Model 8081A

Toxic Gas Leak Detector

Description

Matheson's PortaSens Series of detectors provide compound specific leak detection of a wide variety of toxic gases and chemicals. Choose from twenty-three available sensors to suit your particular application. Each is optimized to provide maximum sensitivity with minimum interference from other gases.

A unique feature of the PortaSens detector is its ability to measure a variety of different gases by simply inserting the appropriate sensor for that gas. This means that one detector can be used to measure 23 different gases or vapors, reducing the need to purchase individual detectors for each type of gas. And sensors can be changed quickly and easily, without the need for calibration when a sensor change is made.

Sensors used in the PortaSens are our newest miniaturized smart sensor modules. Each sensor module is actually a sensor, amplifier, and memory module in one compact package. Because of this design, sensor modules can be calibrated independently and simply plugged into any detector, calibration data is loaded into the microprocessor so that no adjustments are needed. The result is that a detector can, for example, go from phosgene measurement to ammonia measurement is less than one minute.

The PortaSens is extremely useful for locating gas leakage from process piping, tubing, pumps, valves, storage cylinders or any other vessel containing toxic gas. It will also accurately measure ambient concentrations in confined spaces or open areas. The detachable sample inlet extension wand allows samples to be drawn from the precise spot being tested. A durable, waterproof casing protects the detector from harsh environments.

An internal miniature pump, which delivers a positive and constant sample flow, provides a sampling advantage over slower diffusion based units. A compact sensing manifold further enhances rapid response times.

A backlit LCD provides a clear, easy-to-read gas concentration readout in any ambient lighting condition. Three user-adjustable alarms give visual and audible indications of alarm conditions.
Low flow and low battery alarms are also provided.

Computer interface is a standard feature of the PortaSens. An RS-232 output allows stored data to be downloaded to a PC through an interface cable supplied with the unit. Software is provided to allow simple data transfer.

Each PortaSens Toxic Gas Leak Detector is supplied in its own padded storage case. Also included in the case are an alkaline battery, a NiCad battery, battery charger, a detachable sampling extension wand and a wall mounting bracket for those applications requiring the detector to be close at hand and ready for use.

Specifications

Range:	Dependent on sensor module used
Display:	Back-lit graphics liquid crystal display
Accuracy:	Sensor dependent but generally ± 5% of value (limited by cal. gas)
Sensitivity:	1% of sensor module range
Outputs:	RS-232 output of stored gas values 0-1 VDC analog (requires optional output cable)
Memory:	12,000 data points
Storage Interval:	Programmable from 1 minute to 60 minutes
Typical Capacity:	8 days at 1 minute storage interval
Alarms:	Three concentration alarms (caution, warning, and alarm with adjustable setpoints)
	Low flow and low battery alarms
	Alarms displayed on LCD & indicated by audible beeper
Power:	D cell battery. Alkaline recommended, 75 hours operation
	Internal rechargeable Nicad for backup power, 6 hours operation
	120 or 220 VAC chargers available
Operating Temp.:	-25° C to +55° C
Humidity:	0-95% Non-condensing
Detector Material:	Glass Filled Polycarbonate
Size:	3.5"(W) x 9"(H) x 5.5"(D) 89 mm x 229 mm x 140 mm
Shipping Weight:	7 lbs. (3.2 kg)

Model 8081 in Carrying Case

Model 8081A

Toxic Gas Leak Detector *(continued)*

Ordering Information

Gas	Range	Detector Unit with Sensor	Sensor Only
Ammonia	0-200 ppm	**8081A-15**	**MSEN-3610-15**
Arsine	0-1000 ppb	**8081A-28**	**MSEN-3624-28**
Bromine	0-2 ppm	**8081A-10**	**MSEN-3600-10**
Carbon Monoxide	0-200 ppm	**8081A-16**	**MSEN-3612-16**
Chlorine	0-20 ppm	**8081A-11**	**MSEN-3603-11**
Chlorine Dioxide	0-2 ppm	**8081A-12**	**MSEN-3604-12**
Diborane	0-1000 ppb	**8081A-29**	**MSEN-3626-29**
Fluorine	0-2 ppm	**8081A-13**	**MSEN-3606-13**
Germane	0-1000 ppb	**8081A-30**	**MSEN-3628-30**
Hydrogen	0-2000 ppm	**8081A-18**	**MSEN-3641-18**
Hydrogen Chloride	0-20 ppm	**8081A-21**	**MSEN-3617-21**
Hydrogen Cyanide	0-20 ppm	**8081A-22**	**MSEN-3618-22**
Hydrogen Fluoride	0-20 ppm	**8081A-23**	**MSEN-3619-23**
Hydrogen Selenide	0-1000 ppb	**8081A-31**	**MSEN-3630-31**
Hydrogen Sulfide	0-50 ppm	**8081A-24**	**MSEN-3620-24**
Nitric Oxide	0-200 ppm	**8081A-25**	**MSEN-3621-25**
Nitrogen Dioxide	0-20 ppm	**8081A-26**	**MSEN-3622-26**
Oxygen	0-25 %	**8081A-19**	**MSEN-3614-19**
Ozone	0-2 ppm	**8081A-14**	**MSEN-3608-14**
Phosgene	0-2 ppm	**8081A-20**	**MSEN-3615-20**
Phosphine	0-1000 ppb	**8081A-32**	**MSEN-3632-32**
Silane	0-10 ppm	**8081A-33**	**MSEN-3635-33**
Sulfur Dioxide	0-20 ppm	**8081A-27**	**MSEN-3623-27**

Note: Model 8081A provides 120 VAC charger. For 220 VAC charger, substitute 8082A