



**Danfoss ICLX two-step gas-powered main valves**

# A superior solution of safety and performance

The New Danfoss ICLX valves are gas-powered solenoid valves designed to control the flow of refrigerant in large commercial and industrial applications. The valve is field convertible from single step to two step opening.

Designed to use an external hot gas pressure to open, the ICLX requires no pressure differential or drop to be fully open. Port sizes: 1/4" through 6" with direct weld bodies.

**80%**

**leak risk reduction**

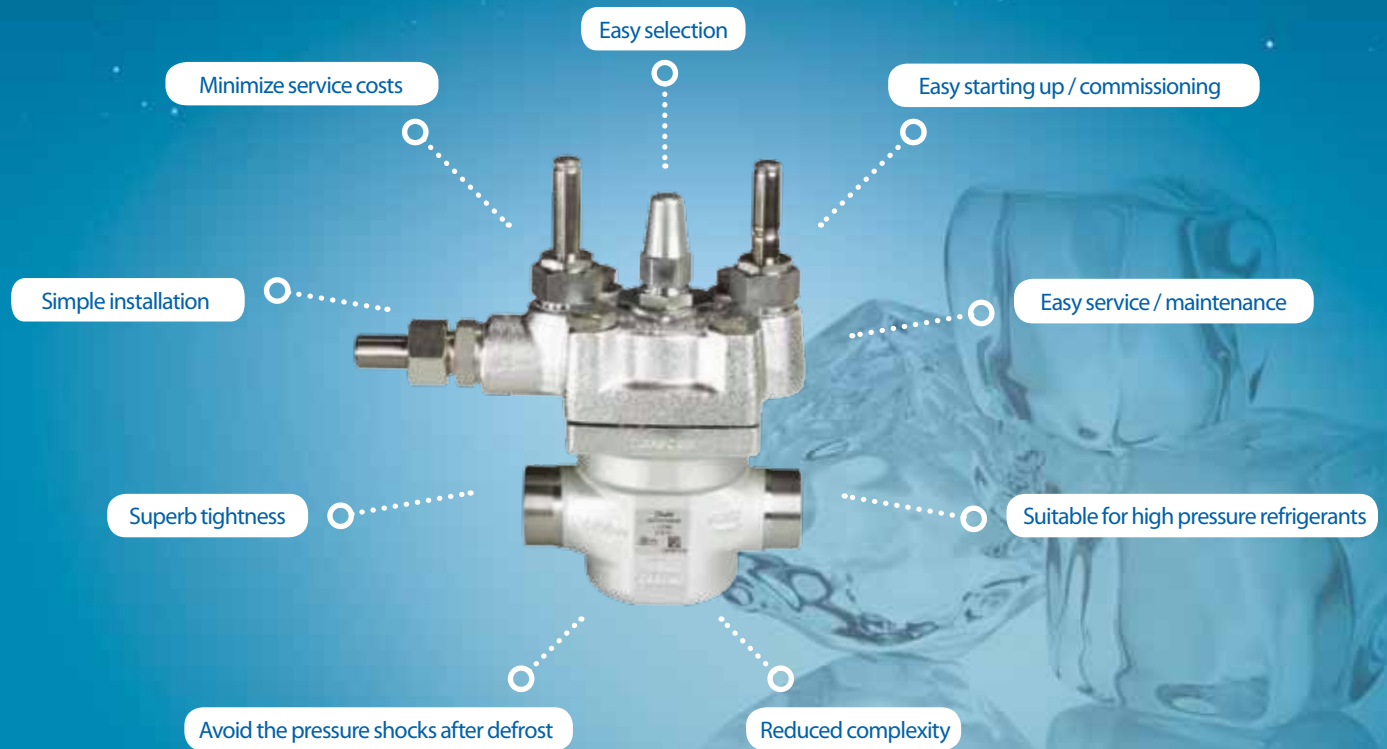
When compared to traditional flanged connections, the welded connection of ICLX valve offers a higher safety level, by reducing the risk of leaks over 80%.

**754psi**

**working pressure**

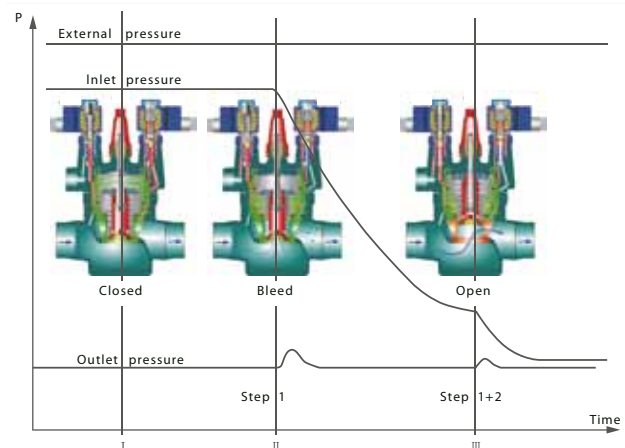
With a maximum working pressure of 754 psi, the ICLX is ready for CO<sub>2</sub> and future high pressure refrigerants.





### ICLX opens in two steps:

- Step one opens to 10% of the capacity, when the pilot solenoid valves are activated
- Step two opens automatically after the pressure differential across the valve reaches 22 psi



## Features

- ◆ Highest working pressure available
- ◆ No pressure drop or pressure differential required to operate
- ◆ Mounts in standard ICV Flexline™ housing affording function flexibility - a true plug and play solution
- ◆ Direct weld connections offer lowest leak potential, increasing safety and simplifying installation
- ◆ Installation requires only one electrical signal, even in 2 step operating mode
- ◆ Convertible from 2 step to 1 step function
- ◆ Normally closed design offers additional system safety
- ◆ Outstanding flow characteristic ensures the 0 psi opening
- ◆ No hot gas leakage to the suction line due to teflon valve plates and gas tight piston rings
- ◆ Short closing time by optimal design with small hot gas chamber
- ◆ No constant gas bleed - greater system efficiency gas chamber
- ◆ Top cover can be oriented in any direction, making hot gas piping easy

## Technical data

### ◆ Connections and port sizes

Connection types include butt weld, socket weld, and solder connections. Port sizes 1¼" through 6"

### ◆ Refrigerants

Suitable for all common, non-flammable refrigerants, including R-717 (NH<sub>3</sub>) and R-744 (CO<sub>2</sub>), and all non-corrosive gases/liquids

### ◆ Operating temperature range

-76/+248°F

### ◆ Surface Protection

The external surface is zinc-coated to give good protection against corrosion

### ◆ Safe working pressure range

Designed for industrial refrigeration applications with maximum working pressure of 754 psi g

### ◆ Maximum opening differential pressure

ICLX 32-65 400 psi \*

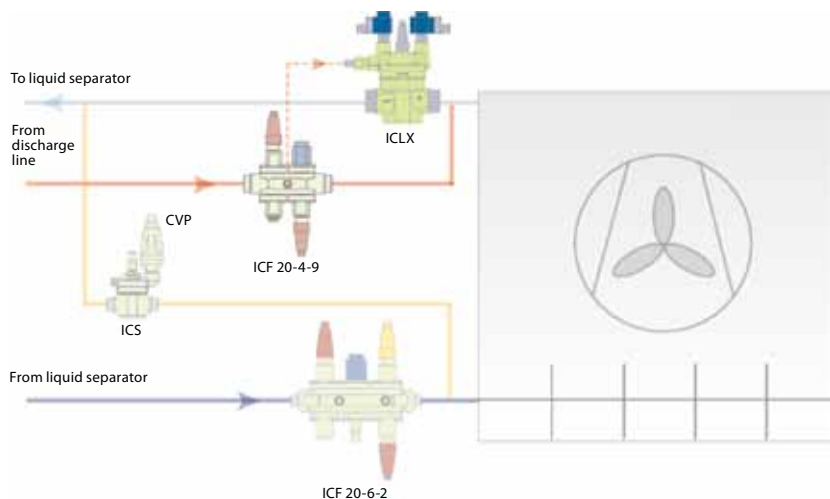
ICLX 100-150 580 psi \*\*

\* External pressure is 20 psi higher than inlet pressure on the ICLX valve

\*\* External pressure is 30 psi higher than inlet pressure on the ICLX valve



## Standard applications



ICLX are ideally suited to be used in wet return and suction lines for the opening against high differential pressure, e.g. after hot gas defrost in large industrial refrigeration systems.



## Danfoss Flexline™ Simple. Efficient. Flexible.

Designed to offer clever simplicity, timesaving efficiency and advanced flexibility the Flexline™ series includes three popular product categories:



**ICV Flexline™**  
– Control valves



**ICF Flexline™**  
– Complete valve stations



**SVL Flexline™**  
– Line components

All products are based on a modular design with no functionality in the housing. This set-up reduces complexity right from the design phase to the installation, commissioning and service. All key to lower total life cycle costs – and major savings.

Go to [www.danfoss.us/flexline](http://www.danfoss.us/flexline) for more information on the Flexline™ platform.

## Global knowhow Local support

Backed by more than 60 years of experience producing valves and controllers for industrial refrigeration applications Danfoss is a solid partner to turn to when you are looking for quality components.

Our global knowhow combined with local support offers you the best possible products and service.

[www.danfoss.us](http://www.danfoss.us)

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