

IL-RG-1 | Refrigerant leak sensor

Sensor is used for detection of refrigerants leaking to surrounding air and for refrigerants storage spaces. Detects refrigerants based on hydrofluorocarbons (HFC).

- › detected refrigerants:
R22, R32, R134a, R404A, R407C, R410A
- › visual and acoustic alarm signalization
- › alarm triggered NO-C relay contacts
- › RS485 Modbus communication
- › easy DIN rail mounting
- › long life and stability

The sensor operates on the principle of sensing changes in the electrical parameters of semiconductor material, which react non-selectively to the presence of various refrigerants present in ambient air.

Sensor has built-in two independent alarm outputs – potential free relay contacts with independently adjustable level of alarm concentration. Exceeding the set concentration is indicated visually by LED light and acoustic with built-in sound alarm.

Additionally, the sensor is equipped with serial bus with Modbus communication protocol, so the alarm conditions can be pre-set and actual measured data can be read and further processed by a supervising system.



Parameter	Value	Unit
Supply voltage range	12 – 40	V DC
	12 – 30	V AC
Power consumption	max. 200	mW
Detected refrigerants	R22, R32, R134a, R404A, R407C, R410A	
Measuring range	0 – 5 000	ppm
Lower detection limit	300	ppm
Upper detection limit	10 000	ppm
Startup time	max. 5	min
Response time	max. 90	s
Recovery time ¹⁾	5	min
Alarm output 1- relay	NO-C contact max. 30 VDC / 5A	
Alarm output 2- relay	NO-C contact max. 30 VDC / 5A	
Adjustable relay switching level ²⁾	300 – 1 500	ppm
Operational O ₂ level	21 ± 1	%
Operational temperature	-10 to +50	°C
Operational humidity non-condensing	0 to 90	% RH
Operational environment	without risk of explosion	
Storage temperature	-20 to +60	°C
Calibration interval	12	months
Expected lifetime	10	years
Ingress protection	IP 20	
Dimensions	90x40x88	mm
¹⁾ At room temperature.		
²⁾ Independently for each output.		

Explanation of abbreviations and technical terms can be found on our website in the [Glossary](#) section.

