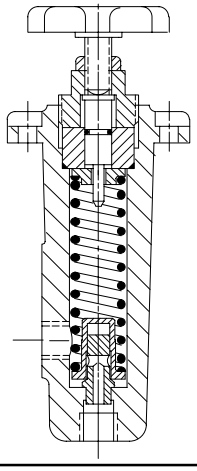
Pressure Relief Valves

C175, 11 Design

Typical Section



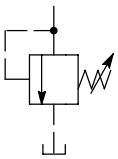
Basic Characteristics

Operating pressures ... Up to 210 bar (3000 psi)
Flow rating ..... 12 L/min (3.2 USgpm)
Mounting ..... Panel

General Description

This single-stage valve is designed for applications requiring an adjustable pressure relief valve or pressure regulating valve of small capacity. It may also be used as a remote control valve for pilot operated pressure control valves (e.g. models ECG-06/10).

Functional Symbol



Model Code

F3 - C-175 - * - 11 UB

1 2 3 4 5

1 Special seals
See "Hydraulic Fluids" section.

2 Basic model

3 Pressure adjustment range
B = 5,2-69 bar (75-1000 psi)
C = 35-138 bar (500-2000 psi)
F = 104-210 bar (1500-3000 psi)

4 Design number
Subject to change.
Installation dimensions remain as shown for designs 10-19 inclusive.

5 Port tappings
UB = G (BSPF) pipe threads

Operating Data

Maximum Pressure
According to adjustment range. See "Model Code" above.

Maximum Flow Rate
All models ..... 12 L/min (3.2 USgpm)

Hydraulic Fluids and Seals
All valves can be used with antiwear hydraulic oils, water-in-oil emulsions and water glycols.

Add prefix "F3" to model designation when phosphate ester (except alkyl-based) or chlorinated hydrocarbons are to be used.

Viscosities can range between 860 and 13 cSt (4000 and 70 SUS) but the recommended running range is from 54 to 13 cSt (245 to 70 SUS).

For further information about fluids see leaflet 694.

Temperature Limits
Ambient
Min. ..... –20 °C (–4 °F)
Max. ..... +70 °C (158 °F)

Fluid temperature

	Petroleum oil	Water-containing
Min.	–20 °C (–4 °F)	+10 °C (50 °F)
Max.*	+80 °C (+176 °F)	+54 °C (129 °F)

* To obtain optimum service life from both fluid and hydraulic system 65 °C (150 °F) normally is the maximum temperature except for water-containing fluids.

For synthetic fluids consult manufacturer or Vickers representative where limits are outside those for petroleum use. Whatever the actual temperature range, ensure that viscosities stay within the limits specified in the "Hydraulic Fluids" section.

Contamination Control Requirements
Recommendations on contamination control methods and the selection of products to control fluid condition are included in Vickers by Danfoss publication 561, "Vickers by Danfoss Guide to Systemic Contamination Control". The book also includes information on the Vickersby Danfoss concept of "ProActive Maintenance". The following recommendations are based on ISO cleanliness levels at 2 µm, 5 µm and 15 µm. For products in this catalog the recommended levels are:

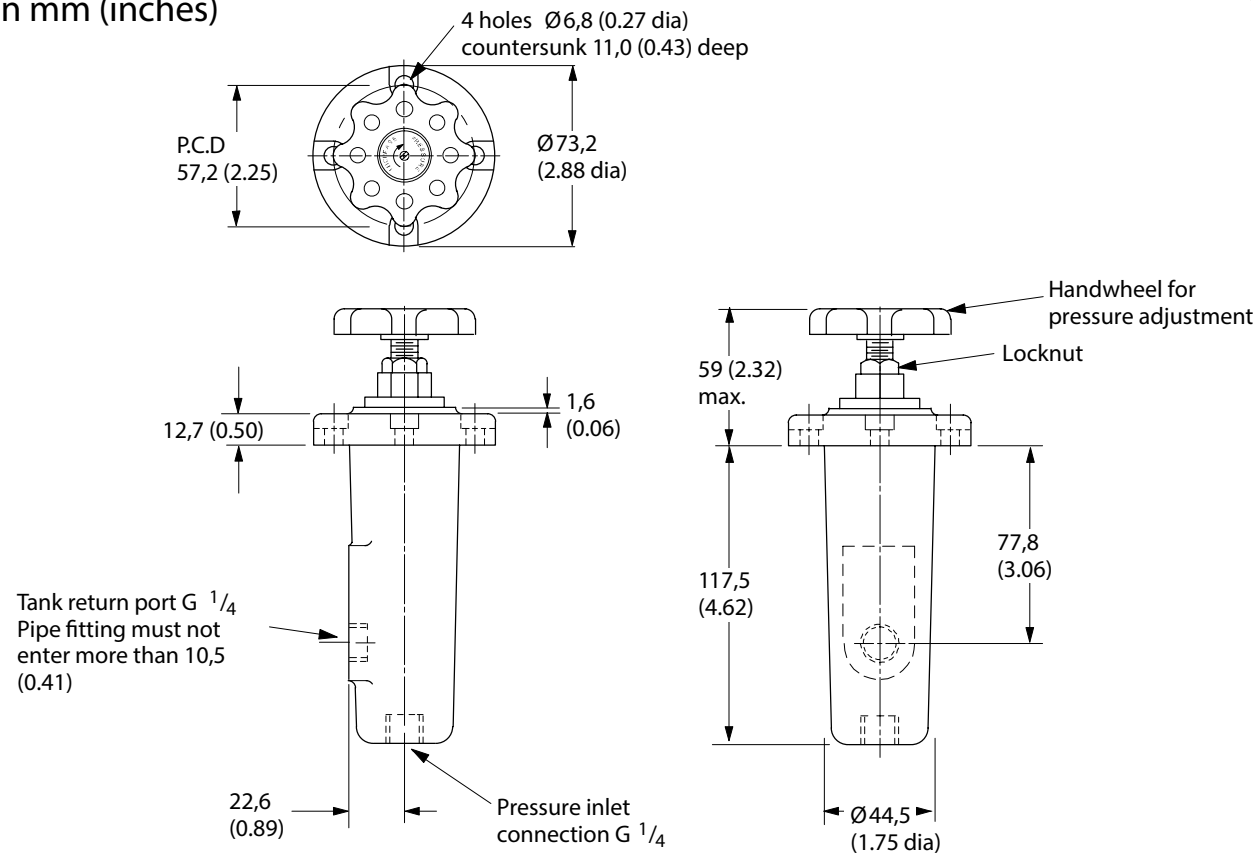
Up to 210 bar (3000 psi) 19/ 17/14

Control Data
The adjust the pressure slacken the locknut and turn the hand-wheel clockwise to increase pressure and counter-clockwise to decrease pressure, retighten locknut after setting the pressure.

The outlet port should be piped direct to tank at atmospheric pressure. Any pressure at the drain port is additive to the pressure setting of the valve.

Installation Dimensions
in mm (inches)

3rd angle projection



Mass

All models ..... 1,6 kg (3.52 lb)

Mounting Attitude

Optional.

Ordering Procedure

Before ordering check availability with your Vickers by Danfoss representative.

When ordering, please specify the complete model designation(s) of the valve(s) required. See “Model Code.”

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