











# RAE Systems Product Selection Guide

Product Category	Tubes	Single-Gas			Multi-Gas		
Page Location	Page 6	Page 7	Page 8	Page 9	Page 10	Page 11	Page 12
							
Product Name	Tubes and Pump	BadgeRAE	ToxiRAE II	ToxiRAE Plus PID	QRAE II	QRAE Plus	VRAE
Product Description	RAE Colorimetric Gas Detection Tubes	Zero maintenance two-year Gas Detector for H <sub>2</sub> S or CO	Reusable Single-Gas Personal Protection Monitor	PID Personal Gas Monitor with Rechargeable Battery	Compact Multi-Gas Detector for H <sub>2</sub> S, CO, O <sub>2</sub> , Combustibles	4-Gas Confined Space Monitor	Hand-held 5-Gas Survey Monitor
Measurements & Range							
Combustibles	Hydrocarbons (HC): 50 to 1,000 ppm	—	—	—	1 to 100% LEL	1 to 100% LEL	1 to 100% LEL 1 to 100% VOL
O <sub>2</sub>	—	—	0.1 to 30% VOL	—	0.1 to 30% VOL	0.1 to 30% VOL	0.1 to 30% VOL
CO, H <sub>2</sub> S	CO: 5 ppm to 4% (5 Tubes) H <sub>2</sub> S: 0.2 ppm to 40% (10 Tubes)	CO: 1 to 300 ppm H <sub>2</sub> S: 1 to 100 ppm (no concentration displayed)	CO: 1 to 500 ppm or 10 to 2,000 ppm H <sub>2</sub> S: 1 to 100 ppm	—	CO: 1 to 1,000 ppm H <sub>2</sub> S: 1 to 100 ppm	CO: 1 to 500 ppm H <sub>2</sub> S: 1 to 100 ppm	CO: 1 to 1,500 ppm H <sub>2</sub> S: 1 to 500 ppm
Other Sensors	More than 30 gases available	—	NH <sub>3</sub> , Cl <sub>2</sub> , ClO <sub>2</sub> , HCN, NO, NO <sub>2</sub> , PH <sub>3</sub> , SO <sub>2</sub>	—	SO <sub>2</sub>	SO <sub>2</sub> , NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub>	SO <sub>2</sub> , NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub>
PID	—	—	—	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm	—	—	—
Radiation	—	—	—	—	—	—	—
Features							
 Wireless	—	—	—	—	—	Yes	—
GPS	—	—	—	—	—	—	—
Datalogging	—	—	Peak logging	4,000 data points	60,000 data points	16,000 data points	16,000 data points
AutoRAE	—	—	—	—	Yes	Yes	—
Certifications	—	UL, cUL, ATEX, IECEx	UL, cUL, ATEX, IECEx	UL, cUL, ATEX	cCSAus, ATEX, IECEx (pending)	UL, CSA, ATEX	UL, cUL
Sampling Mode	Manual pump	Diffusion	Diffusion	Diffusion with fan	Diffusion	Diffusion or pump	Pump
 AutoRAE Compatible	—	—	—	—	Yes	Yes	—

Multi-Gas Plus PID			PID		Compound-Specific		Autocal Station
Page 13	Page 14	Page 15	Page 16	Page 17	Page 18	Page 19	Page 20
							
<b>EntryRAE</b>	<b>MultiRAE Plus</b>	<b>MultiRAE IR</b>	<b>MiniRAE 3000</b>	<b>ppbRAE 3000</b>	<b>UltraRAE</b>	<b>ChemRAE</b>	<b>AutoRAE</b>
4-Gas Confined Space Entry Monitor, with Photoionization (PID) Detector	5-Gas Monitor with VOC Detection	5-Gas Monitor with VOC and CO <sub>2</sub> Detection	Hand-held VOC Monitor	Hand-held ppb VOC Monitor	Specific Compound Monitor	Wireless Chemical Warfare Agent Detector	Automated Bump Test and Calibration System
1 to 100% LEL 1 to 5% VOL	1 to 100% LEL	1 to 100% LEL	—	—	—	—	Yes
0.1 to 30% VOL	0.1 to 30% VOL	0.1 to 30% VOL	—	—	—	—	Yes
CO: 1 to 500 ppm H <sub>2</sub> S: 1 to 100 ppm	CO: 1 to 500 ppm H <sub>2</sub> S: 1 to 100 ppm	CO: 1 to 500 ppm H <sub>2</sub> S: 1 to 100 ppm	—	—	—	—	Yes
—	SO <sub>2</sub> , NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub>	SO <sub>2</sub> , NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub> , CO <sub>2</sub>	—	—	Specific: Benzene: 0.1 to 200 ppm Butadiene: 0.1 to 200 ppm	CWA Library TIC Library	No
10.6 eV: 1 to 1,000 ppm	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm	10.6 eV: 0.1 to 15,000 ppm 9.8 eV: 0.1 to 5,000 ppm 11.7 eV: 0.1 to 2,000 ppm	10.6 eV: 1 ppb to 10,000 ppm 9.8 eV: 10 ppb to 5,000 ppm 11.7 eV: 10 ppb to 2,000 ppm	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm 11.7 eV: 0.1 to 2,000 ppm	—	Yes
—	—	—	—	—	—	—	No
—	Yes	Yes	Yes	Yes	—	Yes	—
—	—	—	When used with RAELink3	When used with RAELink3	—	—	—
36,000 data points	24,000 data points	24,000 data points	520,000	520,000	3,000 data points	—	—
Yes	Yes	Yes	Yes	Yes	—	—	—
UL, cUL, ATEX	UL, cUL, ATEX	—	cCSAus, ATEX (pending)	cCSAus, ATEX (pending)	UL, cUL, ATEX	—	—
Pump	Pump	Pump	Pump	Pump	Pump	Pump	—
Yes	Yes	Yes	Yes	Yes	—	—	—

# RAE Systems Product Selection Guide (CONTINUED)

Product Category	Area Monitoring					Fixed	
Page Location	Page 21	Page 22	Page 23	Page 24	Page 25	Page 26	Page 27
							
Product Name	<b>MeshGuard</b>	<b>SentryRAE Steel</b>	<b>AreaRAE Steel</b>	<b>RAELink2</b>	<b>SolarRAE</b>	<b>RAEGuard LEL</b>	<b>RAEGuard IR</b>
Product Description	Wireless Gas Detector with Extended Battery Life	Multi-Channel, Compact, and Transportable Multi-Gas Monitor	Rapidly Deployable Wireless Multi-Gas Monitor	Portable Wireless Modem—Remote Host	Remote Alternative Power Source	Fixed Catalytic Gas Detector & Transmitter	Fixed Infrared Gas Detector & Transmitter
Measurements & Range							
Combustibles	Available January, 2008	1 to 100% LEL	1 to 100% LEL	—	—	1 to 100% LEL	HC (C <sub>3</sub> H <sub>8</sub> ) 1 to 100% LEL Methane (CH <sub>4</sub> ) 1 to 100% LEL
O <sub>2</sub>	—	0.1 to 30% VOL	0.1 to 30% VOL	—	—	—	—
CO, H <sub>2</sub> S	CO: 1 to 500 ppm CO: 10 to 2,000 ppm H <sub>2</sub> S: 1 to 100 ppm	CO: 1 to 500 ppm H <sub>2</sub> S: 1 to 100 ppm	CO: 1 to 500 ppm CO: 10 to 20,000 ppm H <sub>2</sub> S: 1 to 100 ppm	—	—	—	—
Other Sensors	—	SO <sub>2</sub> , NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub>	SO <sub>2</sub> , HF, NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub> , HCl	—	—	—	—
PID	—	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm	—	—	—	—
Radiation	—	—	Optional Gamma 1 to 4,000 1MR/h	—	—	—	—
Features							
Wireless	Yes 2.4 GHz Mesh Network	Yes (With external RAELink2)	Yes Built-in 869 or 900 MHz	Yes Built-in 869 or 900 MHz	Yes	—	—
GPS	—	—	Yes	—	—	—	—
Datalogging	—	20,000 data points	20,000 data points	—	—	—	—
Outputs	—	—	—	N/A	—	4-20mA RS-485 2 dry contacts	4-20mA RS-485 2 dry contacts
Certifications	UL, cUL, C1 D1, ATEX, IECEx (all pending)	UL	cCSAus, C1 D2, ATEX, CE iP53	CE	—	UL, ATEX	UL, ATEX
Sampling Mode	Diffusion	Pump	Pump	N/A	—	Diffusion	Diffusion

Fixed		Radiation			Decision Support Tools		
Page 28	Page 30	Page 32	Page 33	Page 34	Page 35	Page 36	Page 37
							
<b>RAEGuard EC</b>	<b>RAEGuard PID</b>	<b>GammaRAE II R</b>	<b>NeutronRAE II</b>	<b>DoseRAE</b>	<b>PlumeRAE</b>	<b>HazRAE</b>	<b>LifeShirt</b>
Fixed Toxic Gas Detector & Transmitter	Fixed PID Detector & Transmitter	Radiation Detector and Dosimeter in one	Personal Radiation Detector	Electronic Personal Dosimeter	Plume Measurement and Decision Support	Chem/Bio/WMD/Rad Decision Support	Real-Time Life Sign Monitoring of First Responders & Industrial Personnel
—	—	—	—	—	1 to 100% LEL	—	—
0 to 30% VOL	—	—	—	—	0.1 to 30% VOL	—	—
CO: 1 to 1,000 ppm H <sub>2</sub> S: 1 to 300 ppm	—	—	—	—	CO: 1 to 500 ppm CO: 10 to 20,000 ppm H <sub>2</sub> S: 1 to 100 ppm	—	—
SO <sub>2</sub> : 0.1 to 150 ppm	—	—	—	—	SO <sub>2</sub> , HF, NO, NO <sub>2</sub> , Cl <sub>2</sub> , HCN, NH <sub>3</sub> , PH <sub>3</sub> , HCl	96,000 materials MHE electronic library	Heart rate, breath rate, skin temperature, activity posture
—	10.6 eV: 10 to 20 ppm 0.1 to 100 ppm 1 to 1,000 ppm 9.8 eV: 10 to 20 ppm 0.1 to 100 ppm 1 to 1,000 ppm	—	—	—	10.6 eV: 0.1 to 2,000 ppm 9.8 eV: 0.1 to 2,000 ppm	—	—
—	—	Gamma 1MR/h to 10 R/h	Gamma: 1MR/h to 4,000 R/h Neutron: 1 to 100Cps	Gamma 1MR/h to 500 R/h	Optional Gamma 1 to 4,000 1MR/h	692 isotopes	—
—	—	Yes	Yes	—	Yes Built-in 869 or 900 MHz	Yes Internet enabled	Yes Built-in 869 or 900 MHz
—	—	—	—	—	Yes	—	—
—	—	60,000 points	30,000 points	200 points	20,000 data points	Saves previous search results	—
4-20mA RS-485 2 dry contacts	4-20mA RS-485 2 dry contacts	N/A	N/A	N/A	—	SD card or connect to PC	N/A
UL, cUL, ATEX	UL, cUL, ATEX	Intrinsically Safe (cCSAus, ATEX) CE iP67	Intrinsically Safe (cCSAus, ATEX) CE iP67	CE iP54	—	US DHS Safety Act: Effective	CE
Diffusion	Pump	Continuous	Continuous	Continuous	Pump	—	N/A