

**RIKEN****Non-Dispersive Infrared Ray Absorption (NDIR)****SMART IR GAS DETECTOR / TRANSMITTER****SD-800 series** (Patent pending)**SD-805RI** (Diffusion type)**SD-805RID** (Sample drawing type)**SD-805SC-RI** (Remote type)

- MED approved (No.12807/A0EC)
- TIS approved
- KIMM approved

**SD-801RI** (diffusion type)

- UL approved

**FEATURES**

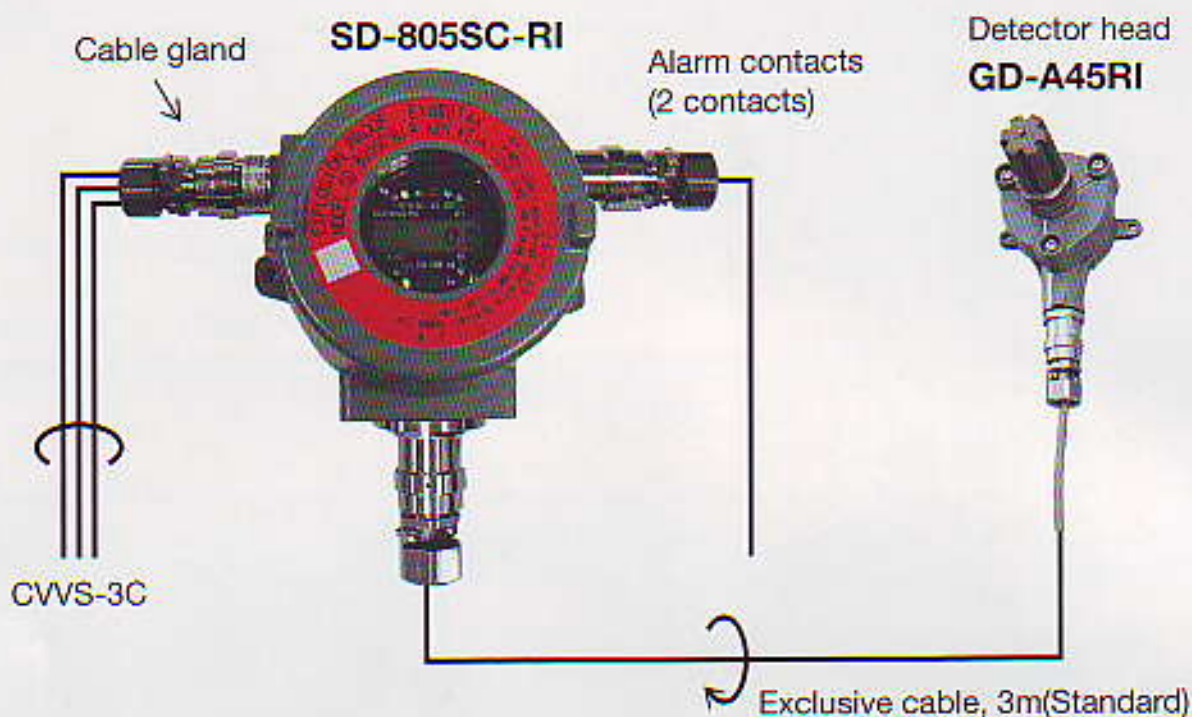
- Explosion proof housing
- Non-Dispersive Infrared Ray Absorption (NDIR) method applied
- \*High selectivity and high reliability
- Remote detector connection capability
- Direct digital readout
- Back-light LCD display
- 4-20mA linear outputs
- Dual alarm contacts
- Self-diagnosis by microprocessor
- Simple adjustment with magnetic control key
- Automatic zero correction function
- Small, rugged, dust and weather proof construction

**RIKEN FINE****RIKEN KEIKI**

# SMART IR GAS DETECTOR / TRANSMITTER

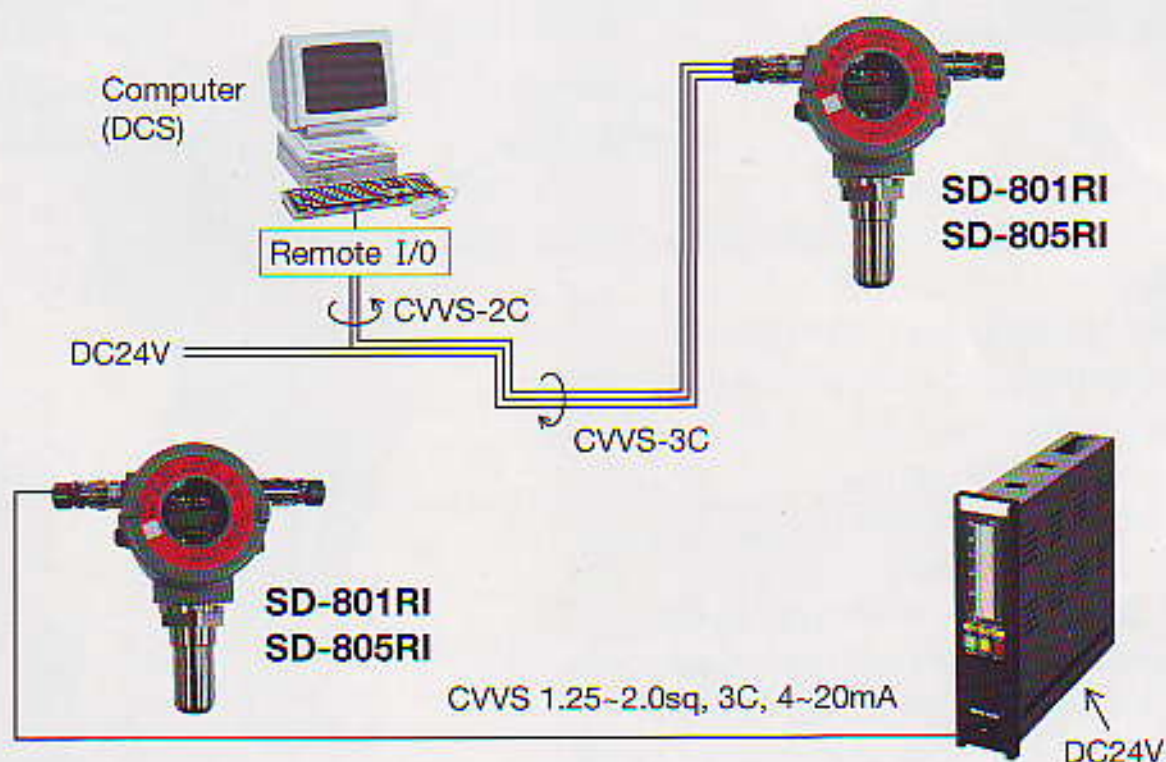
## ■ System Application

### ● Application 1 — Remote detector head type —



### ● Application 2 — Integrated diffusion sensor —

- Connection example with DCS in control room



# MODEL

SD-801RI (Diffusion type) / SD-805RI (Diffusion type)  
SD-805RID (Sample drawing type) / SD-805SC-RI (Remote type)

## ■ Gas Detected

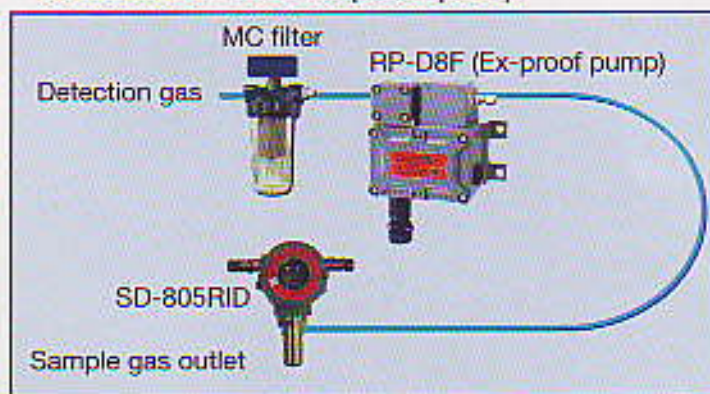
Gas	Lower Explosive Limit	Detection range	Resolution (1 digit)
Methane CH <sub>4</sub>	5.0 vol%	0~100% LEL	0.5%LEL
		0~100 vol. %	0.5vol. %
Ethylene C <sub>2</sub> H <sub>4</sub>	2.7 vol%	0~100% LEL	0.5%LEL
Ethane C <sub>2</sub> H <sub>6</sub>	3.0 vol%	0~100% LEL	0.5%LEL
Propane C <sub>3</sub> H <sub>8</sub>	2.0 vol%	0~100% LEL	0.5%LEL
Iso-Butane i-C <sub>4</sub> H <sub>10</sub>	1.8 vol%	0~100% LEL	0.5%LEL
n-Hexane n-C <sub>6</sub> H <sub>14</sub>	1.2 vol%	0~100% LEL	0.5%LEL

### ● Application 3 — Sample drawing type —

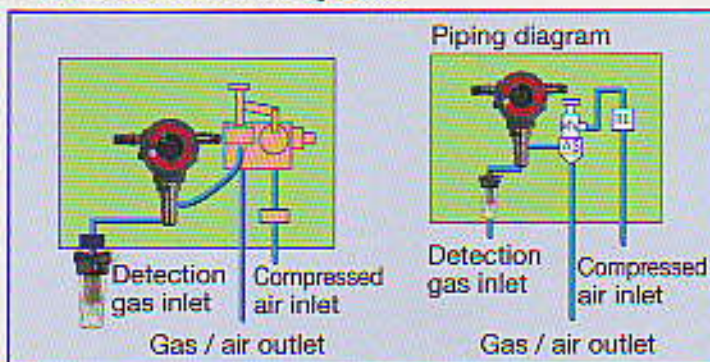


SD-805RID

#### • Combination with ex-proof pump



#### • Combination with ejector

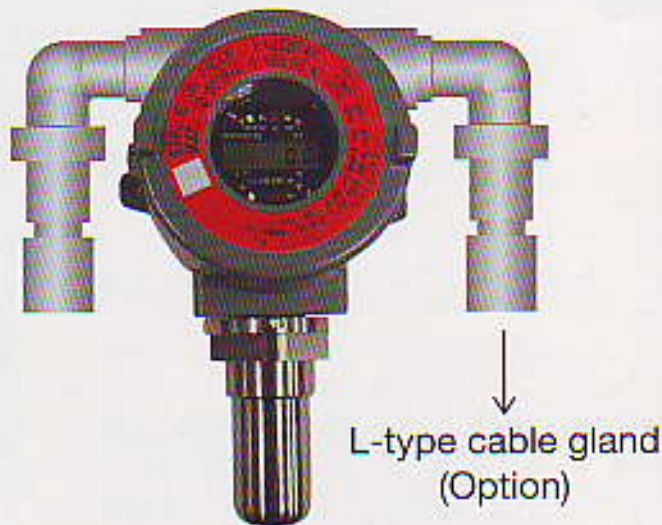


**Model : SD-805RI** (Diffusion type)

**SD-805RID** (Sample drawing type)

**SD-805SC-RI** (Remote type)

**SD-801RI** (Diffusion type)



■ **Standard accessories**

- Fuse (1A) 1 each
- Magnetic control key 1 each

■ **Optional accessories**

- Box type weather proof cover for detector / transmitter
- Weather proof cover for GD-A45RI
- Pole stand

● **SPECIFICATIONS**

MODEL	SD-805RI	SD-805RID	SD-805SC-RI/GD-A45RI	SD-801RI
Detection gas	Combustible gas (General combustible gas or Methane)			
Detection principle	Non-Dispersive Infrared Ray Absorption (NDIR)			
Detection range	0-100%LEL			0-100%LEL,
Preset alarm levels	1 <sup>st</sup> : 25% LEL, 2 <sup>nd</sup> : 50%LEL (Adjustable in range of 10-100%LEL)			
Response time	Within 30 seconds (T60)			
Operation temperature and humidity	-10°C--+40°C, below 95%R.H. (Non-condensing)			
Alarm contacts	Gas alarm : Normally - open or Normally -close for both 1 <sup>st</sup> and 2 <sup>nd</sup> alarms, rated 1A@30VDC Trouble alarm : Normally - open or Normally -close, rated 1A@30VDC			
Output signal	Gas concentrations..... 4-20mADC, linear (Max 22mADC with limiter) Malfunction..... 0.5mADC Maintenance mode & initial clear time... 2.5mADC			
Power requirement	24VDC±10%, 4W max.			
Approval code	Exd II BT4X			
Approvals	MED, KIMM, TIIS ( Technology Institution of Industrial Safety in Japan )			UL
Signal transmission distance & applicable cable	CVVS (1.25sq.) cable... within 1.25km CVVS (2.0sq.) cable..... within 2km			
Dimensions	124(W) × 233(H) × 115(D)mm		Transmitter : 124(W) × 218(H) × 115(D)mm GD-A45RI : 126(W) × 129(H) × 177(D)mm	123(W) × 183(H) × 109(D)mm
Weight	Approx. 3.5kg	Approx. 4.0kg	Transmitter : Approx. 3.3kg GD-A45RI : Approx. 1.7kg	Approx. 1.9kg

● Specifications subject to change without notice.



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