

Fixed Systems Solutions

24
7 Continuous Gas Monitoring



INSTRUMENTS

Controllers



Beacon 110



Beacon 200



Beacon 410A



Beacon 800

- 1-8 Channel fixed systems controllers
- Digital readout
- Weather proof NEMA 4X enclosure
- Audible alarm
- Alarm reset button
- Optional strobe & battery backup

Alarm levels per channel
Channels
Relays per channel
Common relays
Direct connect sensors

	Alarm levels per channel	Channels	Relays per channel	Common relays	Direct connect sensors
Beacon 110	1	2	3	N/A	Yes
Beacon 200	2	2	2	3	Yes
Beacon 410A	4	3	3	5	Yes
Beacon 800	8	2	2	3	No
RM-5000	Up to 12	2	2	3	Yes

Controller



S2



M2A Transmitter



Remote Mount Sensor with Cal Cup



RKI's diffusion style remote mount detectors allow for easy calibrations in difficult access areas.



Alarm Relays Activate Ventilation / Exhaust Systems



RM-5000

Sensors & Transmitters



Direct Connect Sensor

- Cost Effective
- Water repellent sensor coating
- Explosion Proof



S2 Transmitter

- Transmitters 4-20mA output
- Explosion Proof
- Stainless steel options



M2A Transmitter

- Operates with or without controller
- OLED display
- 2 programmable alarm relays
- Non intrusive calibration
- 4-20mA and Modbus outputs



35-3001 Sample Draw

- LEL, O₂, H₂S, CO, CO₂, & H₂ available
- Multigas versions
- Internal sample pump with 100' range



SD-1 Series

- Explosion proof, IP-65/67
- Monitor ppm or % LEL ranges
- Available for H₂, IPA, ACN, and ETO

Controller



Direct Connect



2 Wire
4 Wire

S2



2 Wire
(Most Gases)
3 Wire (IR/LEL)

M2A



3 Wire

GD-K88Ai



2 Wire

GD-70D



3 Wire

500' max 18 AWG

2,500' 18 AWG / 5,000' 16 AWG / 8,000' 14 AWG

2,500' 18 AWG / 5,000' 16 AWG / 8,000' 14 AWG

2,500' 18 AWG / 5,000' 16 AWG / 8,000' 14 AWG

2,500' 18 AWG / 5,000' 16 AWG / 8,000' 14 AWG

Toxic & Specialty Transmitters



Smart Sample Draw

GD-70D Intelligent Sample Draw

- Monitor combustibles, O₂, and a wide range of toxics
- Plug and play intelligent sensors retain calibration and sensor data
- Common platform (main unit / sensor / pump) for all detection methods
- Universal main unit (all sensor types)
- No internal tubing (main unit) / No coil (pump)
- Front access, no tools required, easy sensor and pump replacement
- Large size LCD screen
- Various communication methods available (4-20mA, LonWorks, and PoE)



Toxic Diffusion

GD-K88Ai Toxic Diffusion Sensor / Transmitter

- Diffusion style head
- Digital readout of gas name and concentration
- External control buttons for easy maintenance
- Intrinsically safe design
- Quick response sensors
- Many toxic sensors to choose from
- 3 to 5 year typical sensor life
- Low cost of ownership

Indoor Transmitters

OX-600 or EC-600 With Optional Remote Sensor

- Operates with or without a controller
- Tri-color visual alarm display:
 - Green=Normal, Yellow=Alarm 1, Red=Alarm 2
- Large easy to read digital display
- Three power options: 115 VAC, 24 VDC, or 2 AA alkaline
- Operates up to 1 year on one set of AA alkaline batteries

OX-600 (O₂)

0 ~ 25 vol%



Remote Sensor



EC-600 (CO)

0 ~ 150 ppm (1ppm / digit)



Digester Gas Monitor

Digester Process Gas Monitor

- Monitors gases produced by digester process
- Corrosion resistant design
 - Housing designed for extreme environments
 - Internal construction for extreme samples
 - Flow system designed to handle corrosive wet samples
- Sample system designed to handle high humidity
- Accurately measures gases with high levels of H₂S present



Horns & Strobes

Non Hazardous Location

Lights or Strobes with Horns 4 wire (Strobe and Horn Wired Separately)



Horn with Strobe
115 VAC / 24 VDC, 4 Wire
Amber, Blue or Red



Horn with Strobe
NEMA 3R, 4 Wire, 24 VDC
Amber or Red

Lights or strobes with horns 2 wire



Flashing Alarm Light with Horn
115 VAC / 24 VDC
Red, Blue or Amber



Strobe with Horn
115 VAC / 24VDC, NEMA 4X / 3R
Amber, Blue or Red

Lights, Strobes, or Horns



Rotating Alarm 120V
Green, Amber, Red or Blue



Strobe NEMA 3R / 4X Red Housing
Amber, Red or Blue



24 VDC Vibrating Horn

Hazardous Location

Class I Div 1 Strobes or Horns



Strobe Light
115 VAC / 24 VDC
Clear, Amber, Blue,
Green or Red



Horn 115 VAC

Class I Div 2 Strobes or Horns



Strobe Light
115 VAC / 24 VDC
Red or Amber



Horn 115 VAC

Measurable Gases	Symbol	TLV / TWA	Range	Diffusion Detector	Sample Draw
Acetic Acid	CH ₃ COOH	1.5 PPM	30 PPM	–	GD-70D
Acrylonitrile (ACN)	C ₃ H ₃ N	2 PPM	0 - 1,000 PPM	SD-1	–
Ammonia	NH ₃	25 PPM	75 PPM / 400 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D
Arsine	AsH ₃	0.05 PPM	0.2 / 1.5 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D
Benzene	C ₆ H ₆	0.5 PPM	various PPM	GD-A80V	GD-70D
Boron Trichloride	BCl ₃	HCl C 5 PPM	15 PPM	GD-K88Ai	GD-70D
Boron Trifluoride	BF ₃	HF C 3 PPM	9 PPM	–	GD-70D
Bromine	Br ₂	0.1 PPM	1 PPM	GD-K88Ai	GD-70D
Butane	C ₄ H ₁₀	LEL=1.9%	100% LEL	DC / S2 / M2A / GD-A80 / PS2	35-3001 / GD-D58 / GD-70D
Carbon Dioxide	CO ₂	5,000 PPM	5,000 PPM / 5,20,50,60,100%	RI-215A / DC / S2 / M2A	RI-215D / 35-3001
Carbon Monoxide	CO	25 PPM	30 / 75 / 150 / 300 / 500 PPM	DC / S2 / M2A / M Series / GD-K88Ai / EC-600	GD-70D / 35-3001-CO
Chlorine	Cl ₂	0.5 PPM	3 PPM / 10 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D
Chlorine Dioxide	ClO ₂	0.1 PPM	1 PPM	DC / S2 / M2A	–
Chlorine Trifluoride	ClF ₃	0.1 PPM	0.6 PPM	–	GD-70D
Combustibles LEL	LEL	–	100% LEL	DC / S2 / M2A / GD-A80 / PS2	35-3001 / GD-D58 / GD-70D
Combustibles PPM	PPM	–	various PPM	GD-A80V	GD-70D / GD-D58V
Diborane	B ₂ H ₆	0.1 PPM	0.3 PPM	GD-K88Ai	GD-70D
Dichlorosilane	DCS	HCl 5 PPM	15 PPM	GD-K88Ai	GD-70D
Disilane	Si ₂ H ₆	5 PPM	15 PPM	GD-K88Ai	GD-70D
Ethylene Oxide (ETO)	C ₂ H ₄ O	1 PPM	0 - 1,000 PPM	SD-1	–
Fluorine	F ₂	1 PPM	3 PPM	–	GD-70D
Germane	GeH ₄	0.2 PPM	0.2 / 0.8 PPM	–	GD-70D
Halocarbons	HCFC	various	0 - 5,000 (typ)	–	RI-257 / GD-70D
Hexane	C ₆ H ₁₄	–	2,000 PPM	GD-A80V	GD-70D / GD-D58V
Hexane	C ₆ H ₁₄	LEL = 1.1%	100% LEL	DC / S2 / M2A / PS2 / GD-A80	35-3001 / GD-D58
Hydrocarbon LEL	LEL	–	100% LEL	DC S2 / M2A / GD-A80 / PS2	35-3001-LEL / GD-D58 / GD-70D
Hydrocarbon PPM	PPM	–	various PPM	GD-A80V	GD-70D / GD-D58V
Hydrogen LEL	H ₂	LEL = 4%	100% LEL	DC / S2 / M2A / GD-A80 / H2 Specific / PS2	GD-70D / GD-D58
Hydrogen PPM	H ₂	–	10 / 2,000 PPM	S2 / GD-A88V-H2 / H2 Specific	GD-70D / GD-D58V
Hydrogen Bromide	HBr	C 3 PPM	9 / 10 PPM	GD-K88Ai	GD-70D
Hydrogen Chloride	HCl	C 5 PPM	10 / 15 PPM	GD-K88Ai	GD-70D
Hydrogen Cyanide	HCN	STEL C 4.7 PPM	15 / 30 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D
Hydrogen Fluoride	HF	C 3 PPM	9 PPM	–	GD-70D
Hydrogen Iodide	HI	–	5 PPM	–	GD-70D
Hydrogen Sulfide	H ₂ S	0.1 / 1 PPM	1 / 30 / 100 PPM	DC / S2 / M2A / M-Series / GD-K88Ai	GD-70D / 35-3001-H2S
Iodine	I ₂	STEL C 0.1 PPM	1 PPM	–	GD-70D
Isobutane	C ₄ H ₁₀	LEL = 1.8%	100% LEL	DC / S2 / M2A / GD-A80 / SD-1 / PS2	35-3001 / GD-D58 / GD-70D
Isopropyl Alcohol (IPA)	CH ₃ CHOHCH ₃	400 PPM	10 / 2,000 PPM	GD-A80V / SD-1	GD-70D / GD-D58V
Methane	CH ₄	LEL = 5%	100% LEL	DC / S2 / M2A / GD-A80 / PS2	GD-70D / GD-D58
Nitric Acid	HNO ₃	2 PPM	20 PPM	–	GD-70D
Nitric Oxide	NO	25 PPM	100 PPM	GD-K88Ai	GD-70D
Nitrogen Dioxide	NO ₂	3 PPM	9 PPM / 15 PPM	GD-K88Ai	GD-70D
Nitrogen Tetraoxide	N ₂ O ₄	NO ₂ 3 PPM	15 PPM	–	GD-70D
Nitrogen Trifluoride	NF ₃	10 PPM	30 PPM	–	GD-70D
Oxygen	O ₂	–	25% / 40%	DC / S2 / M2A / OX-600	35-3001-OXY / GD-70D
Ozone	O ₃	0.1 PPM	0.6 PPM	GD-K88Ai	GD-70D
Pentane	C ₅ H ₁₂	LEL = 1.5%	100% LEL	DC / S2 / M2A / GD-A80 / PS2	35-3001 / GD-D58
Phosphine	PH ₃	0.3 PPM	1 / 2 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D
Propane	C ₃ H ₈	LEL = 2.1%	10 PPM / 100% LEL	DC / S2 / M2A / GD-A80 / PS2	35-3001 / GD-D58 / GD-70D
Silane	SiH ₄	5 PPM	0.5 / 15 PPM	GD-K88Ai	GD-70D
Silicon Tetrachloride	SiCl ₄	HCl C 5 PPM	15 PPM	GD-K88Ai	GD-70D
Silicon Tetrafluoride	SiF ₄	HF C 3 PPM	9 PPM	–	GD-70D
Sulfur Dioxide	SO ₂	.25 PPM	1 / 6 / 10 / 15 / 30 PPM	DC / S2 / M2A / GD-K88Ai	GD-70D
Sulfur Tetrafluoride	SF ₄	HF C 3 PPM	9 PPM	–	GD-70D
Tetraethyl Orthosilicate	TEOS	10 PPM	15 PPM	–	GD-70D
Trichlorosilane	TCS	HCl C 5 PPM	15 PPM	–	GD-70D
Trimethoxy Phosphate	TMP	2 PPM	15 PPM	–	GD-70D
Trimethoxyboron	TMB	–	500 PPM	–	GD-70D
Toluene	C ₆ H ₅ CH ₃	20 PPM	various PPM	GD-A80V	GD-70D / GD-D58V
Tungsten Hexafluoride	WF ₆	HF C 3 PPM	9 PPM	–	GD-70D
1 1 1-Trichloroethane	C ₂ H ₃ Cl ₃	350 PPM	0 - 2,000 PPM	GD-A80V	GD-D58V

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