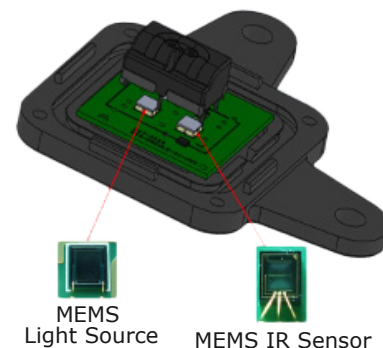


# GLSA01 - MW24

## Outline

Mitsumi's GLSA01-MW24 utilizes Non-Dispersive Infra-Red(NDIR) technology to detect leakage of A2L refrigerant gases. We employ our own MEMS light source and MEMS Infra-red chip inside the GLSA01-MW24 to generate and absorb infra-red radiation impacted by presence of R454B and R32 refrigerant gases. This combination has been proven to reduce effects of cross-sensitivity and provide higher sensitivity and accuracy than other current technologies.



## Features

- Excellent gas selectivity and low drift
- Small size and low profile
- Mechanical and environmental robustness
- IP54 Protection
- UL60335-2-40 Ed.4 compatible

## Applications:

- HVAC&R systems
- Equipment using refrigerants

## Specifications

Description	Unit	Characteristics
Detection Target	-	R32
Operating Temperature	°C	-40 to 80
Storage Temperature	°C	-40 to 85
Input Voltage	V	5 ± 10%
Current Consumption	mA	≤ 100
Cable	-	4P - 5FT - UL2464 22AWG
Connector	-	VH 4pin (JST)
Interface	-	MODBUS RTU/RS485
Alarm Threshold	ppm	No Setting
Concentration Tolerance	%pt.	≤ 5
Effective Resolution	ppm	≤ 100
Response Time	s	≤ 13
Self Malfunction Detection	-	Possible
Data Sampling Interval	s	1
Ingress Protection Level	-	IP54
Cross Sensitivity	-	< 0.1 (for LPG)
		< 0.5 (for ethyl alcohol and DME)
Siloxane Poisoning	-	Degradation-free
Compatibility Standard	-	UL 60335-2-40 Ed.4. ASHRAE15/15.2(2022) IEC60335-2-40 Ed.7
Expected Lifetime	Years	15

GLSA01 - MW24

Block Diagram

Power & Regulation

VDD5 → DCDC Converter → VDD33

Light / Sensor Section

IR Source(Light) → IR Sensor

Signal Processing & Control (OPAMP + AFE IC + MCU)

MCU  
Flash/S-RAM  
I/O Interface  
I2C/UART Bus

Amplifier/Buffer → AD Converter

Interface

RS-485 Transceiver  
GND  
TRXD+  
TRXD-  
VDD5

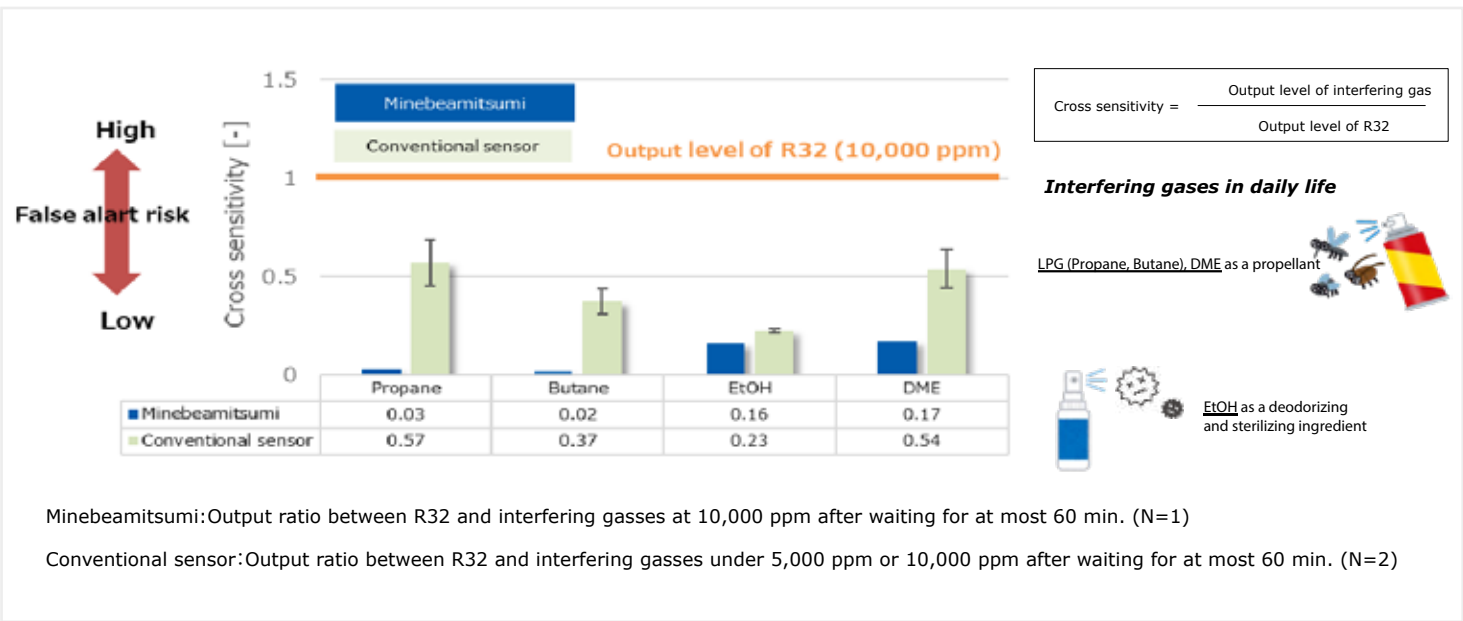
\*AWG22\_4 wire 60in

350780/1744416 (CONNECTOR)

1 GND  
2 TRXD+  
3 TRXD-  
4 VDD5

Pin No.	Pin Name	Comment
1	GND	Ground
2	TRXD+	RS485+
3	TRXD-	RS485-
4	VDD5	Power supply

Cross Sensitivity



- Any products mentioned in this catalog are subject to any modification in their appearance and others for improvements without prior notification.
- The details listed here are not a guarantee of the individual products at the time of ordering. When using the products, you will be asked to check their specifications.