



"DPWL" Leakage sensor refrigerant gas leak detector

For the detection of CFC, HFC and CO₂ refrigerant gases, CAREL proposes a new range of sensors designed to satisfy all requirements in the fields of industrial refrigeration and air-conditioning (supermarkets, shopping centres, other public places) on units that require continuous control and monitoring, notifying system status in order to limit the problems caused by gas leaks. The sensors are calibrated to measure the most commonly used gases (R22, R134a, R404a, R407c, R407f, R410a, R290, NH₃, ethylene and CO₂).

When leaks above a certain concentration are detected, the sensor sends a signal to the controller or supervisor it's connected to. The alarm is also signalled locally by audible and visual indicators. Versions available with semiconductor or infrared sensing element.

Preventing refrigerant gas leaks has the following advantages:

- avoids system downtime or significant economic damage due to poor food storage, mean cost savings;
- contributes to reducing greenhouse gas emissions, as established by the Kyoto protocol;
- ensures surveillance over the safety of people occupying the environment where the refrigeration units are operating.

Available in built-in or remote sensor.

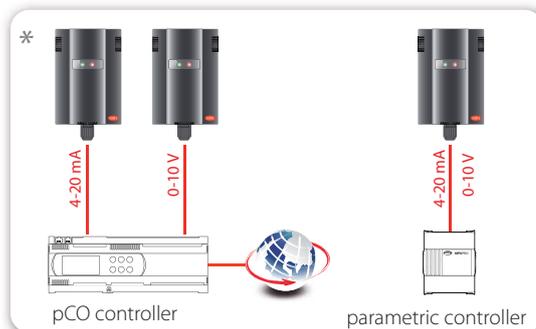
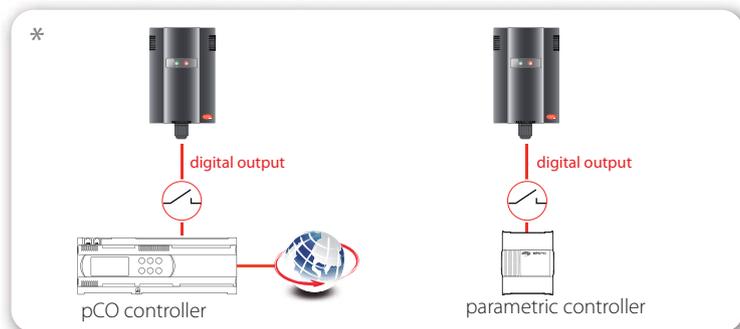
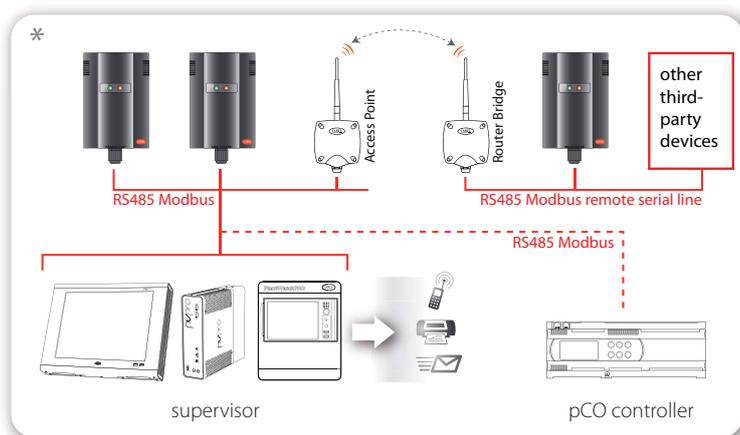
Installation of the gas leak detector ensures compliance with European standards F-GAS and EN378 as well as ASHRAE 15 (US market).

- **savings:** a prompt response avoids unit downtime;
- **safety:** for people located in the vicinity of the unit and for food storage;
- **signal:** prompt warning of system gas leaks

Technical specifications

	Type of sensor	
Features	Semiconductor IP41 and IP66 for R22, R134a, R404A, R407a, R407c, R407f, R410a, R290, NH ₃ , ethylene	Infrared IP66 for CO ₂ , Infrared IP41 for R134A, R404a, R407a, R410a gas
Outputs available	serial: RS485 Modbus analogue: 0 to 5 V, 1 to 5 V, 0 to 10 V, 2 to 10 V, 4 to 20 mA digital: relay 1 A, 24 Vac	
Local alarm	light (red LED) audible (buzzer): threshold, see technical documents	

Example applications



*: verify compatibility with application on controller



Prompt gas leak signal

Minimises costs due to leaks in the circuit, protecting people's health.



Better connectivity

Integration with most CAREL and third party controllers.



Standards compliant

Guarantees conformity with European (F-GAS and EN378) and US standards (ASHRAE 15).

Codes available

Code	Version
Semiconductor (IP41)	
DPWLA07000	gas R22
DPWLB07000	gas R134a
DPWLC07000	gas R404a
DPWLR07000	gas R407a
DPWLD07000	gas R407c
DPWLS07000	gas R407f
DPWLE07000	gas R410a
DPWLG07000-	gas NH ₃
DPWLQ07000	gas Etilene
DPWLP07000	gas R290
Semiconductor with 5 m remote sensor (IP66)	
DPWLA27000	gas R22
DPWLB27000	gas R134a
DPWLC27000	gas R404a
DPWLD27000	gas R407c
DPWLE27000	gas R410a
Infrared (IP41)	
DPWLK07000	gas R134a
DPWLL07000	gas R404a
DPWLM07000	gas R407a
DPWLN07000	gas R410a
Infrared (IP66)	
DPWL417000	gas CO ₂
Infrared with 5 m remote sensor (IP66)	
DPWL427000	gas CO ₂

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