

RIKEN

Non-Dispersive Infrared Absorption (NDIR)

**SMART TRANSMITTER/
INFRARED GAS DETECTOR****MODEL****SD-703RI****SD-703SC-RI** <Remote type>

DIGITAL DISPLAY

Flame-proof
enclosuresFor monitoring of Methane (CH₄) or Hydrocarbon (HC)Infrared
gas detector

Enlarged view

Features

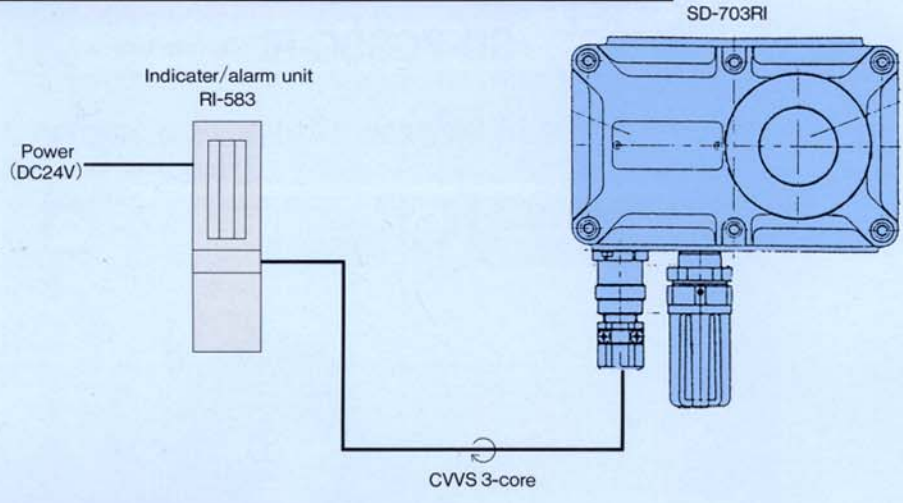
- Small, Lightweight durable design
- Easy adjustment through display window using magnetic control key
- One-person automatic calibration
- Self-diagnostics and zero follower function
- Flame-proof enclosures (ExdII BT4)
- Stable reading and high selectivity
- Negligible interference from inert gases, CO, and H₂

**RIKEN KEIKI CO.,LTD.**

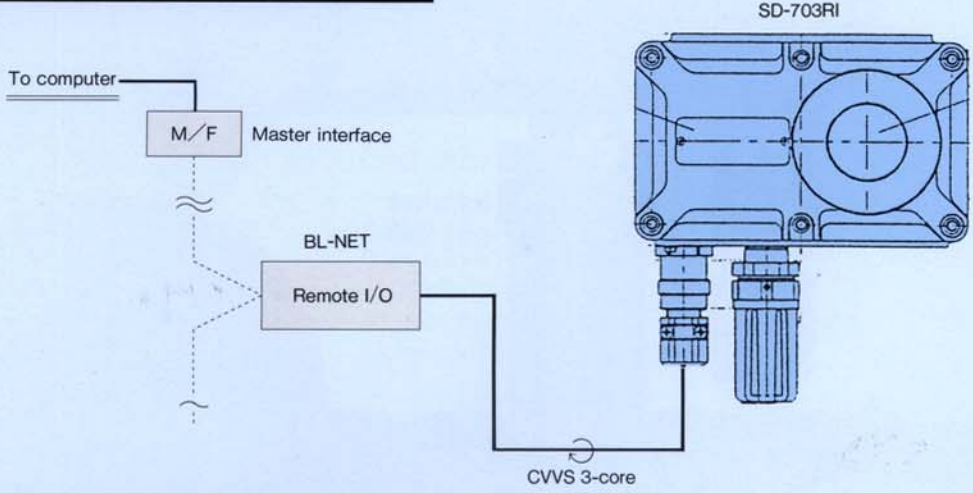
(((VERSATILE CONNECTION CAPABILITY)))

SYSTEM APPLICATION

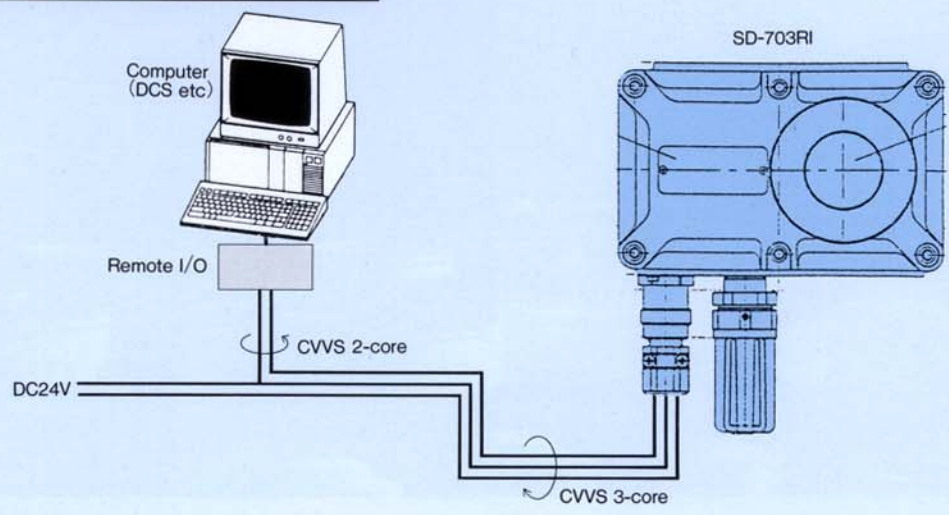
Connection between SD-703RI and indicator / alarm unit RI-583



Connection between SD-703RI and BL-NET



Connection between SD-703RI and DCS

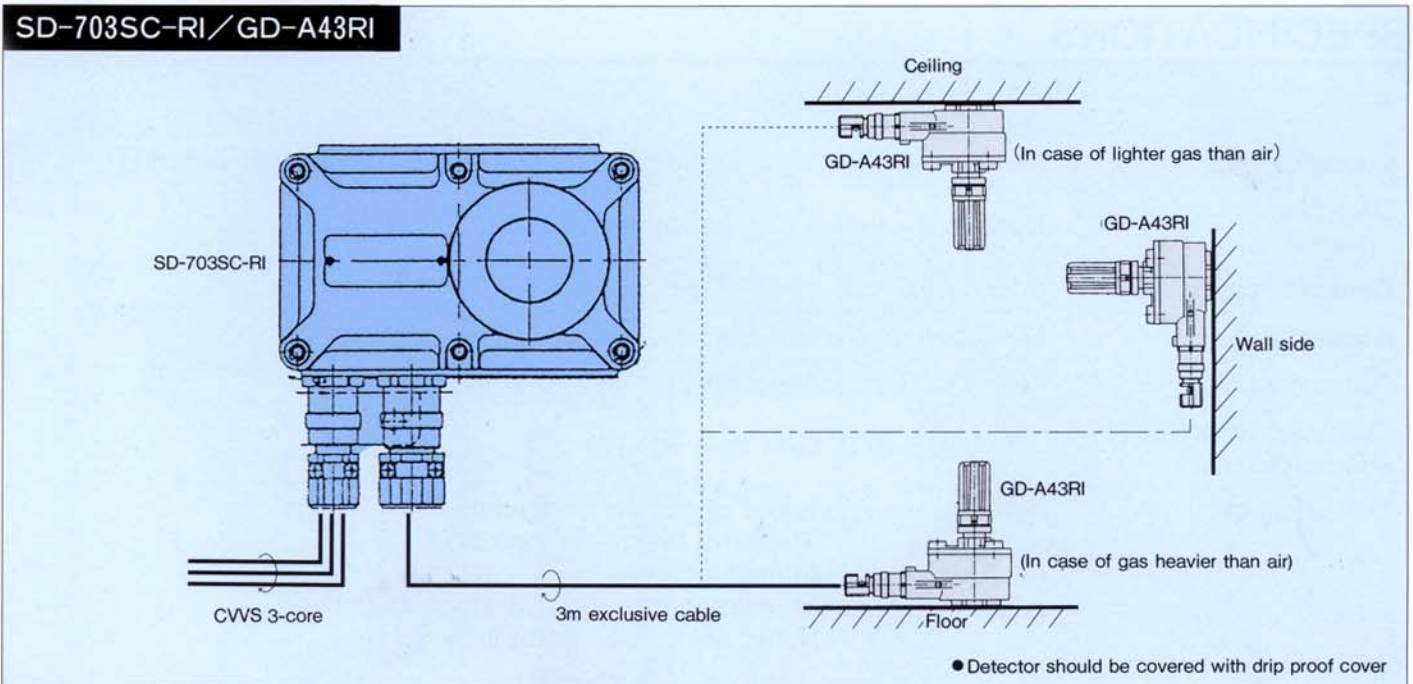


Measurable gas and ranges

Measurable gas		Measurable range	Minimum graduation / digit
Methane	(CH ₄)	0~100%LEL	0.5%LEL
Ethane	(C ₂ H ₆)	0~100%LEL	0.5%LEL
Propane	(C ₃ H ₈)	0~100%LEL	0.5%LEL
i-Butane	(i-C ₄ H ₁₀)	0~100%LEL	0.5%LEL
n-Hexane	(n-C ₆ H ₁₄)	0~100%LEL	0.5%LEL

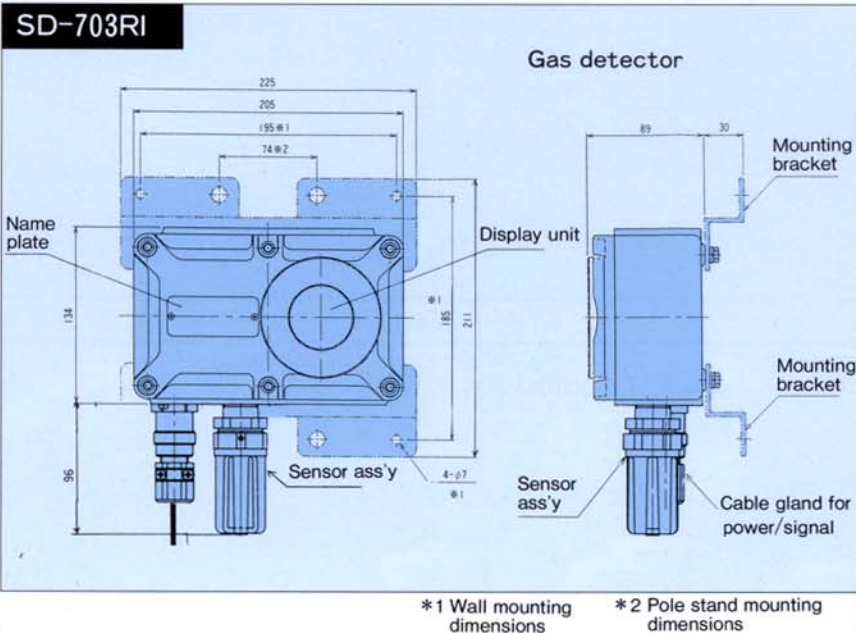
Installation sample

SD-703SC-RI / GD-A43RI

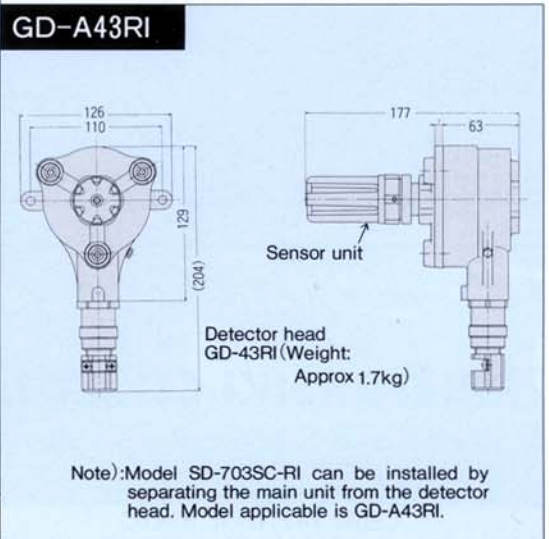


OUTER DIMENSIONS

SD-703RI



GD-A43RI



Overview

Riken Models SD-703RI and SD-703SC-RI detect combustible gases (methane (CH₄) or general hydrocarbons (HC)) using the Non-Dispersive Infrared (NDIR) method. NDIR detection offers virtually no interference from other types of combustible gases (H₂, FLON, etc.) and is the ideal choice for environments hostile to conventional catalytic sensors—silicon-containing and corrosive gases.

The compact sensor connects directly to the main control housing (Model SD-703RI) or can be mounted remotely (Model SD-703SC-RI). Calibration adjustments are made through the control housing window using the included magnetic control key. This keeps the explosion-proof housing shut during normal adjustments, allowing for greater flexibility in maintenance scheduling.

Both models work with a standard Riken alarm/indicator unit, and can be easily added to existing systems. The output is a standard 4 - 20 mA signal and is readily integrated into BL-NET and computerized data collection systems.

Standard accessories

Sun-shade cover1 box
Fuse (1A)1 pce
Magnetic control key1 pce

Optional accessories

- * Box type drip-proof cover
- * Aspirator unit
- * Calibration gas kit
- * Pole stand

SPECIFICATIONS

Model	SD-703RI	SD-703SC-RI/GD-A43RI <Remote type>
Detection gas	Methane (CH ₄) or Hydrocarbon (HC) <Specify CH ₄ or HC when ordering>	
Detection principle	Non-dispersive Infrared Absorption (NDIR)	
Detection range	0-100%LEL	
Accuracy	Less than ± 5% of full scale	
Response time	Less than 30 sec to get T60	
Operating temperature and humidity	-10°C to +40°C, Less than 95%RH	
Output signal	4-20mA.....Output of gas concentration (Resistive load, less than 300Ω) 0.5mA.....At malfunction 2.5mA.....At maintenance mode & initial operation Note : MAX 22mA (with limiter)	
Power requirement	DC 24V ± 10% (Power consumption : MAX 4W)	
Structure	Explosion-proof (Flame-proof) ExdIIBT4	
Applicable cable	CVVS 3-conductor cable	3 m exclusive cable between model SD-703SCRI and model GD-A43RI
Transmission distance	Distance between indicator/alarm unit and detector Max 1.25 km by CVVS 1.25 sq cable Max 2.0 km by CVVS 2.0 sq cable	
Dimensions & weight	Approx 205(W) x 134(H) x 89(D)mm, Approx. 4.3kg	

Specifications subject to change without notice



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