



## 3061E THE 1ST AFFORDABLE HIGH PRESSURE AND TEMPERATURE SAFETY VALVE

Castel safety valves series 3061E are safety devices according to the definition given in Article 2, Point 4 of 2014/68/EU Directive and are the subject of Article 4, Point 1.d) of the aforementioned Directive.

The 3061E valves are of the direct-loaded type, unbalanced, conveyed discharge. Valve opening is achieved by the thrust the fluid under pressure exerts on the disc, when said thrust exceeds, undersetting conditions, the opposing force of the spring acting on the disc.

The safety valves in series 3061E are manufactured in accordance with European standard EN ISO 4126-1: 2013, relative either to the design/construction of the valves or to the functional characteristics of the same.

Castel, as a consolidated partner for CO<sub>2</sub> applications, has developed the 3061E series as an affordable safety valve suitable for many installations.

The R&D department has studied a compact design compatible with systems where the overall dimensions and access to the installation are limited.

The use of high-performance materials places the 3061E valve as a reliable safety device suitable for installation in all refrigeration systems, especially in CO<sub>2</sub> transcritical applications.

Transcritical applications not only feature extremely high working pressures, up to 140bar; they also show very high temperatures at the compressor discharge line.

This brand new safety valve perfectly complies with these extreme conditions, since it can reach set pressures up to 150 bar and 150°C working temperatures!

The set pressure range (from 60 to 150 bar) guarantees operating flexibility ranging from installations on the low pressure section (60bar) such as the evaporator; intermediate pressure section (80-90 bar) when installed on liquid receivers and finally on the high pressure section protecting the oil separator, the gas cooler and the heat recovery unit (120-140 bar).

Safety valves type 3061E guarantee repeatable performance.

This means that, after the valves have operated, open/close, the initial setting conditions are maintained.

The valves in series 3061E can be used with refrigerant fluid

R744, in the vapor state, or other refrigerants belonging to Group 2 with reference to Article 13, Para. 1(b) of Directive 2014/68/EU (ECRegulation No. 1272/2008).

Technical data:

Refrigerant: CO<sub>2</sub> (R744)

Set pressure range: 60 – 150 bar

Connections: 1/4" NPT; 3/8" NPT; 1/2" NPT

MWP (maximum working pressure): 165 bar

TS min / TS Max: -50°C / 150°C

Download the 2020 General Catalogue from our web site: [www.castel.it](http://www.castel.it) to see our complete safety valve range for CO<sub>2</sub> (and not only!).

