Instruction

SFA 15

Installation

148R9530

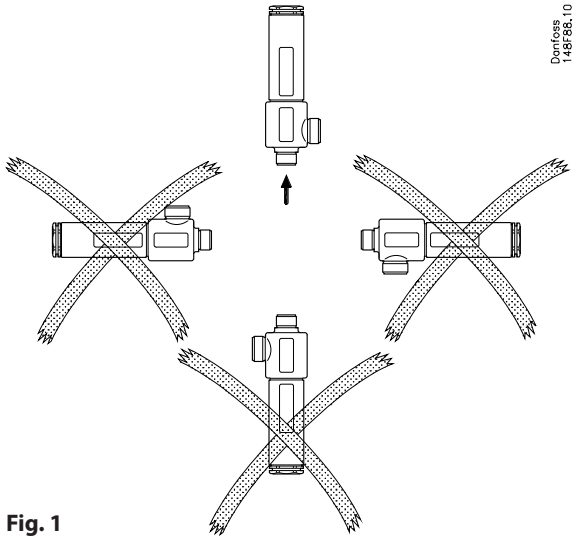

Fig. 1

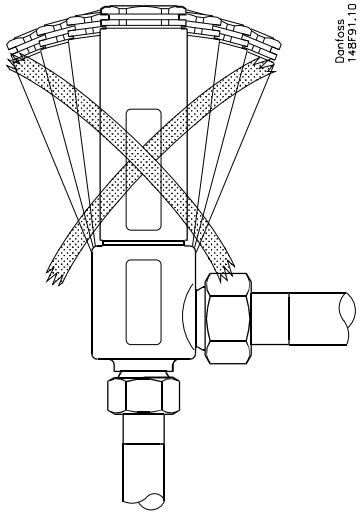

Fig. 2

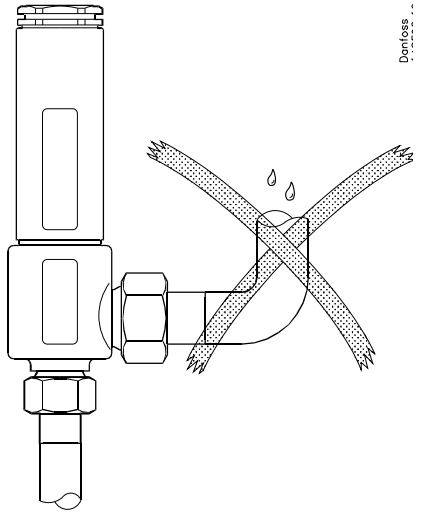

Fig. 3

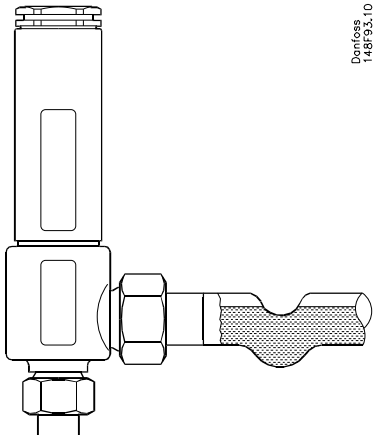

Fig. 4

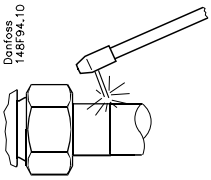

Fig. 5

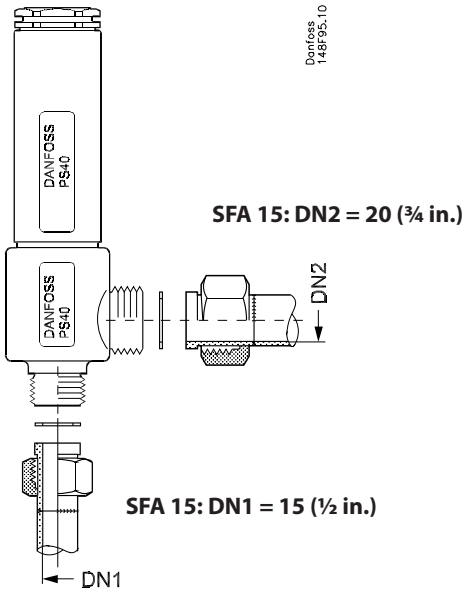

Fig. 6

148R9530

Installation

Refrigerants
Applicable to all common non-flammable refrigerants, including R717 and non-corrosive gases/liquids dependent on sealing material compatability.
Flammable hydrocarbons are not recommended. The valve is only recommended for use in closed circuits. For further information please contact Danfoss.

Temperature range
SFA 15: –30/+100°C (–22/+212°F).

Pressure range
The valve is designed for a max. working pressure of 40 bar g (580 psi g). Danfoss Industrial Refrigeration A/S is supplying safety valves adjusted for a certain pressure (indicated on the ID-plate) and sealed. Danfoss Industrial Refrigeration guarantees correct pressure as long as the seal remains unbroken.

Installation
The valve should be installed with the spring housing upwards (fig. 1). When mounting the safety valve it is important to avoid the influence of thermic and dynamic stress (vibrations) (fig. 2). The outlet pipe of the valve must be designed as to prevent dirt from penetrating into the valve (fig. 3). For valves with outlet in the open air, an oil filled U-pipe is an efficient protection against the entrance of water and dirt (fig. 4). The valve is designed to withstand a high internal pressure. However, the piping system should be designed to avoid liquid traps and reduce the risk of hydraulic pressure caused by thermal expansion. It must be ensured that the valve is protected from pressure transients like "liquid hammer" in the system.

Welding
If welding fittings are applied, these should be dismounted during the welding process (fig. 5). Only materials and welding methods, compatible with the flange material, must be welded to the flange.

Avoid welding debris and dirt in the threads of the housing and pipes.

Assembly
Remove welding slag and dirt from tubes and housing before the valve is mounted. Mount the valve as shown in fig. 6.

Colours and identification
The valves are Zinc-Chromated in the factory. If further corrosion protection is required, it can be painted. Precise identification of the valve is made via the ID-plate on the valve housing.
In cases of doubt, please contact Danfoss. Danfoss accepts no responsibility for errors and omissions. Danfoss Industrial Refrigeration reserves the right to make changes to products and specifications without prior notice.

DECLARATION OF CONFORMITY
The Pressure Equipment Directive 97/23/EC

Name and Address of Manufacturer within the European Community
Danfoss Industrial Refrigeration A/S
Stormosevej 10
PO Box 60
DK-8361 Hasselager
Denmark

Description of Pressure Equipment

Refrigerant safety valve
Type SFA 15

Nominal bore	**13 mm.** (0.512 in.)	
Classified for	Fluid Group I (all refrigerants (toxic, nontoxic, flammable and nonflammable)).	
Temperature range	SFA 15	**–30°C/+100°C** (–22°F/+212°F)
Maximum allowable working pressure	SFA 15	**10 - 40 bar** (143 - 580 psi)

Conformity and Assessment Procedure Followed

Category		**IV**
Module		**B + D**
Certificate ID		*B: 07 202 1837 Z 0004/4/0001* *D: 07 202 0511 Z 0009/1/H-0001*
Nominal bore	Standard application	**13 mm.** (0.512 in.)

Name and Address of the Notified Body which carried out the Inspection
TÜV-Nord e.V.
Grosse Bahnstrasse 31
22525 Hamburg, Germany

CE
(0045)

Name and Address of the Notified Body monitoring the Manufacturer's Quality Assurance System
TÜV-Nord e.V.
Grosse Bahnstrasse 31
22525 Hamburg, Germany

References of Harmonised Standards used
EN 10222-4 EN 10213-3

References of other Technical Standards and Specifications used

AD 2000-Merkblätter	DIN 3158 DIN 3320	prEN 12284
VdTÛV-Merkblatt Sicherheitsventil 100	DIN 3840	prEN 13136

Authorised Person for the Manufacturer within the European Community

Name: Morten Steen Hansen **Title:** Production Manager

Signature: Morten Steen Hansen **Date:** 08/01/2004

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