

# SMART TRANSMITTER/INFRARED GAS DETECTOR

Gas Detection for Life

SD-705RI Model



## Features

- Dual alarm contacts provided
- Easy adjustment through display window using magnetic control key
- One person automatic calibration
- Self diagnostics and zero follower function
- Flame proof enclosures (ExdIIBT4)
- Stable reading and high selectivity
- Negligible interference from inert gases, CO & H<sub>2</sub>

## Applications

- Petrochemical plants
- Refineries
- Manufacturing
- Sewer wells
- Laboratories
- Food processing
- Pharmaceutical
- Ship building
- Gas wells

### Standard accessories

- \* Fuse (1A)
- \* Control Key
- \* Sun shade cover

### Optional accessories

- \* Box type drip-proof cover (for detector head)
- \* Drip-proof adaptor (SD-705RI/GD-A45RI)
- \* Aspirator kit
- \* Calibration kit
- \* Pole mount bracket

The Riken model SD-705RI is a flameproof gas detector for LEL level detection of methane and many other hydrocarbons. This detector uses the non-dispersive infrared absorption (NDIR) detection method, which is free from interferences from H<sub>2</sub>, most non hydrocarbon refrigerants, and most other gases or vapors. The sensor also is not poisoned or influenced by silicon vapors, or corrosive vapors, which typically can destroy sensors from other detection methods.

The SD-705 is compact and easy to install and operate. The adjustment control is a magnetic wand that is easy to use by placing it onto the glass window of the gas detector. Gas concentration is read through the window, and adjustable dual alarm contacts are provided for activation of external buzzer or alarm light. Powered by 24 VDC, the unit has a 4-20mA output for communication to outside controllers, for additional external readouts or alarming devices.

<b>Detection gas</b>	Methane (CH <sub>4</sub> ) and Hydrocarbon (HC)	<b>Response time</b>	Less than 30 sec to get T60
<b>Detection principle</b>	Non-dispersive Infrared Absorption (NDIR)	<b>Structure</b>	Explosion proof (flame proof) ExdIIBT4
<b>Detection range</b>	0-100% LEL	<b>Applicable cable</b>	CVVS 3-conductor cable (shielded)
<b>Accuracy</b>	Less than $\pm 5\%$ of full scale	<b>Operating temp &amp; humidity</b>	-10°C to + 40°C, less than 95% RH
<b>Power requirement</b>	DC 24V $\pm 10\%$ (Power consumption) : MAX 4W	<b>Dimensions &amp; weight</b>	Approx.205(W) x 230(H) x 90(D)mm Approx. 5.2kg
<b>Transmission distance</b>	Distance between unit and detector Max 1.25km by CVVS 1.25 sq cable Max 2.0km by CVVS 2.0 sq cable	<b>Alarm preset point &amp; contact capacity</b>	1st: 25%LEL 2nd: 50%LEL (adjustable to any level) DC125V 0.3A, DC30V 1A
<b>External output</b>	Contact output: Gas alarm.....1st/Normal open and 2nd/Normal open Trouble alarm.....Normal open  Signal output: Gas density output.....4-20mA (Linear, resistance load, below 300 $\Omega$ ) Malfunction.....0.5mA At maintenance mode and initial clear time.....2.5mA <b>Note:</b> MAX 22mA (with limiter)		

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