

# TrueSafe Industrial Gas Leak Detector

## Product Description: TS21I-IR

Model TrueSafe TS21I-IR gas detector is suitable for all Hydrocarbon gases as well as Carbon Dioxide gas. Application area of this detector is in OIL, Gas and Petrochemical Complex, Gas petrochemicals Pipelines and Skids, LPG station, Chemical and Pharma Industries, Fertilizer and Power plants, Gas Boiler, and Spray-Paints etc where gas leakage is possible. It reads the gas concentration in Air and transmits to a detection panel over digital bus as well as it shows LEL level on display. IR type of gas sensor is used in this detector. This sensor provides good reproducibility, good performance against changes in atmospheric temperature and humidity. It has long life-span and easy operation. Detector has provision to set Two alarm levels of warnings (High & Low).

Relay output is provided and this output can be connected to the conventional Gas Detection Panel OR SCADA system. For BMS connectivity detector has provided RS485 output. Additionally 4-20mA and Selectable 0-5 V & 0-10V Analog output could be also available. Enclosure used is suitable for Zone 1 & Zone 2 hazardous areas.



### Application:

- OIL & GAS petrochemical Complex
- Fertilizer and Power plants
- Refineries and Petrochemical Plants
- Chemical & Pharma Industry
- Gas Petrochemicals and Skids
- Steel & Cooper Industries
- LPG bottling & LNG Terminals

### Salient Features:

- Calibration required as per OISD / Safety Standards.
- Simulate alarm, fault and warning.
- Replaceable Sensor Provision.
- View gas reading, configuration and diagnostic.
- Wide Operating Temperature Range.
- Immune to Catalytic Poisons.
- Failsafe Operation.

**Vighnaharta Technologies Pvt. Ltd**

(Formerly known as Realty Automation & Security Systems Pvt. Ltd.)



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## Model: TrueSafe TS21I-EC Specification

<b>Gas Sampling</b>	IR absorption and Natural Diffusion Method (NDIR)
<b>Measuring Range (Methane/HC gases)</b>	0-5%, 0-100% volume or LEL
<b>Measuring Range (Propane gas)</b>	0-2% Volume
<b>Measuring Range (CO2 gas)</b>	0-5%, 0-4%, 0-3%, 0-2%, 0-1% Volume or 0-500 ppm upto 0-10000 ppm
<b>Signal Output***</b>	4-20mA, HART over 4-20mA <b>(Optional)</b> .
<b>Modbus Output***</b>	The Modbus output to enable connection to a multi-drop Modbus network.
<b>Relay Output***</b>	Provides NO/NC relay output.
<b>Fault Alarms</b>	0mA (General Fault), 2mA (Calibration), 20-21mA (Over Range).
<b>Gas Sensor</b>	IR Type (Replaceable), SIL/Non-SIL sensor
<b>Response Time</b>	T90 < 30 seconds
<b>Accuracy</b>	< ± 10 % FSD
<b>Repeatability</b>	< ± 2 % FSD
<b>Linearity</b>	< ± 10 % FSD
<b>Operation Temperature</b>	- 20°C to + 50°C
<b>Humidity</b>	0 to 95% RH (Non-Condensing)
<b>Drift over Year</b>	< ± 2 % FSD
<b>Power Supply</b>	18 to 32V DC (24V DC)
<b>Environmental Protection</b>	IP66 /67
<b>Hazardous Classification</b>	Ex II 2 G Exd ia IIC T4 Gb
<b>Zones</b>	Certified for use in Zone 1 & 2, and Zone 21 & 22 hazardous areas
<b>Transmitter Material Enclosure</b>	Aluminum Alloy LM6, Flameproof Enclosure
<b>Sensor Material Enclosure</b>	SS316
<b>Weight</b>	Approx 1kg.
<b>Dimensions</b>	150 mm (L) x 145 mm (W) x 150mm (H) <b>(varies with/without display option)</b>
<b>Display</b>	LED indication and Seven segment Display
<b>Cable Entry</b>	M20 x 2 nos.
<b>Safety Approvals</b>	ATEX, CCoE (PESO), BIS-CM/L – 3927980
<b>Sensor Life</b>	Upto 5 years
<b>Transmitter Warranty</b>	1 year

\*\*\* Ordering Information: Please refer De-codification sheet.

**Distributor:**

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