



# Gas Detection Solutions For Life

## Which VOC compounds can the Eagle 2 detect with its PID sensor?

The Eagle 2 is capable of monitoring most Volatile Organic Compounds. Two types of PID sensors can be used with the EAGLE 2, a low range (0 – 50 ppm) sensor and a high range (0 – 2,000 ppm) sensor. With either the low or high range sensor, the Eagle 2 has a PID **Relative Response** feature, which enables you to change the PID sensor's response to a different VOC gas on the fly. The Relative Response feature provides a list of pre-programmed response factors of 17 different VOC's. You can select from this list of gases, whose response is relative to the configured gas, normally isobutylene, which is programmed into the EAGLE 2's memory. For example, if the PID channel is setup for and calibrated to isobutylene (IBL), you can select isopropyl alcohol (IPA) from a gas list accessible from the PID Relative Response Screen in Display Mode so that the PID channel responds to sampled gas as if it were calibrated to isopropyl alcohol. There is no set up or calibration required.



### Use Response Factors For Specific VOC's

The Eagle 2's relative response feature includes 16 pre-defined gases and 1 gas that can be user defined using the Eagle 2 Maintenance Data Loader Program. If the target VOC is not on the Eagle 2's list of 17 pre-programmed Relative Responses, a user can go to RKI's chart of Response Factors to interpret the readings for the desired target VOC by multiplying the reading with the appropriate response factor. Use the link below to find RKI's Relative Response Factors. This chart is also located in the Eagle 2's Operators Manual.

[www.rkiinstruments.com/pages/eagle2.htm](http://www.rkiinstruments.com/pages/eagle2.htm)



Compound	Formula	Response Factor 10.6eV Lamp
Isobutane	C <sub>4</sub> H <sub>10</sub>	8.0
Isobutanol	C <sub>4</sub> H <sub>10</sub> O	3.5
Isobutyl acetate	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	2.3
Isobutyl acrylate	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	1.3
Isobutylene		1.0
Isobutyl		1.2
Isocyanate		NV
Isodecane		0.9
Isopentane		ZR
Isononane		1.5
Isooctane		1.1
Isooctanol		1.7
Isopentane		6.0
Isophorone		0.8
Isoprene		0.7
Isopropanol		4.4
Isopropyl acetate	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	2.2
Isopropyl chloroformate	C <sub>4</sub> H <sub>7</sub> O <sub>2</sub> Cl	1.6
Jet Fuel JP-4		0.8
Jet Fuel JP-5		0.7