

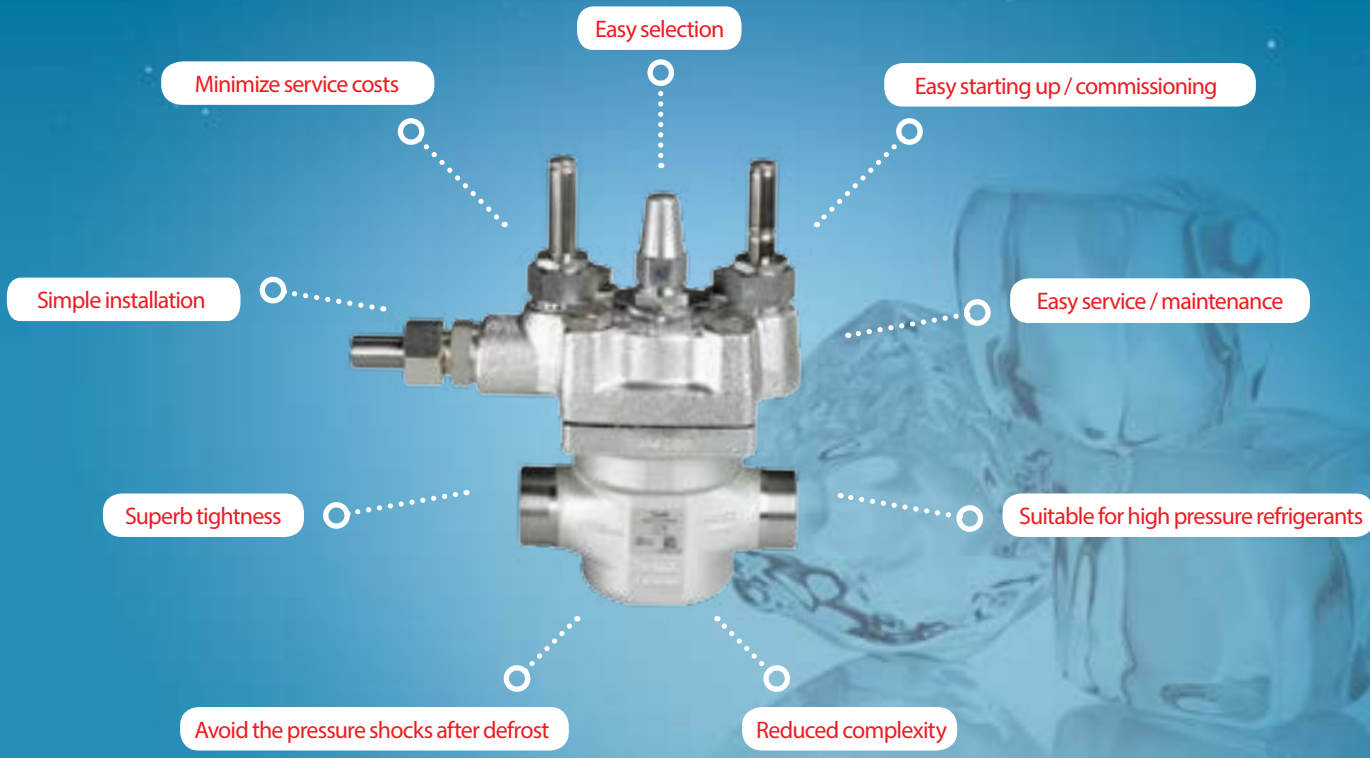
## A superior solution of **safety and convenience**

Danfoss ICLX two-step servo-operated main valves. The Danfoss ICLX valves are 2-step servo-operated main valves with pilot solenoid valves. From DN 32 up to DN 150, ICLX valves use an external pressure connection for opening (which means that no opening pressure difference across the ICLX valve is required).

**52 bar**

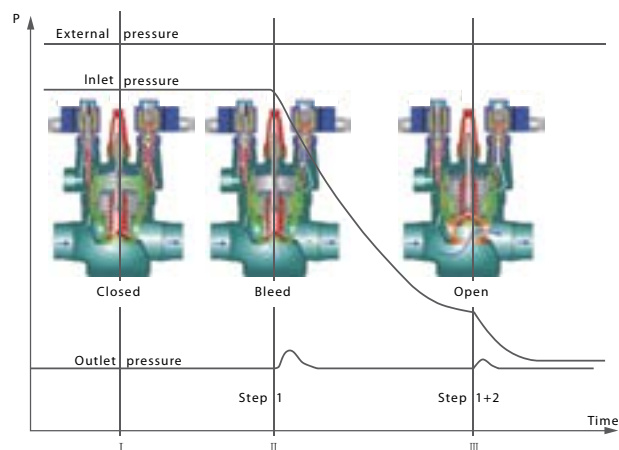
working pressure  
ready for CO<sub>2</sub> and  
future high pressure  
refrigerants.





**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 1.25 bar



**Features**

- Standard ICV Flexline™ housing realizes the real flexibility, a true plug and play solution with easy and timesaving switch between the functions
- Full hermetic external tightness ensures no leakage
- Normal closed type could minimize the system risk
- Direct weld eliminates pipe flanges to increase system safety and simplify the installation
- Outstanding flow characteristic ensures the 0 bar's opening, especially suitable for systems where low pressure drop is required
- Easy change over between the two steps & one step function
- Simple installation as only one control signal is needed
- 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

## Technical data

- **Dimensions**

DN 32 to DN 150

- **Refrigerants**

Can be used for all normal, non-flammable refrigerants, including R 717 (NH<sub>3</sub>) and R 744 (CO<sub>2</sub>), and non-corrosive gases/liquids - assuming seals of the correct material are used. Use with flammable hydrocarbons cannot be recommended, please contact Danfoss

- **Temperature range**

-60/+120°C (-76/+248°F)

- **Surface**

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

- **Pressure range**

The valve is designed for

Max. working pressure: 52 bar g (754 psi g)

Test pressure: 104 bar g (1508 psi g)

- **Opening differential pressure**

Min. 0 bar g (0 psi g) as valve is kept open by external pilot pressure

Max. (MOPD):

ICLX 32-150 28 bar\* (400 psi)

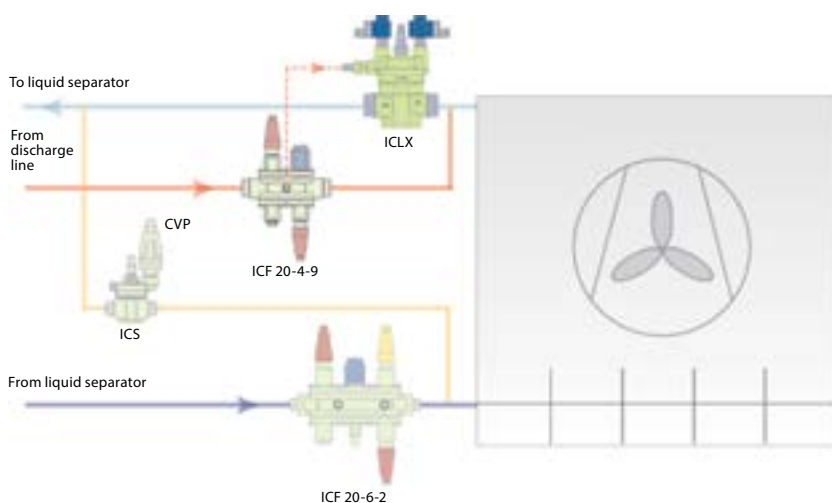
ICLX 32-150 40 bar\*\* (580 psi)

\* External pressure is 1.5 bar (20 psi) higher than inlet pressure on the ICLX valve

\*\* External pressure is 2 bar (30 psi) higher than inlet pressure on the ICLX valve



## Standard applications



ICLX are 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 with ammonia or fluorinated refrigerants.

# Danfoss Industrial Refrigeration

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### Danfoss IR app

The free IR App gives you a spare parts tool, which makes it easy for you to find the spare part number for a given Danfoss industrial refrigeration valve. It also presents all the products and benefits of the SVL Flexline™ range – with a fun game thrown in as well.



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From our online product catalogue on our website, you can download 3D CAD symbols and illustrations to help you when designing refrigeration plants.



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With this interactive PowerPoint slideshow, you can explore all the details of a two-stage ammonia plant. You will find detailed cut-away drawings and information on the valves in the installation along with links to videos, literature and product animations.



### Application handbook

The Application Handbook is designed to help you every step of the way when working with industrial refrigeration systems. Among many other things, it contains examples of how to select control methods for different refrigeration systems, their design and which components to choose.

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