

Model	Knob	*Core Tube S/A
DG4V-3-2-*	508113	02-300529
DG4V-3S-2-*	694272	02-135785
DG4V-3-2-P2-*	508113	02-300529
DG4V-3S-2-P2-*	694272	02-135785

Restrictor Plug  
Install In P,T,A, Or B As Required

CODE	ORIFICE DIA.	PART #
03	0,30 (0.012)	694341
06	0,60 (0.024)	694342
08	0,80 (0.030)	694343
10	1,00 (0.040)	694344
13	1,30 (0.050)	694345
15	1,50 (0.060)	694346
20	2,00 (0.080)	694347
23	2,30 (0.090)	694348

- 473710 Screw W/J models (2 Req'd)
- 473269 Screw P12L models (2 Req'd)
- 471027 Washer P12L models (2 Req'd)
- 262327 "O" Ring P12L models (4 Req'd) "C" models (2 Req'd) "A/B" models

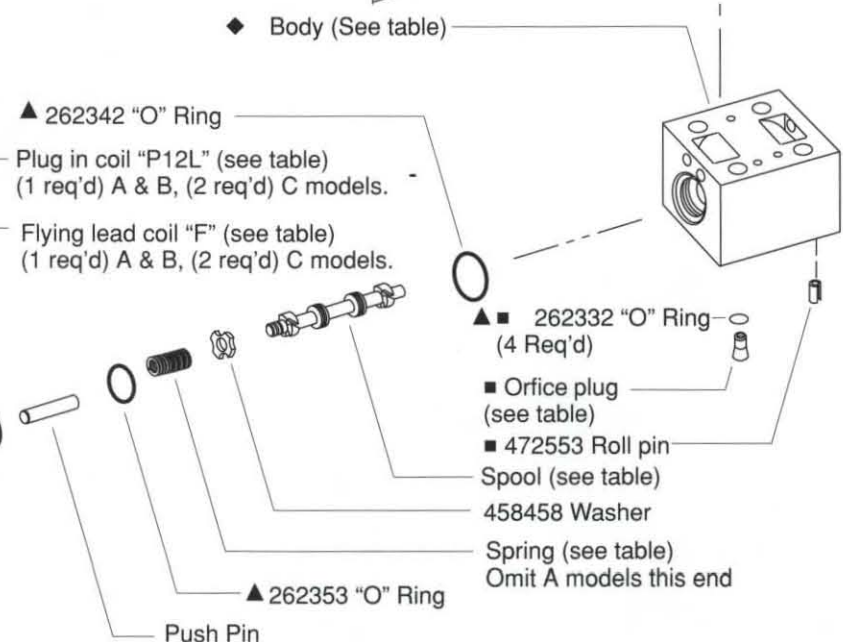
Orifice (1 req'd per core tube)  
Refer to Orifice Changing Procedure

CODE	PART #	COLOR
00	Orifice omitted	
07	835134	Green
08	835135	Blue
09	893320	Purple

- 262342 "O" Ring
- Plug in coil "P12L" (see table) (1 req'd) A & B, (2 req'd) C models.
- Flying lead coil "F" (see table) (1 req'd) A & B, (2 req'd) C models.
- 262332 "O" Ring (4 Req'd)
- Orifice plug (see table)
- 472553 Roll pin
- Spool (see table)
- 458458 Washer
- Spring (see table)
- Omit A models this end
- 262353 "O" Ring
- Push Pin
- \*Core Tube S/A (see table)
- DIN 4400 coil (shown) (see table) U,KU,SP1,SP2 (1 req'd) A & B, (2 req'd) C models.
- 262392 "O" Ring
- Knob (see table)

Blank Nameplates (DG4V-3S-60 Standard Valve)		
Model Code	Nameplate	
DG4V-3S-***-M-U-***60	694302	
DG4V-3S-***-M-F/FPA3/FPA5-***60	694386	
DG4V-3S-***-M-FPB-***60	694363	
DG4V-3S-***-M-FPBL-***60	694362	
DG4V-3S-C/N***-M-P-***60	694364	
DG4V-3S-A/B/F***-M-P-***60	694365	
DG4V-3S-AL/BL/FL***-M-P-***60	694366	

- 02-113349 Screw (4 Req'd "F" models)
  - 471277 Screw (2 Req'd "U" models)
  - 471274 Screw (4 Req'd "P12L" models)
  - 890333 Cover W/J models
  - 890332 Gasket W/J models
  - 890330 Strap W/J models
  - 36212 Screw (2 Req'd) W/J models
  - Terminal/Conduit box (See table)
  - 890332 Gasket W/J models
  - 576915 Screw (ground) W/J models
- | Body   | Type             |
|--------|------------------|
| 507334 | Flying lead coil |
| 507731 | Din 4400 coil    |
| 866039 | Plug in coil     |



- Available in seal kit 858996
- Omit for Din models
- Included in Core Tube S/A
- Available in qty's. of 25 or more only
- Not available for sale
- Torque 44-62 lbf. ft. (5,0-7,0 N.m)
- Torque 18-25 lbf. in. (2,3-2,8 N.m)
- Torque 22-27 lbf. ft. (30-36 N.m)
- Torque 21-26 lbf. in. (2,5-3,0 N.m)

Blank Nameplates (DG4V-3-60 High Performance Valve)	
Model Code	Nameplate
DG4V-3-***-M-U-***7-60	694303
DG4V-3-***-M-U-***2/6-60	694451
DG4V-3-***-M-F/FPA3/FPA5-***7-60	694387
DG4V-3-***-M-FPB-***60	865929
DG4V-3-***-M-FPBL-***60	865930
DG4V-3-C/N***-M-P-***60	865933
DG4V-3-A/B/F***-M-P-***60	865934
DG4V-3-AL/BL/FL***-M-P-***60	865935

For more information on options refer to service drawing I-3886-S.

NOTE  
Right hand assembly shown for all single solenoid valves, for left hand assembly all parts reversed except body (& spool on "B" builds) and electrical connectors (where applicable).

Model Code	Coil Identification Letter
Coil letter	Coil S/A Voltage DC
	Coil S/A "U" models
	Coil S/A "SP1" models
	Coil S/A "SP2" models
	Coil S/A "KU" models
	Coil S/A "P12L" models
GH	12 VDC 02-123958 02-123938 02-123950 02-123942 02-140393 02-124274
DTH	18 VDC 02-124394 02-124392 02-124719 02-124389 02-148712 02-124511
HH	24 VDC 02-123959 02-123939 02-123951 02-123943 02-124275
DJH	98 VDC 02-123960 02-123940 02-123952 02-123944 02-124238
PH	110 VDC 02-123961 02-123941 02-123953 02-123945 02-124276
SH	220 VDC 02-124260 02-124441

Type "F" flying lead coils must be powered by DC electrical signal. Type P12L coils must be powered by 110-120, 50-60 Hz AC rectified to DC signal. DIN rectified connectors ("11" or "12" in model code) can be used to convert AC volts to DC voltage to power the valve.

- 507908 Plug
- 262342 "O" Ring
- Spring (See table)
- 458458 Washer
- 676560 Plug (2 Req'd)

DG4V-3(S)-\*A2 \*\*-(V)M-FW-60 Spring offset to CYL. "A", shift to center.  
DG4V-3(S)-\*B2 \*\*-(V)M-FW-60 Spring centered, Sol. "A" removed. Refer to other end of valve for common part numbers except as noted.

DG4V-3S-\*C2 \*\*-(V)M-FW-60 Spring centered, dual solenoid. Refer to other end of valve for common part numbers except as noted.

- 507972 Plug & manual override S/A
- 262342 "O" Ring
- Spring (See table) 1 req'd
- 458458 Washer
- 676560 Plug (2 Req'd)

DG4V-3(S)-\*A2 \*\*-\*P2-(V)M-FW-60 Manual override in end cover. Refer to other end of valve for common part numbers except as noted.

Model Code	Terminal Box "W/J" Flying lead	Conduit Box "P12L" Plug in	Type
DG4V3(S)-A/B/C-W	890341		Single/double coil
DG4V3(S)-A/B/C-J	890342		
DG4V3(S)-C-P12L		866000	Double coil with rectifier
DG4V3(S)-A/B-P12L		866001	Single coil with rectifier

Rotate conduit box/rectifier/light assembly 180° for models AL, BL, and 8B with solenoid mounted on B port side of body.

Spool/Spring Arrangement DG4V3/DG4V3S Models

Model	Type	DG4V3 Spool	DG4V3 Spring	DG4V3S Spool	DG4V3S Spring
-B/C	2"	892913	890195	892913	507889
	3"/31"	927027	507889	927027	507889
	6"	892914	507889	892914	694299
	8"	02-303660	927200	893319	507889
	33"	892915	507889	892915	507889
-A	0"	02-148720	890195	02-148720	694299
	2A	892916	890195	892916	507889

Assemble type "3" spool in body with narrow center land towards A port.  
Assemble type "31" spool in body with narrow center land towards B port.

### Orifice Changing Procedure

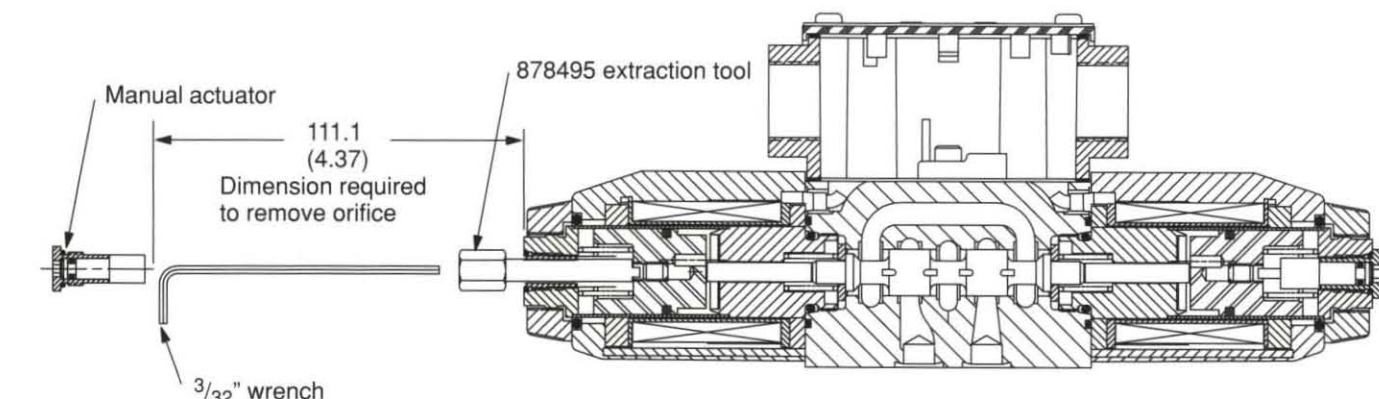
- WARNING**
- Before breaking a circuit connection make certain that power is off and system pressure has been released. Lower all vertical cylinders, discharge accumulators and block any load whose movement could generate pressure. Plug all removed units and cap all lines to prevent entry of dirt into the system.

- Using a 5/32" hex key, remove manual actuator plug and spring from the end of solenoid (Tightening torque 6.2-7.3 N.m 55-65 lbf.in.)
- Insert extraction tool (878495) into solenoid via the manual actuator opening. Rotate tool until aligned and push pin into slot in armature.
- Using 1/2" wrench and tool to prevent the armature from rotating, insert 3/32" hex key down the center of tool and remove orifice plug.

- Replace by the same method, tightening orifice snug to ensure bottoming of threads. Smaller orifices increase response times, larger orifices decrease response time.

### Orifice & tool kit 02-140211

For fine tuning shift performance, orifice must be ordered separately. The kit includes (2) each of .7, .8 & .9 mm dia. orifices, (1) installation tool, (1) 5/32" hex key and (1) 3/32" hex key.





## Model Code

DG4V 3 (S) - \*\* (L) 2 \*\* - (P2) - (V) M - \* \* \* \* (L) - \*\*H \* - 60 - (P\*-A\*-B\*-T\*)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

### 1 Valve Type

D - Directional control valve  
G - Subplate mounted  
4 - Solenoid operated  
V - Rated pressure 350 bar (5075 psi)

### 2 Interface

3 - ISO 4401-03, CETOP 3 (NFPA DO3)

### 3 Valve performance

S - Standard performance  
Blank - High performance

### 4 Spool types

0 - Open center  
2 - Closed center (all ports)  
3 - P & B closed, A to T  
6 - Closed center (P only)  
8 - Tandem center (open crossover)  
31 - P & A closed, B to T  
33 - Closed center (bleed A & B)

### 5 Spool/Spring Arrangement

A - Spring offset, single solenoid  
AL - Same as A but left hand build  
B - Spring centered, single solenoid  
BL - Same as B but left hand build  
C - Spring centered

### 6 Soft shift valve

### 7 Soft shift orifice size

00 - No orifice  
07 - 0.7 mm dia.  
08 - 0.8 mm dia.  
09 - 0.9 mm dia.  
20 - 2.0 mm dia\*

\* Minimum orifice size recommended for high performance type "8C" spool.

### 8 Manual override options

Blank - Override in solenoid end only.  
P2 - Manual override in end cap & solenoid, A & B models only.

### 9 Reverse solenoid identification

Blank - ANSI B93 energize solenoid A to give flow P to A.  
V - Solenoid identification determined by position of solenoid (i.e. solenoid A is at port A end of valve, solenoid B is at port B end of valve).

### 10 Flag Symbol

M - (Introduces electrical features and options.)

### 11 Coil Type Options

F - Flying lead type coils  
U - DIN 4400 coils.  
SP1 - Single 1/4" male spade.  
SP2 - Dual 1/4" male spade.  
P12L - Plug-in coils w/rectifier in junction box, lights included.  
KU - Top exit flying leads.

### 12 Coil Connector Options

("U" type coils only, omit if not required.)  
1 - Connector fitted.  
6 - Connector with light fitted.  
11 - Rectifier with lights fitted.  
12 - Rectifier fitted.

### 13 Electrical Connector Options

("F" type coils only, omit if not required.)  
PA - Instra-plug male recept. only.  
PA3 - 3-pin receptacle.  
PA5 - 5-pin receptacle.  
PB - Instra-plug male & female recept.  
T - Terminal block.

▲ For more information on options refer to service drawing I-3886-S.

### 14 Wiring Housing Thread Options

("F" type coils only, omit if not required.)  
W - 1/2" NPT  
J - M20 x 1.5 - 6H  
G - G 1/2"

### 15 Solenoid Indicator Light Options

(Not available on PA, U, SP1, SP2, omit if not required.)

### 16 Coil Identification Letter Options

GH - 12V DC  
DTH - 18V DC  
HH - 24V DC  
DJH - 98V DC (req'd. for P12L models.)  
PH - 110V DC  
SH - 220V DC

### 17 Tank Pressure Rating

2 - 10 bar (145 psi) for DG4V-3S  
5 - 100 bar (1450 psi) for DG4V-3S  
7 - 207 bar (3000 psi) for DG4V-3

### 18 Design Number

### 19 Port Orifices

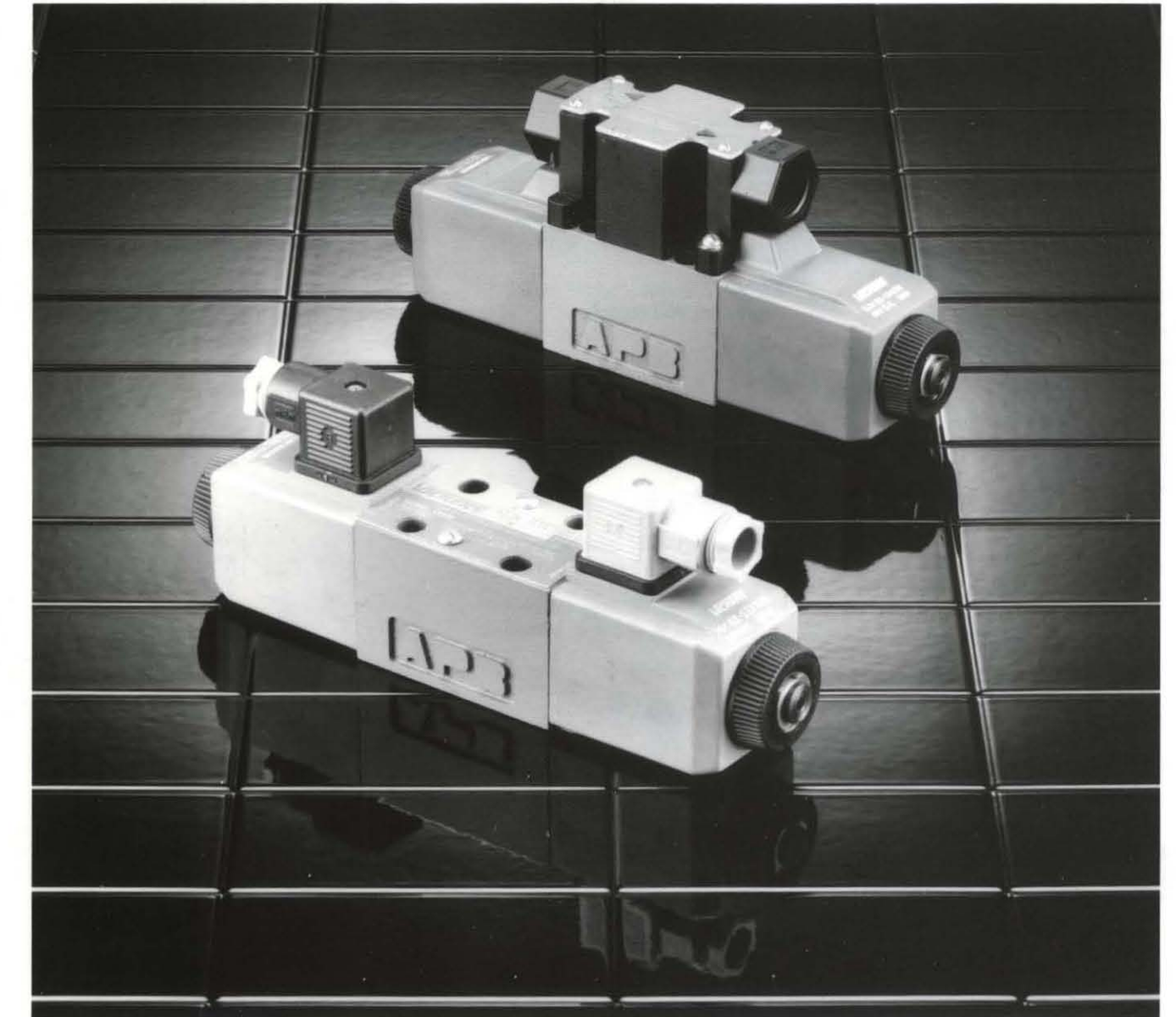
03 - 0.3 mm dia.  
06 - 0.6 mm dia.  
08 - 0.8 mm dia.  
10 - 1.0 mm dia.  
13 - 1.3 mm dia.  
15 - 1.5 mm dia.  
20 - 2.0 mm dia.  
23 - 2.3 mm dia.  
(Example: "P03" = 0.3 mm dia. orifice in P port of valve. Omit if not required.)

Service Data

**VICKERS**

## CETOP 3 Size Soft Shift Directional Control Valves

DG4V 3 (S) - \*\* (L) 2 \*\* - (P2) - (V) M - \*\*\*\* (L) - \*\*H \* - 60 - (P\* - A\* - B\* - T\*)



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