEG *Plus* employs electrochemical, catalytic bead and infrared sensors to detect various gases. KADA's GS-Series 4-20mA sensor modules are furnished pre-calibrated from the factory and can either be integral or remote to the MEG *Plus*. Remote types are field-connected to the input channels of the MEG *Plus* via dedicated 2 or 3 wires. Please refer to the table below for more information on the KADA GS-series gas sensors.



KADA GS SERIES GAS SENSORS 4-20MA OUTPUT

Gas		Model no. I: integral R: remote	Connect type	Sensor technology	Range	Coverage radius	Mounting height	Sensor Life
Ammonia	NH_3	GS2-NH 3-I GS2-NH_3-R	2-wire	Electrochemical	0-100PPM	6m (20ft)	0.5m (20in) below ceiling	>2 years
Butane	C_4H_{10}	GS3-C_4H_{10}-I GS3-C_4H_{10}-R	3-wire	Catalytic bead	100% L.E.L.	6m (20ft)	0.3m (12in) a.f.f.**	>3 years
Carbon dioxide	CO_2	GS3-CO_2-I GS3-CO_2-R	3-wire	Infrared	0-5000PPM*	15m (50ft)	1.21-1.83m (4-6ft) a.f.f.	>10 years
Carbon monoxide	CO	GS2-CO-I GS2-CO-R	2-wire	Electrochemical	0-200PPM	15m (50ft)	1.21-1.83m (4-6ft) a.f.f.	10 years
Chlorine	CL_2	GS2-CL_2-I GS2-CL_2-R	2-wire	Electrochemical	0-10PPM	6m (20ft)	1.21-1.83m (4-6ft) a.f.f.	>2 years
Hydrogen	H_2	GS3-H_2-I GS3-H_2-R	3-wire	Catalytic bead	100% L.E.L	6m (20ft)	0.5m (20in) below ceiling	>3 years
Hydrogen sulfide	H_2S	GS2-H_2S-I GS2-H_2S-R	2-wire	Electrochemical	0-20PPM	6m (20ft)	0.3m (12in) a.f.f.	>3 years
Methane	CH_4	GS3-CH_4-I GS3-CH_4-R	3-wire	Catalytic bead	100% L.E.L.	6m (20ft)	0.5m (20in below ceiling	>3 years
Nitrogen dioxide	NO_2	GS2-NO2-I GS2-NO2-R	2-wire	Electrochemical	0-10PPM	15m (50ft)	0.5m (20in) below ceiling	>2 years
Oxygen	O_2	GS2-O2-I GS2-O2-R	2-wire	Electrochemical	0-25%	6m (20ft)	1.21-1.83m (4-6ft) a.f.f.	5 years
Propane	C_3H_8	GS3-C_3H_8-I GS3-C_3H_8-R	3-wire	Catalytic bead	100% L.E.L.	6m (20ft)	0.3m (12in) a.f.f.	>3 years

TOXIC GASES

AMMONIA

CARBON DIOXIDE

CARBON MONOXIDE

CHLORINE

HYDROGEN SULFIDE

NITROGEN DIOXIDE

COMBUSTIBLES:

BUTANE

HYDROGEN

METHANE

PROPANE

OXYGEN DEFICIENCY:

OXYGEN

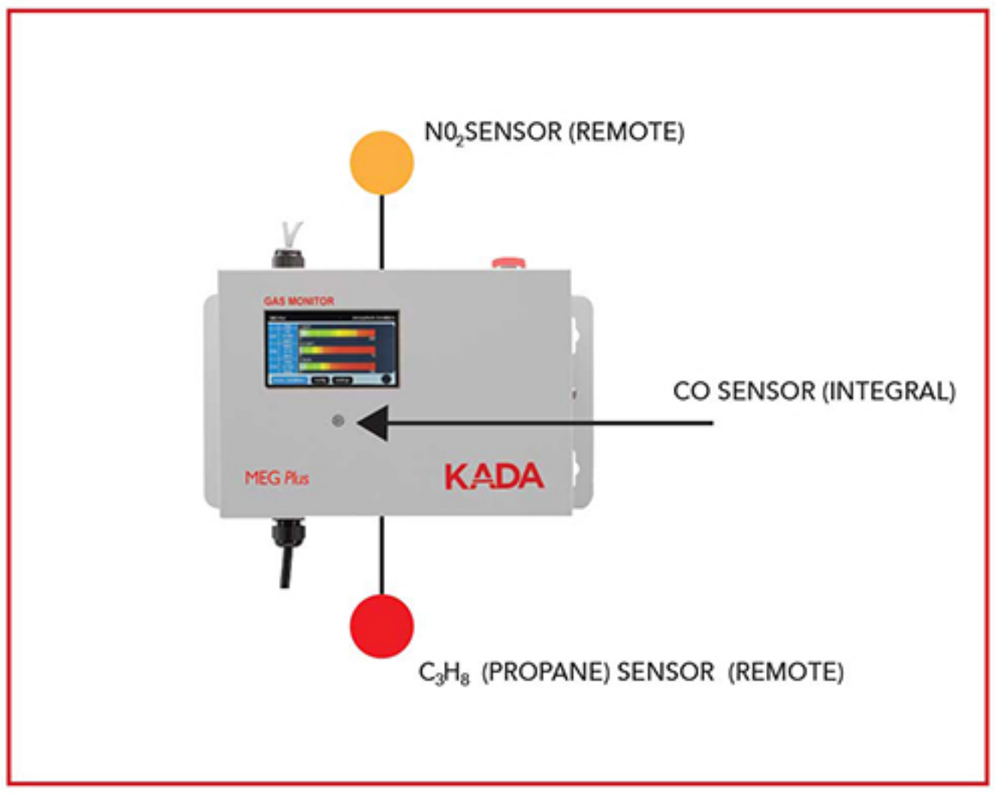
MEG *PLUS*

INTUITIVE, WALK THROUGH MENUS ON A TOUCHSCREEN LCD HELP USERS SET UP THEIR MACHINE IN NO TIME

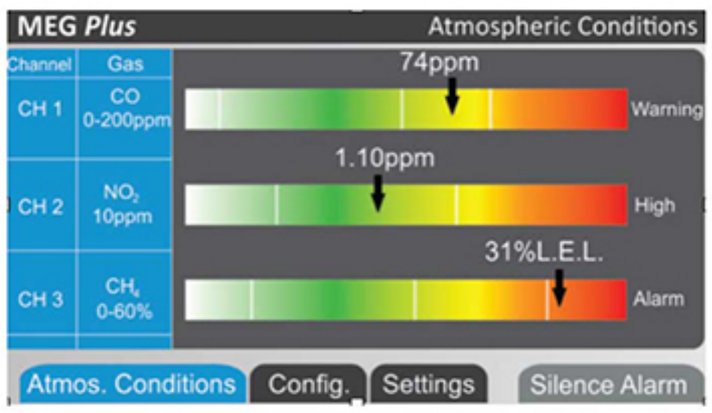
MEG *Plus* makes dual and triple-sensor gas detection possible in any of the following combinations: toxic-toxic, toxic-combustible, combustible-combustible, toxic-oxygen, combustible-oxygen or even toxic-combustible-oxygen.

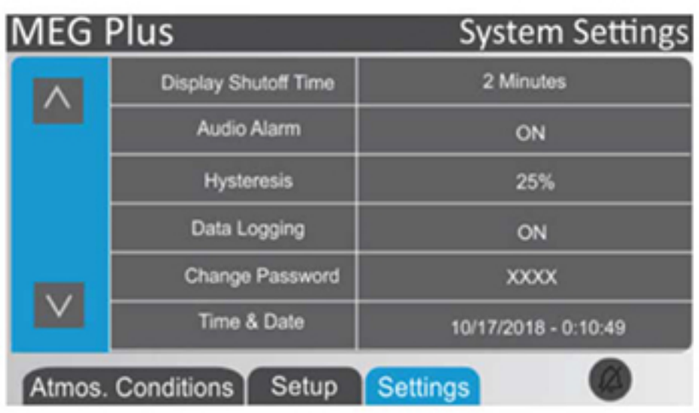
Although designed primarily as a standalone monitor, MEG *Plus* can also be configured to operate as an addressable device (node) within an integrated network via its RS485/MODBUS communication port.

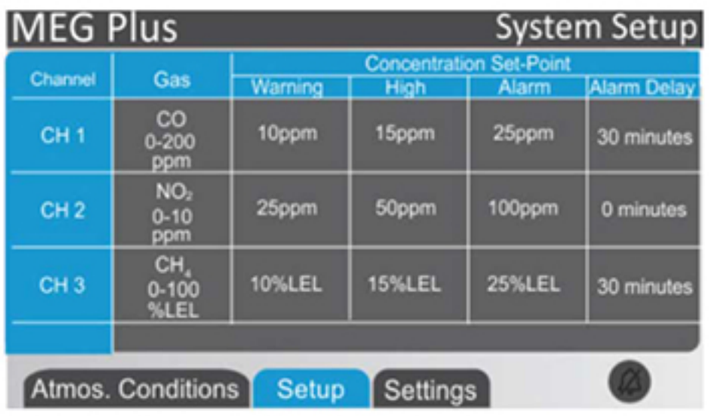
MEG *Plus* is a fail-safe device, whereby upon a fault condition, it will force all (or pre-selected) outputs to switch to their HIGH state, thus allowing alarm(s)to be activated and ventilation equipment to run at maximum design rate. The fail-safe mode will last until faults are rectified.



A typical application where MEG *Plus* is monitoring 3 different gases in a parking garage: CO (for gasoline-fuelled engines), NO_2 (for diesel-fuelled engines) and C_3H_8 (for flammable vapors).







MEG *Plus* combines time proven concepts in gas detection with modern technology offering sound solutions for personal safety and protection of property in a building environment.

CONTACT US:

Kada Industries
50 Steeles Ave E, Unit 10
Milton, ON L9T 4W9,
CANADA
438.883.9693
Email: info@kadaindustries.ca
Website: www.kadaindustries.com
(under construction)

REPRESENTED BY:

Distributed By:

VIKING TECHNOLOGIES LTD

Tel.: 604-298-6453
Email.: info@vikingtechnologies.ca
Website.: www.vikingtechnologies.ca

Although we strive to ensure accuracy in this data sheet, we are not responsible for any errors or omissions that may be encountered therein. This data sheet may not be used as a source for regulations, standards or guidelines. The contents of this data sheet are subject to change without notice.