

TS12CLR-EX-LEL



Commercial LPG/PNG/CNG Gas Leak Detector with LEL Display

(Family - Gas)

Product Description:

- TrueSafe TS12CLR-EX-LEL is LPG/PNG/CNG gas leak detector with LEL display for commercial and industrial segment.
- It reads gas concentration in air. If concentration reaches to hazardous level; it generates alert and sends signal to the gas detection panel or BMS.
- Microprocessor based system reads sensor output and indicates the concentration of gas in atmosphere. It is measured in % LEL (lower explosive limit).
- This wall mounted unit is designed for permanent installation with replaceable sensor.
- Detects gases with concentration between 0 to 100% LEL with user defined high and low alarm level.



Application

- LPG/PNG/CNG Gas storage stations, plant locations
- LPG bullets and banks
- Hotel kitchens, industrial canteens
- Gas filling stations

USPs:

- Make in India product.
- Cast aluminium alloy flame proof enclosure.
- IP 66 for gas group IIA and IIB, CCOE approved

Product Features:

- Detects gases with concentration between 0 to 100 % LEL with user defined high and low alarm level
- Four-digit seven segment LED display for % LEL indication. Two potential free relay output with user selectable NO / NC
- Digital input for gas valve status feedback only for Modbus monitoring
- Four magnetic keys which can be operated using magnetic stylus
- RS485 port for networking multiple gas detectors to building management system
- Supports Modbus RTU protocol



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Technical Specifications:

General specifications	
Detection method	Natural diffusion
Gases detected	LPG/PNG/CNG
Sensor type	Semiconductor
Sensor life span	2-3 years
Display	Four-digit seven segment LED display 0-100% LEL
Response time	Less than 2 Second
Warm-up period	When unit is power ON, it goes into an initial warm up period of 200 seconds
Electrical specifications	
Power supply	+10 to +32 V DC
Power consumption	0.6 W (at+10 V) to 2 W (at +32 V)
Cable	4 core 1.5 mm 2 twisted FRLS cable
Detection distance	Under radius of 3-4M
Environmental specifications	
Operating temperature	-10 ⁰ to +55 ⁰ C
Storage temperature	-10 ⁰ to +60 ⁰ C
Humidity	0 to 95 % Rh
Mechanical specifications	
Protection class	IP 66 for gas group IIA and IIB, CCOE approved
Cabinet material	Cast aluminium alloy
Cable Entry	Double compression cable gland (Ex-Proof), 3/4" ET-type
Dimensions	120 x 120 x 100 (L x W x H)
Mounting	Wall mounting/ stand mounting
Weight	Approx. 1.5 Kg.



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LED indications and output signal	
Four-digit seven segment LED display	<ol style="list-style-type: none">1. Power ON: green LED2. Low Alarm: orange LED3. High Alarm: red LED <ul style="list-style-type: none">• Input: 4 Magnetic keys: 1. ESCAPE 2. UP 3. DOWN 4. ENTER <p>TS12_CLR_Ex_LEL has two relay outputs:</p> <ul style="list-style-type: none">• Relay1 for low alarm condition and Relay2 for high alarm condition. User can use it as a NO or NC type output using the respective jumper adjustments. User can set relay output type for both relays as PULSE type or LATCH type.• Pulse type output: Relay trips for 5 secs and comes back to its previous state.• Latch type output: Relay remains latched till the unit is reset.• If unit is connected to a gas detection panel, using MODBUS communication, the gas detection panel gives an alert depending on the status of TS12_CLR_Ex_LEL.
Output	2 PFC relay contact NO/NC, LED indication and valve output, selectable 0-5 V OR 0-10 V analog output 4 -20 mA current output, RS-485 (Optional) Modbus RTU Protocol
Accessories with unit	
	<ul style="list-style-type: none">• TS12CLR-Ex-LEL Unit• Magnetic Stylus for programming• Allen key• User manual
Certifications	
	CE certifications, IP 66 for gas group IIA and IIB, CCOE approved
Warranty	
	12 Months against manufacturing defects only.
Models and variants	
	TS12CLR-EX-LEL TS12CLR-EX
Abbreviations	
TS12CLR-EX-LEL	TS-TrueSafe 12-Operated on 12V DC C- Commercial L-LPG Gas R- PFC Relay NO/NC with Ex-proof housing with LEL display



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Installation

LPG Detection	PNG/CNG/LNG Detection
<ul style="list-style-type: none">LPG is heavier than air. It has tendency to settle down.Hence, when user is using gas cylinder or bank, TrueSafe must be installed at 30Cm height from the floor.	<ul style="list-style-type: none">Natural gas (PNG/CNG/LNG) is lighter than air. It has tendency to settle up on ceiling.Hence, when user is using it, TrueSafe must be installed 30Cm below ceiling.

Datasheet version with date (V.2 Oct.2020)



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