



Gas sensor

DST G54B / DST GR32

Description

The new A2L gas sensor is designed for use in the HVAC market with a specific focus on Residential, Heat Pump, Rooftop, & Chiller applications. Our thermal conductivity technology offers rapid & accurate leak detection, min. 15-year lifetime, immunity to poisoning, automated self-calibration, and reliable self-diagnostics to avoid silent failures. Our unique design is optimized to ensure performance over the lifetime even in harsh application environment as it is robust against condensation, dirt, dust, and UV light. Additionally, we have built-in flexibility in terms of hardware and software allowing for easy customization and system integration.

Features & Benefits

- Designed for use with R454B and R32 (others on request)
- Flexible alarm threshold and customizable software
- Easy system check via LED status
- Patented, robust design
- Output modes: Modbus, Relay and Dual Output

Product details

General data

Sensor specifications (UL 60335-2-40)

Measuring range	0 – 100% LFL
Alarm threshold	9 – 20% LFL
Operating temperature	-40 – 175 °F (-40 – 80 °C)
Intermittent temperature	-40 – 203 °F (-40 – 95 °C)
Storage temperature	-67 – 203 °F (-55 – 95 °C)
Operating pressure	700 – 1200 mbar
Operating humidity	0 – 100% RH with condensation
Enclosure protection (EN 60529)	IP54
Connector protection (EN 60529)	IP56 and IP57
Flame rating	UL 94 V – 0

Electrical specifications

Output mode⁽¹⁾	Relay specification	Modbus specification	Dual output specification
Supply voltage	24 V AC $\pm 10\%$ and 24 V DC (8 – 32 V DC)	5 V DC $\pm 10\%$ 24 V AC $\pm 10\%$ and 24 V DC (8 – 32 V DC)	24 V AC $\pm 10\%$ and 24 V DC (8 – 32 V DC)
Power consumption (estimated)⁽²⁾	1.6 VA max.	1.6 VA max.	1.6 VA max.
Digital Output	–	RS485, 120 Ω termination included in sensor	RS485, 120 Ω termination included in sensor

⁽¹⁾ Other configurations available upon request

⁽²⁾ 1.0 VA version available upon request

Mechanical characteristics

Materials – Enclosure	PA66 25% GF
Materials – Electrical connection	Nylon
Net weight (depending on the format)	0.04 – 0.06 kg

Performance and environmental conditions

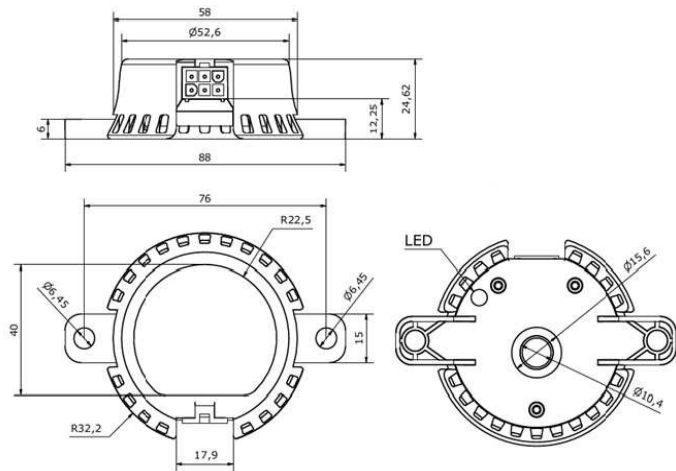
Performance specifications

Accuracy at ambient 15 – 25 °C, 30 – 70%	$\pm 2.5\%$ LFL
Accuracy across operating range	$\pm 5.0\%$ LFL
Response time	< 15 s
Sensor recovery time	< 5 minutes in clean air
Lifetime	Min. 15-year lifetime – self monitoring
Mitigation recovery timer	0 – 5 minutes (others upon request)
Alarm response	Relay open – LED red – Alarm flag
Alarm reset	2.5% LFL hysteresis



Dimensions & weights

Dimensions

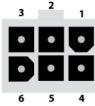


NOTE:
Dimensions are in mm, unless stated otherwise.

Disclaimer/Information:
Sensor stores diagnostic values for warranty and analysis. Data can be provided by returning the product. A service fee may apply.

Connections

Electrical connections

Type code	Standard (6 PIN)
	
Electrical connection, Modbus	Pin 1: Supply voltage Pin 2: Earth/Ground Pin 3: Mod A (Data +) Pin 4: Mod B (Data -) Pin 5: Not connected Pin 6: Not connected
Electrical connection, Relay	Pin 1: Supply voltage Pin 2: Earth/Ground Pin 3: Not connected Pin 4: Not connected Pin 5: Input relay Pin 6: Normally open contacts output
Electrical connection, Dual Output	Pin 1: Supply voltage Pin 2: Earth/Ground Pin 3: Mod A (Data +) Pin 4: Mod B (Data -) Pin 5: Input relay Pin 6: Normally open contacts output
Enclosure IP	IP54

NOTE: Please check store.danfoss.com to find the correct variant for your requirements

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Electrical Safety Certificate	CSA 80218837	CSA - Canadian Standards Association	
Export Control Declaration	Refrigerant Leakage Sensor	Danfoss	
Electrical Safety Certificate	UL E534311	UL - Underwriters Laboratories inc.	
EU Declaration	Danfoss EU-UK 073R0000.01	Danfoss	UK RoHS

Contact details

Online support

Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.



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