Future proof R290 controls solutions for refrigeration applications

Improving system architectures and using refrigerants with lower global warming potential (GWP) can significantly improve the carbon footprint of an installation.

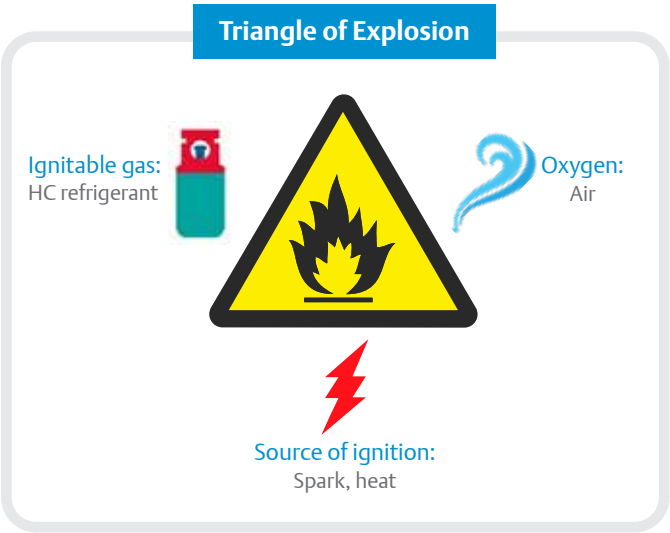
R290 is one of the most discussed natural refrigerants, and it has been known for its good refrigerating performance, but also for its' flammability. As a consequence, it implies strict considerations for manufacturers related to system design, installation and operation.

How can an explosion happen with refrigeration system having flammable refrigerant?

An explosion can occur only if an ignitable gas (R290), oxygen (air) and an ignition source, such as spark or heat are coexisting. There is no explosion when one of these three elements is not present.

An additional condition is required for explosion. The mixture of released flammable refrigerant from the refrigeration system and air in atmosphere must be within a certain mixture range.

No explosion can occur if R290 presents with less than 39 grams per cubic meter air or above 177 grams per cubic meter air.



The key products include:

- Electrical Control Valves
- Electronic Controllers and Sensors
- Thermo™-Expansion Valves
- Solenoid Valves
- Mechanical Pressure Regulators
- Oil Management Components
- Pressure Controls
- System Protectors and Moisture
- Ball Valves

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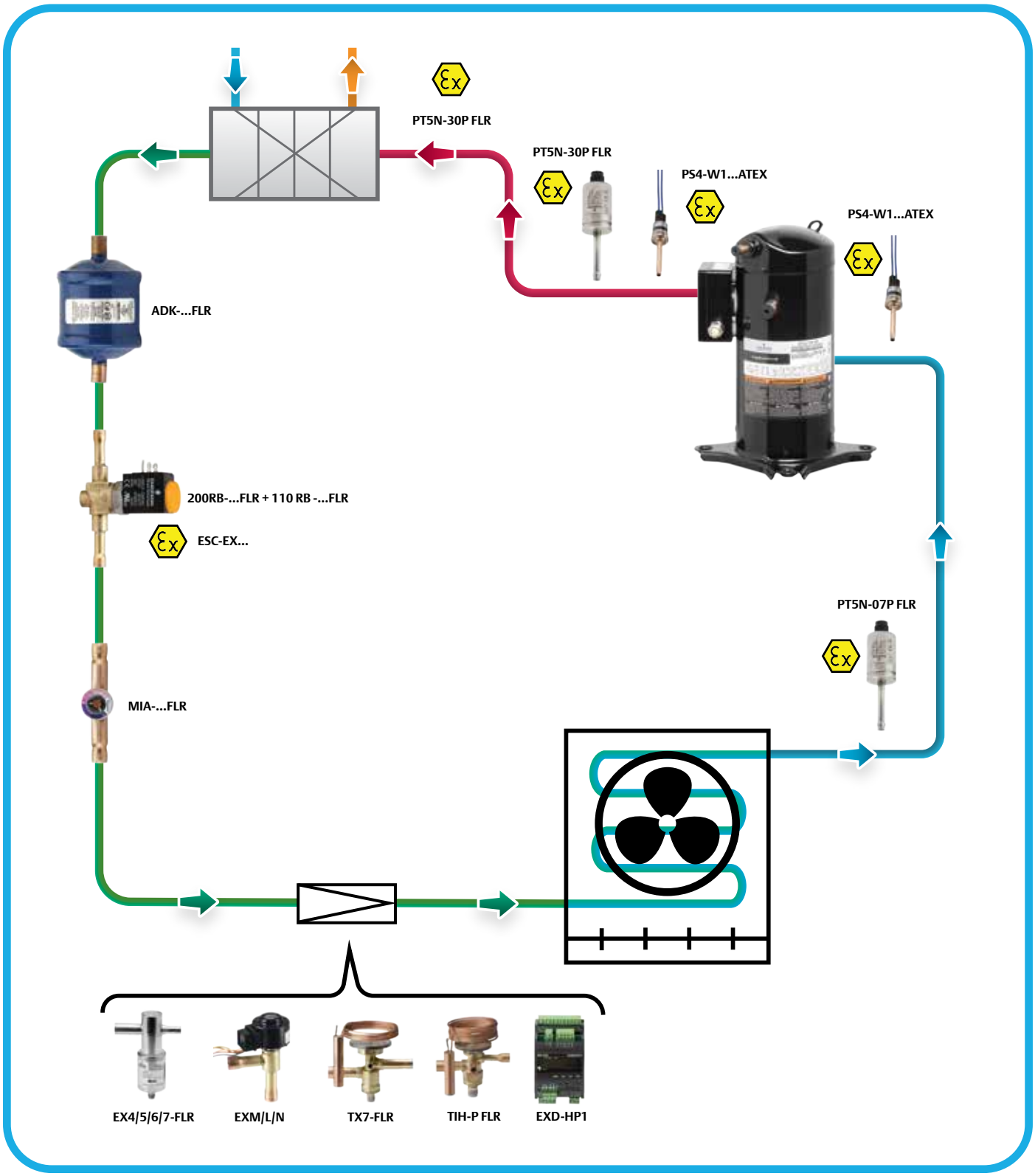
Full Solution at a Glance



For more details, there is the R290 product guide, as well as the selection tool Control Navigator, all of them available on the Emerson website. Contact your local Emerson representatives in case of any further questions or need of support.

For more details, see www.climate.emerson.com/en-gb

Emerson Climate Technologies GmbH - European Headquarters - Pascalstrasse 65 - 52076 Aachen, Germany
Tel. +49 (0) 2408 929 0 - Fax: +49 (0) 2408 929 570 - Internet: www.climate.emerson.com/en-gb

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