

DESIGN R-290 SYSTEMS WITH CONFIDENCE



IEC 60335-2-40 COMPLIANT LEAK DETECTION FOR HVAC AND REFRIGERATION APPLICATION

TE Connectivity (TE)'s A3 refrigerant sensor helps HVAC/R OEMs using R-290 (propane) implement robust leak mitigation systems to help reduce explosion risk.



IEC 60335-2-40
Annex LL



Supports Low-GWP
R-290 (Propane)



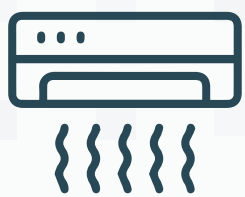
Helps Reduce
Explosion Risk



RELIABLE LEAK DETECTION.
SIMPLIFIED COMPLIANCE.
SAFER SYSTEM DESIGN.

Scan QR code to learn about TE's refrigerant leak detection solutions.

DESIGNED FOR A WIDE RANGE OF APPLICATIONS



HVAC Equipment
Residential & Commercial
Air Conditioning



Heat Pumps
Heat Pump Systems



Commercial Refrigeration
Display Cases & Walk-ins



Refrigerated Vending
Refrigerated Vending
Machines



Water Heaters
Propane Water Heater
Systems



Major Appliances
R-290 Enabled Appliances

A3 REFRIGERANT SENSOR

Reliable R-290 Leak Detection



15% LFL
Alarm Threshold

± 2.5%
Accuracy

20s
Response Time

Up to
15 year Life



Operation Temp.
-40°C to 85°C



Operation Humidity
0% to 100% RH



Communication
RS485 Modbus RTU
(PWM/UART Options)



Enclosure IP54
Enclosed Module

KEY VALUE PROPOSITIONS



Detect Leaks Early
15% Lower Flammability Limit (LFL) detection helps identify R-290 leaks before they reach critical levels.



Designed For Compliance
TUV tested to meet IEC 60335-2-40 Annex LL requirements for R-290 systems.



Reliable Performance
Photo Acoustic Spectroscopy (PAS) technology with resistance to poisoning from typical interference gases.



Maintenance Free
Automated Self-Calibration (ASC) maintains performance for up to 15 years – no recalibration needed.



Easy Integration
RS485 Modbus RTU communication streamlines integration with HVAC/R controllers and systems.



Built For Harsh Environments
Operated from -40°C to +85°C and up to 100% RH with integrated temperature & humidity compensation.

WHY SHOULD YOU CHOOSE TE?



Reliable R-290 leak
mitigation system design



Support IEC 60335-2-40
compliance efforts



Helps reduce
maintenance requirements



Enhance long-term
system reliability



Accelerate adoption of
low-GWP refrigerants

GWP: Global Warming Potential | RH: Relative Humidity | PWM: Pulse Width Modulation | UART: Universal Asynchronous Receiver Transmitter

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