

Service Data

Vickers®

Pressure Controls



Flange Mounted Pressure Control Valves

CPF3*-08/10/12-*-*-20 Bi-Pressure with Maximum Pressure Override
CPF4*-08/10/12-*-*-20 Tri-Pressure

CPF3/4S-06/08

CODE	■ PRESSURE	
	ADJ. S/A	MAX. PRESSURE
	Head 1,2 & 3	bar (psi)
AW	02-140463	50 (725)
BW	02-140464	100 (1450)
FW	02-140465	207 (3000)
GW	02-140466	275 (4000)
AH	02-140467	50 (725)
BH	02-140468	100 (1450)
FH	02-140469	207 (3000)
GH	02-140470	275 (4000)
AK	02-140471	50 (725)
BK	02-140472	100 (1450)
FK	02-140473	207 (3000)
GK	02-140474	275 (4000)

Torque S/A to 65–75 N.m (48–55 lb.ft.)

- ▲ 690331 "O"Ring
- ▲ 893376 Back-up ring
- ▲ 689294 "O"Ring
- ▲ 893377 Back-up ring

Head #3

5/64" Hex key req'd to lock/unlock set screw

- ▲ 262332 "O"Ring (2 Req'd) (Ref.)
- ▲ 263492 "O"Ring
- 398071 Plug
- Pressure adj. S/A (See table)
- ▲ 262344 "O"Ring
- ▲ 197600 Back-up ring
- ◆ 819810 Spring

TORQUES

Part	N.m	lb.ft.
298137	65–80	48.0–59.0
315932	29–32	21.3–23.6
398071	9.8–10.2	7.2–7.5
473919	29–32	21.3–23.6
977935		
977937	2–4	1.5–3.0
977938		

- ▲ 262330 "O"Ring
- 977935 Plug (External Drain Only)

- ▲ 262393 "O"Ring -06
- ▲ 262398 "O"Ring -08

Cartridge block (See table)

▲ Included In Seal Kit 02-301166 (SAE)
Included In Seal Kit 02-301167 (BSP)

■ Bond in place with Loctite 222 or equivalent

Parts prefixed with symbols available only in kits.

RELIEF VALVE BLOCK

Internal Drain	02-155251
External Drain (Shown)	02-301152 SAE 02-301153 BSP

298137 Screw (4 Req'd)

398071 Plug (2 Req'd)

▲ 263492 "O"Ring (2 Req'd)

Relief Valve Block (See table)

■ 977937 Orifice
02-303846 Body & Plug S/A

Head #2

Head #1

Use DG4V3(S)-0C-***-60 for CPF3
Use DG4V3(S)-2C-***-60 for CPF4

Refer to I-3886-S for pilot valve parts breakdown

675148 Pilot Valve Attaching Screws (4 req'd) (Ref.)

Torque 4.5–5.7 N.m (3.3–4.2 lb. ft.)

◆ 02-111938 Poppet & sleeve S/A

▲ 262330 "O"Ring

■ 977938 Orifice

▲ 594047 Back-up ring

▲ 262362 "O"Ring (2 Req'd)

■ 977935 Plug ("P" External pilot only)

Plug & "O"Ring (See table) (Internal pilot only)

	SAE	BSP
Plug	315932	473919
"O" Ring	▲ 263496	704766

CARTRIDGE BLOCK

SIZE	SAE	BSP
06	02-155245	02-155265
08	02-155247	02-155267

CPF3/4*-10/12

CODE	■ PRESSURE		MAX. PRESSURE bar (psi)
	ADJ.	S/A Head 1, 2, 3	
AW	02-140463		50 (725)
BW	02-140464		100 (1450)
FW	02-140465		207 (3000)
GW	02-140466		275 (4000)
			350 (5000)
AH	02-140467		50 (725)
BH	02-140468		100 (1450)
FH	02-140469		207 (3000)
GH	02-140470		275 (4000)
			350 (5000)
AK	02-140471		50 (725)
BK	02-140472		100 (1450)
FK	02-140473		207 (3000)
GK	02-140474		275 (4000)
			350 (5000)

Torque S/A to 65-75 N.m (48-55 lb.ft.)

▲■ 689294 "O"Ring

▲■ 893377 Back-up ring

■ Pressure adj. S/A
(See table)

Head #3

5/64" Hex key req'd to lock/unlock set screw

◆ 02-157559 Cartridge valve insert

TORQUES

Part	N.m	lb.ft.
10955	110-115	81.1-84.8
315932	29-32	21.3-23.6
398071	9.8-10.2	7.2-7.5
473919	29-32	21.3-23.6
873753		
977935	2-4	1.5-3.0
986032		

▲◆ 262401 "O"Ring (2 Req'd)

▲◆ 277707 Back-up ring (4 Req'd)

▲ 262330 "O"Ring

■ 977935 Plug (External Drain Only)

▲ 262399 "O"Ring -10

▲ 262402 "O"Ring -12

▲ Included In Seal Kit 02-301168 (SAE)

Included In Seal Kit 02-301169 (BSP)

◆ Included In Cartridge S/A

■ Included In Press. Adj. S/A

■ Bond in place with Loctite 222 or equivalent

Parts prefixed with symbols available only in kits.

RELIEF VALVE BLOCK

Internal Drain	02-155258
External Drain	02-301156 SAE 02-301157 BSP

10955 Screw (4 Req'd)

398071 Plug

▲ 263492 "O"Ring

398071 Plug (2 Req'd)

▲ 263492 "O"Ring (2 Req'd)

Relief Valve Block (See table)

■ 986032 Orifice

02-303846 Body & Plug S/A

Head #2

Head #1

Use DG4V3(S)-0C-***-60 for CPF3
Use DG4V3(S)-2C-***-60 for CPF4

Refer to I-3886-S for pilot valve parts breakdown

675148 Pilot Valve Attaching Screws

(4 req'd) (Ref.)

Torque 4.5-5.7 N.m (3.3-4.2 lb. ft.)

▲ 262330 "O"Ring

■ 873753 Orifice

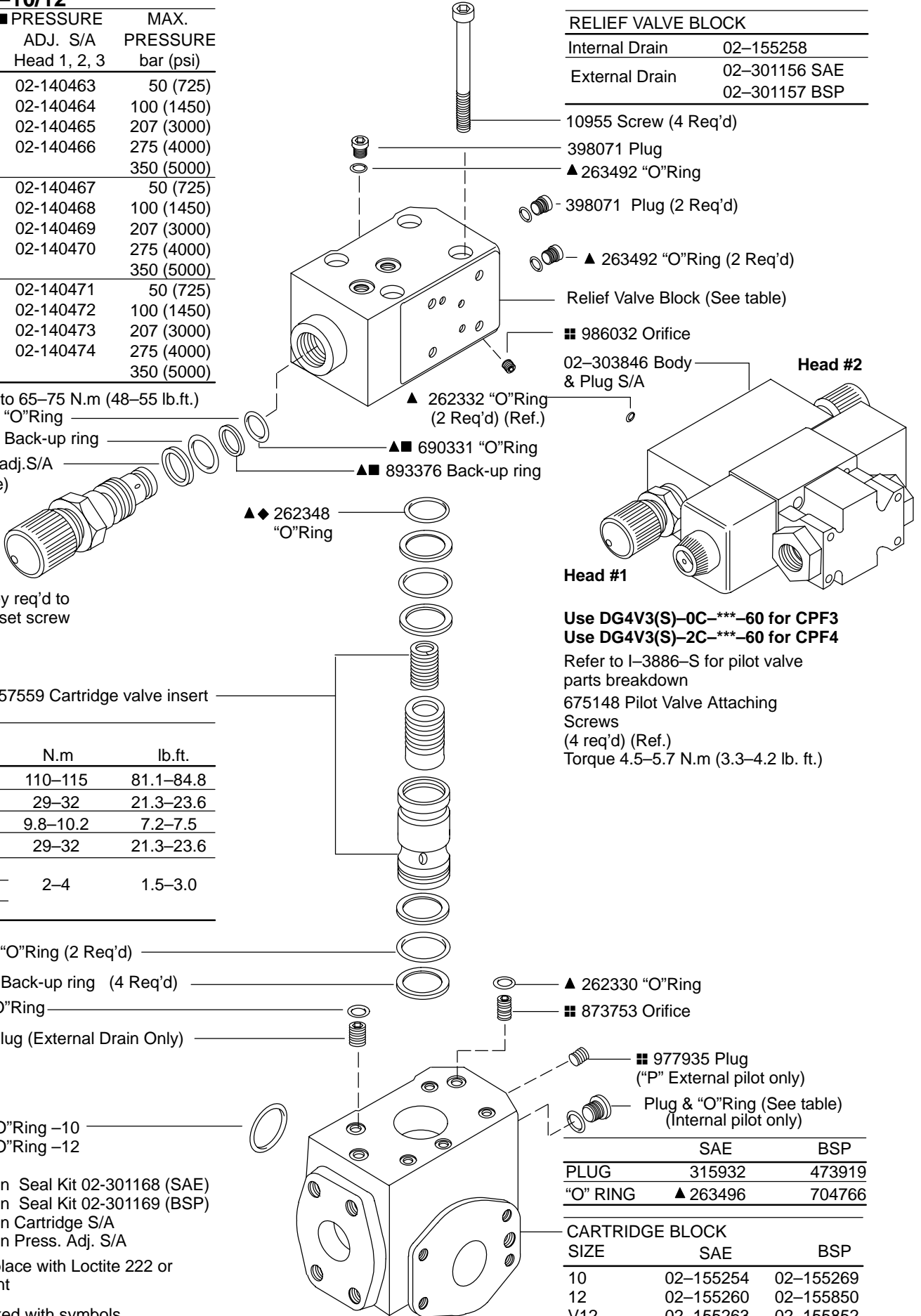
■ 977935 Plug ("P" External pilot only)

Plug & "O"Ring (See table) (Internal pilot only)

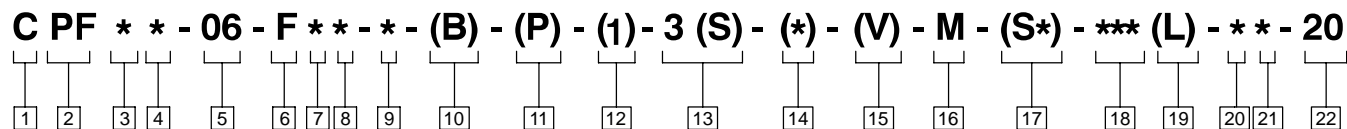
	SAE	BSP
PLUG	315932	473919
"O" RING	▲ 263496	704766

CARTRIDGE BLOCK

SIZE	SAE	BSP
10	02-155254	02-155269
12	02-155260	02-155850
V12	02-155263	02-155852



MODEL CODE BREAKDOWN



1 Valve Function

C - Relief

2 Mounting Type

PF - Pump flange mounting

3 Unit Type

3 - Bi-pressure with safety
4 - Tri-pressure

4 Flange Type

S - SAE J518C 4-bolt flange standard series code 61 (All sizes)
V - SAE J518C 4-bolt high pressure code 62 (12 size only)

5 Valve Size

06 - 3/4 inch
08 - 1 inch
10 - 1 1/4 inch
12 - 1 1/2 inch

6 Head 1 Maximum Pressure Adjustment

A - 50 bar (725 psi)
B - 100 bar (1450 psi)
F - 207 bar (3000 psi)
G - 275 bar (4000 psi)
350 bar (5000 psi) - (CPF*V-12 models only)

7 Head 2 Maximum Pressure Adjustment

A - 50 bar (725 psi)
B - 100 bar (1450 psi)
F - 207 bar (3000 psi)
G - 275 bar (4000 psi)
350 bar (5000 psi) - (CPF*V-12 models only)

8 Head 3 Maximum Pressure Adjustment

A - 50 bar (725 psi)
B - 100 bar (1450 psi)
F - 207 bar (3000 psi)
G - 275 bar (4000 psi)
350 bar (5000 psi) - (CPF*V-12 models only)

Note: Head 3 is the maximum pressure override adjustment. The pressure range selection should be at least 250 psi higher than those for Heads 1 and 2.

9 Control Type

W - Screw adjust with locknut
H - Handknob adjust without key
K - Micrometer adjust with keylock

10 Thread Type

Remote Control/Vent Connection
Blank - SAE-6 O-ring boss port (.5625-18 UNF-2B thd.)
B - BSP-G 1/4 (1/4" BSPF)

11 Remote Pilot

Blank - Internal pilot
P - External pilot

12 Remote Drain

Blank - Internal drain
1 - External drain

13 Vent Valve

3 - Standard performance
3S - High performance -
Uses OC type spool/spring arrangement for CPF3 and 2C type spool/spring arrangement for CPF4; other features are optional. Refer to Vickers service literature I-3866-S.

14 Manual Override Options

15 Solenoid Energization Identification

16 Electrical Options Flag

17 Spool Position Monitoring Switch

18 Solenoid Type/Electrical Connections

19 Indicator Lights

20 Coil Identification

21 Tank Rating Pressure

2 - 10 bar (145 psi) for spool position indicator models.
5 - 100 bar (1450 psi) for standard performance models, DG4V-3(S), with AC or DC solenoids.
6 - 210 bar (3045 psi) for high performance models, DG4V-3, with AC solenoids.
7 - 210 bar (3045 psi) for high performance models, DG4V-3 with DC solenoids.

22 Design Number, 20 series