

# Did you know?

## Flammable refrigerant R290 (No.2)

After a detailed risk analysis, system manufacturers have a range of system components available for use with R290. When selecting system components for propane applications, a distinction needs to be done between mechanical and electrical components. The components are subject to varying degrees of safety requirements.

Mechanical components have no ignition source and are therefore out of scope of ATEX directive. ALCO propane products are tested twice for leaks in the factory. The electrical components are divided according to the ATEX scope of application by housing construction or maximum permissible operating voltage or current.

If the maximum propane filling quantity of currently up to 150 grams, according to **EN/IEC 60335-2-40/89**, is observed, the ATEX scope of application does not apply.

### Mechanical Components

Non-electrical operating device without potential of electrostatic charge:

- Out of scope of ATEX directive
- No declaration of conformity by the component manufacturer is required.

Product	Alco-Type	Capacity	Connection	Remark
Thermo™-Expansion Valve	TIH-...FLR TX7-...FLR	3.2...29.4 kW 28...162 kW		double leakage test at the factory
Filter Drier	ADK-...FLR BFK-...FLR		6...22 mm 1/4" ... 1 1/8" ODF	
Sight Glass	MIA-...FLR		6...28 mm	
Solenoid Valve (without coil)	110RB-...FLR 200RB-...FLR	0.2 m³/h 0.4...1.6 m³/h		

### Electrical Components

Electrical operating device contains a housing with sufficient protection design/ construction, or the maximum permissible electrical supply voltage/current is not exceeded:

- In scope of ATEX -directive
- The component manufacturer prepares the declaration of conformity.



Product	Alco-Type	Capacity	Remark
Electronic Expansion Valve	EX-...FLR	2...340 kW	
Coil	ESC-EX		
Pressure Transmitter	PT5N-...FLR		
Electrical Plug and Cable	ECV-05A EXV-60 FLR PT4-M60 FLR		
Pressure Switch	PS4-...ATEX		Not for 230 V, max. 50 mA at 24 VDC

Electrically operated device approved according to EN/IEC 60335-2-40/89 with limited R290/R1270 capacity of currently up to 150 grams:

- Do not have to comply with the ATEX directive
- No declaration of conformity by the component manufacturer is required.

Product	Alco-Type	Capacity
Electronic Expansion Valve	EXM/L	1.9...20 kW