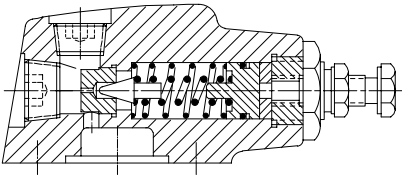


## Remote Control Pressure Relief Valves CGR-02, 21 Design

### Typical Section



### Basic Characteristics

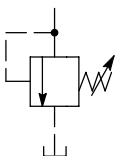
Operating pressures . . . . Up to 210 bar  
(3000 psi)  
Flow rating . . . 4,1 L/min (15.5 USgpm)  
Mounting . . . . . Gasket

### General Description

This valve is suitable as a remote control device for Vickers balanced piston type relief valves, e.g. models ECG-06/10). It is not intended to be used as a relief valve by itself.

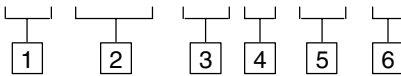
The valve can provide adjustment of a system pressure from a convenient or remote location.

### Functional Symbol



### Model Code

**F3 - CGR - 02 - \* - (K) - 21**



**1 Special seals**  
See "Hydraulic Fluids" section

**2 Pressure relief valve**  
For pilot and remote control

**3 Nominal size**  
02 = 1/4" nominal bore pipe size

**4 Pressure adjustment range**  
B = 5-69 bar (75-1000 psi)  
C = 5-138 bar (75-2000 psi)  
F = 5-210 bar (75-3000 psi)

**5 Handwheel adjustment**  
Omit for hex. head screw version

**6 Design number**  
Subject to change.  
Installation dimensions remain as shown for designs 20-29 inclusive.

### Operating Data

**Maximum Pressure**  
70, 140 or 210 bar (1000, 2000 or 3000 psi) according to adjustment range. See "Model Code" above.

**Maximum Flow Rate**  
All models . . . . 4,1 L/min (15.5 USgpm)

**Control Data**  
The pressure is adjusted by slackening the locknut and turning the adjusting device in a clockwise direction to increase pressure and counter-

clockwise to decrease pressure. Re-tighten locknut after setting the pressure.

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

**Hydraulic Fluids**  
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)

	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**

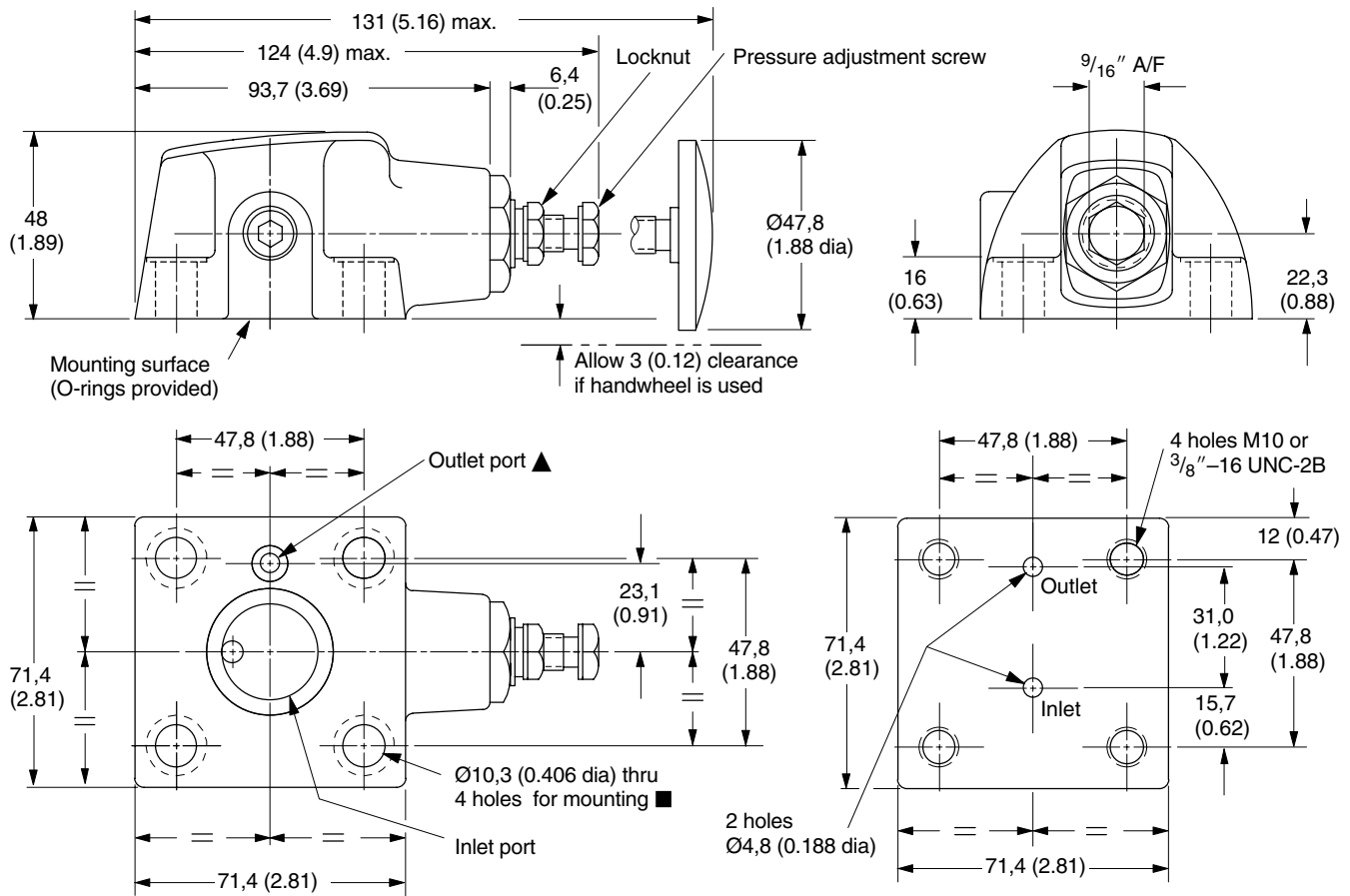
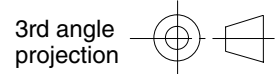
Recommendations on contamination control methods and the selection of products to control fluid condition are included in Vickers publication 561,

“Vickers Guide to Systemic Contamination Control”. The book also includes information on the Vickers 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

**Installation Dimensions – mm (inches)**



- ▲ Connect outlet port directly to tank. Any pressure at this port must be added to relief valve pressure setting.
- Mounting bolt torque (M10 or 3/8" dia bolts) is 3,4 Nm (30 lb ft). Mounting bolts should be SAE grade 7 or better.

**Mounting Pad**

The pad must be flat within 0,013 mm (0.0005 in) and smooth within 1,6 µm (63 microinch).

**Mass**

All models . . . . . 1,3 kg (2.9 lb)

**Ordering Procedure**

When ordering a unit please specify the complete model designation(s). See “Model Code”.

**Mounting Attitude**

Optional.