

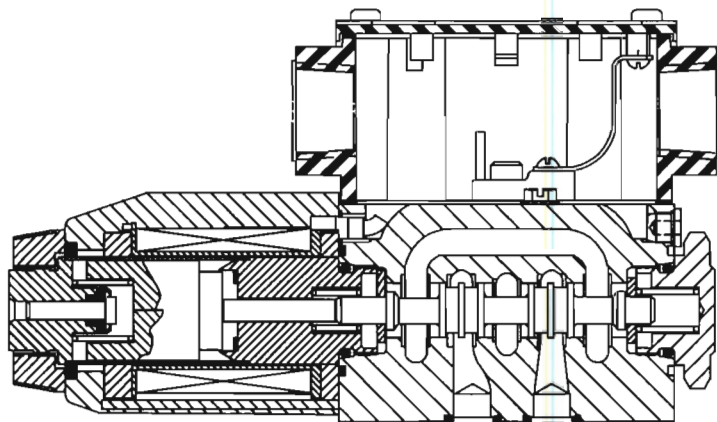
Vickers™

Valves

I-3886-S
05-24-2001

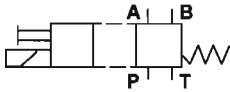
EAT•N

DG4V-3(S)-*-(L)-*-(V)-M-(S*)*****-(L)-* 60**
Directional Control Valve
350 Bar (5075psi) P, A, & B Ports

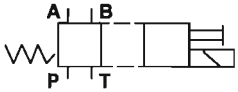


VICKERS®

DG4V-3(S)-*A(L)/B(L)-FJ/FW-60
Spring offset/Spring centered



Single solenoid valves, solenoid at "A" port end. Transient condition only.

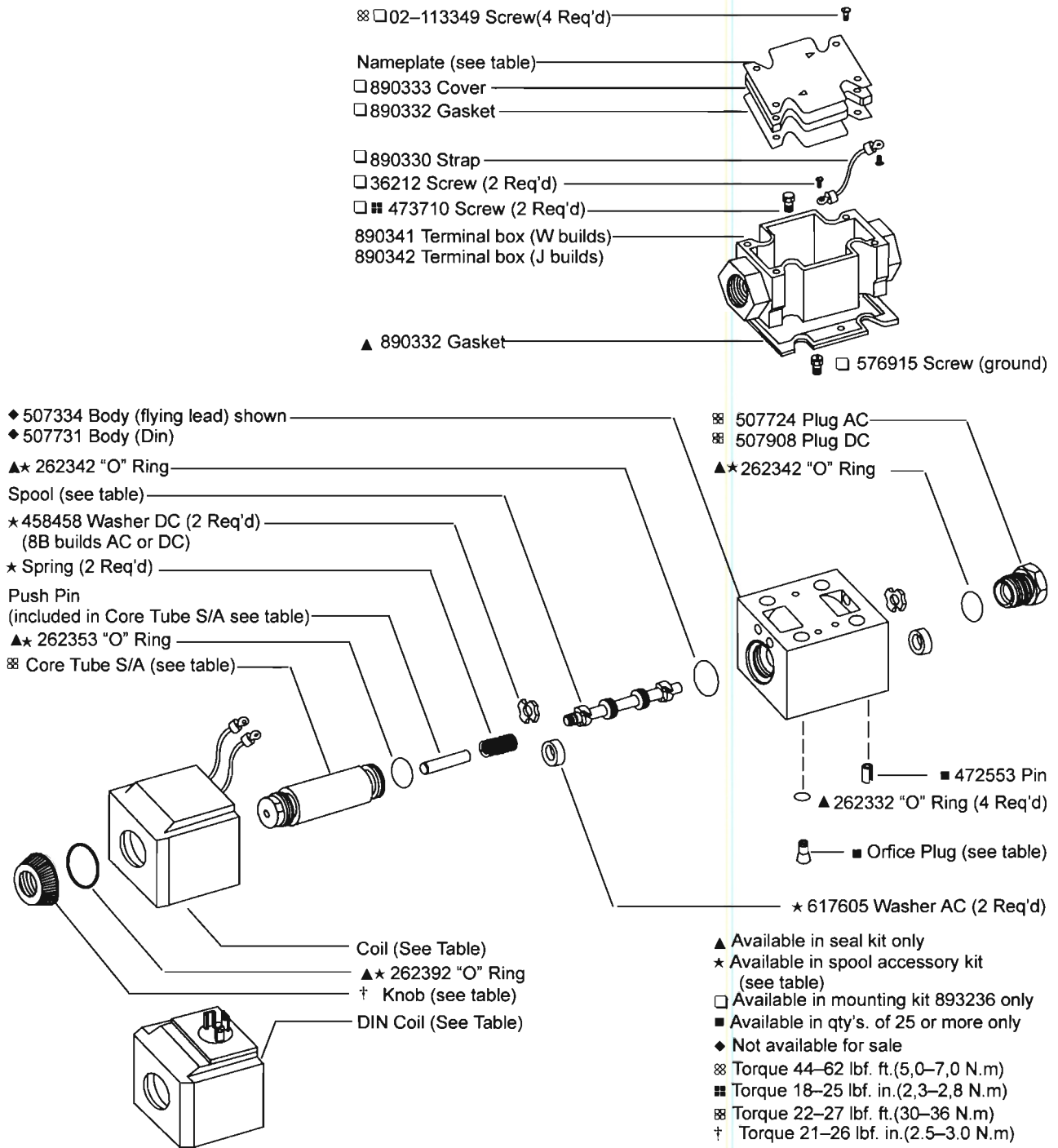


Single solenoid valves, solenoid at "B" port end. Transient condition only.

MODEL	† KNOB	⊗ CORE TUBE S/A
DG4V-3-AC	508113	508111
DG4V-3-DC	508113	508124
DG4V-3S-AC	694274	890246
DG4V-3S-DC	694272	694323

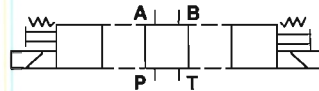
NOTE

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



MODEL	KNOB	CORE TUBE S/A
DG4V-3-AC	508113	508111
DG4V-3-DC	508113	508124
DG4V-3S-AC	694274	890246
DG4V-3S-DC	694272	694323

DG4V-3(S)-*C-FJ/FW-60 Spring centered



Double solenoid valves, spring centered
Transient condition only.

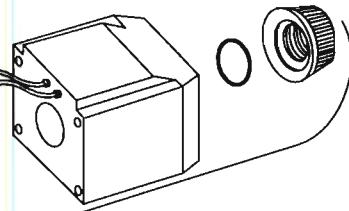
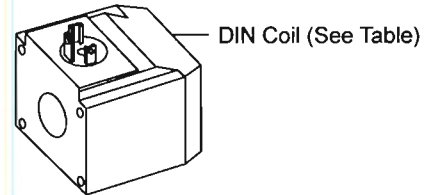
Nameplate (see table) ⌘ □ 02-113349 Screw (4 Req'd)

□ 890333 Cover
 □ 890332 Gasket

□ 890330 Strap □ 36212 Screw (2 Req'd)

■ 473710 Screw (2 Req'd)
 890341 Terminal box (W builds)
890342 Terminal box (J builds)

□ 890332 Gasket



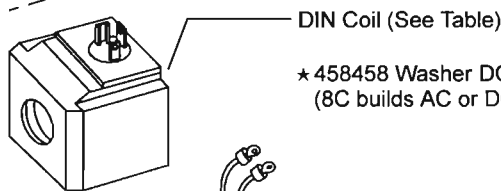
◆ 507334 Body (flying lead) shown
◆ 507731 Body (Din)

□ 576915 Screw (ground)

NOTE
Refer to other end of valve for common part numbers.

■ 472553 Roll Pin
 ▲ 262332 "O" Ring (4 Req'd)
 ■ Orifice Plug (see table)

▲★ 262342 "O" Ring



★ 458458 Washer DC (8C builds AC or DC)

Spool (see table)

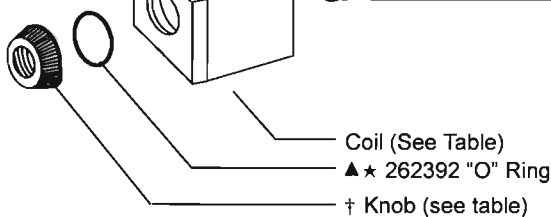
★ 617605 Washer AC

★ Spring

▲★ 262353 "O" Ring

Push Pin (included in CoreTube S/A)

⌘ Core Tube S/A (see table)



Coil (See Table)

▲★ 262392 "O" Ring

† Knob (see table)

▲ Available in seal kit only

★ Available in spool accessory kit (see table)

□ Available in mounting kit 893236 only

■ Available in qty's. of 25 or more only

◆ Not available for sale

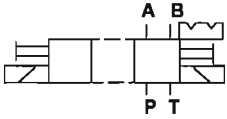
⌘ Torque 44-62 lbf. ft. (5.0-7.0 N.m)

■ Torque 18-25 lbf. in. (2.3-2.8 N.m)

⌘ Torque 22-27 lbf. ft. (30-36 N.m)

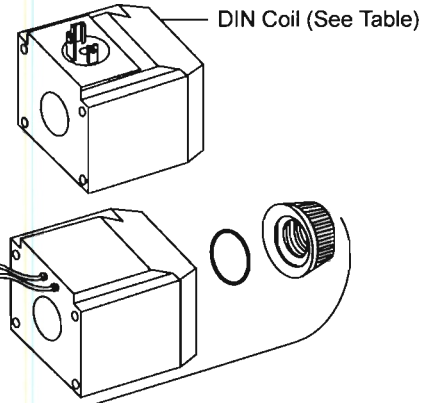
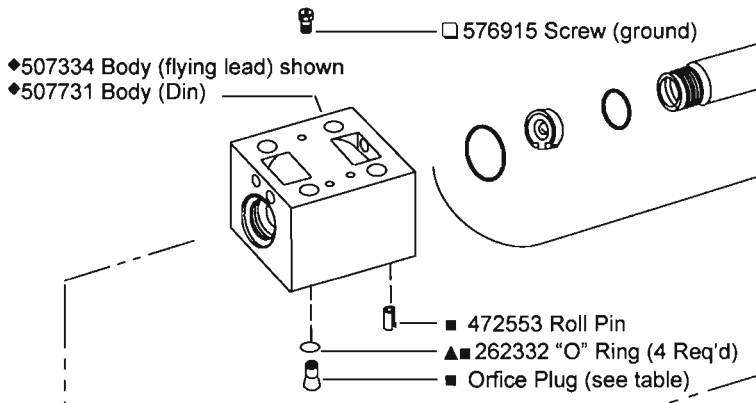
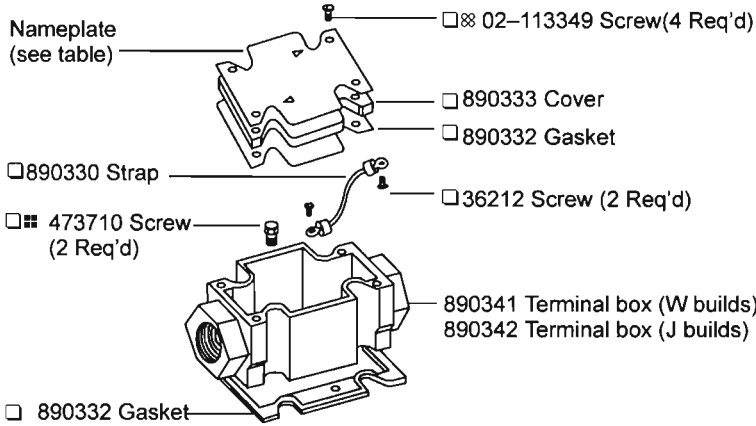
† Torque 21-26 lbf. in. (2.5-3.0 N.m)

DG4V-3(S)-*N-FJ/FW-60
No spring detented

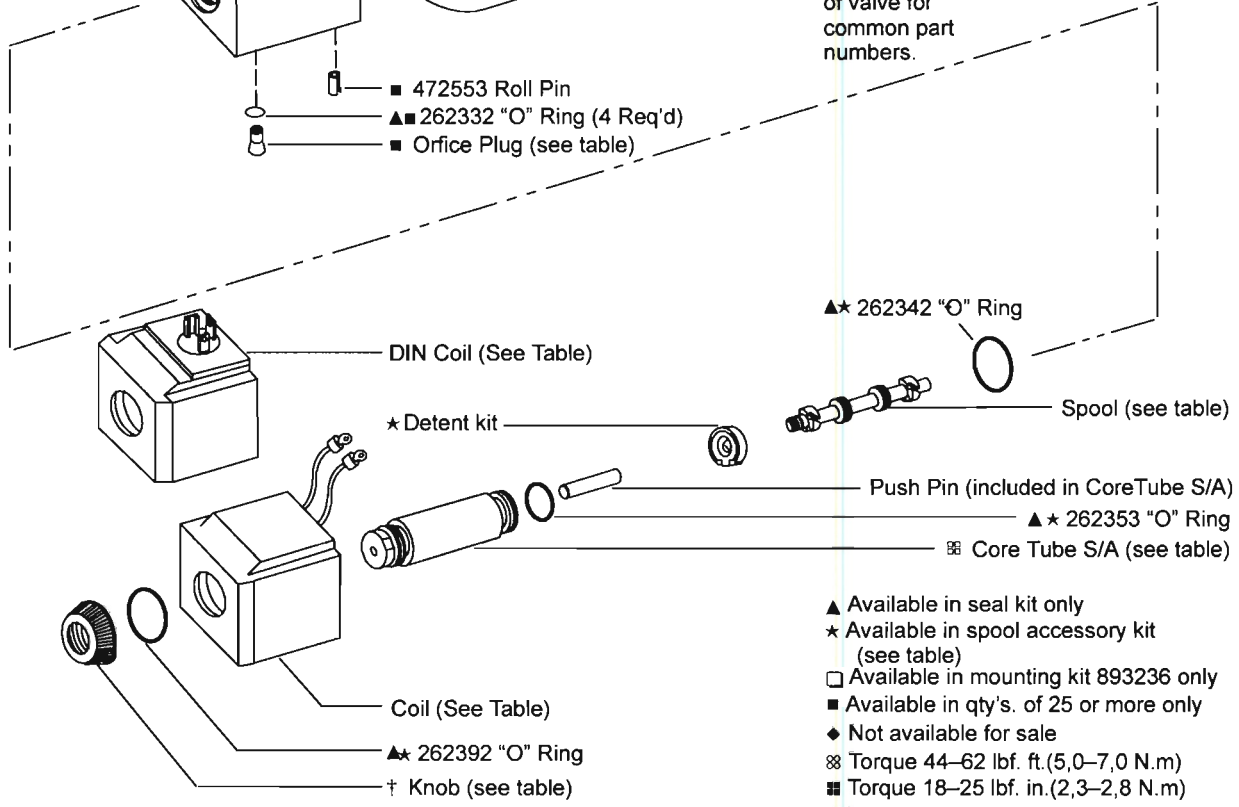


Double solenoid valves, two position, detented. Transient condition only.

MODEL	† KNOB	⊗ CORE TUBE S/A
DG4V-3-AC	508113	508111
DG4V-3-DC	508113	508124
DG4V-3S-AC	694274	890246
DG4V-3S-DC	694272	694323



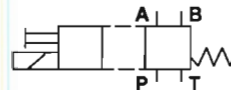
NOTE
 Refer to other end of valve for common part numbers.



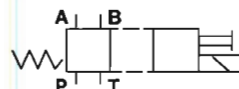
- ▲ Available in seal kit only
- ★ Available in spool accessory kit (see table)
- Available in mounting kit 893236 only
- Available in qty's. of 25 or more only
- ◆ Not available for sale
- ⊗ Torque 44-62 lbf. ft.(5,0-7,0 N.m)
- Torque 18-25 lbf. in.(2,3-2,8 N.m)
- ⊗ Torque 22-27 lbf. ft.(30-36 N.m)
- † Torque 21-26 lbf. in.(2.5-3.0 N.m)

MODEL	† KNOB	⊠ CORE TUBE S/A
DG4V-3-AC	508113	508111
DG4V-3-DC	508113	508124
DG4V-3S-AC	694274	890246
DG4V-3S-DC	694272	694323

DG4V-3(S)-*A(L)/B(L)-S3/S4-FJ/FW-60 Switch option



Single solenoid valves, solenoid at "A" port end. Transient condition only.



Single solenoid valves, solenoid at "B" port end. Transient condition only.

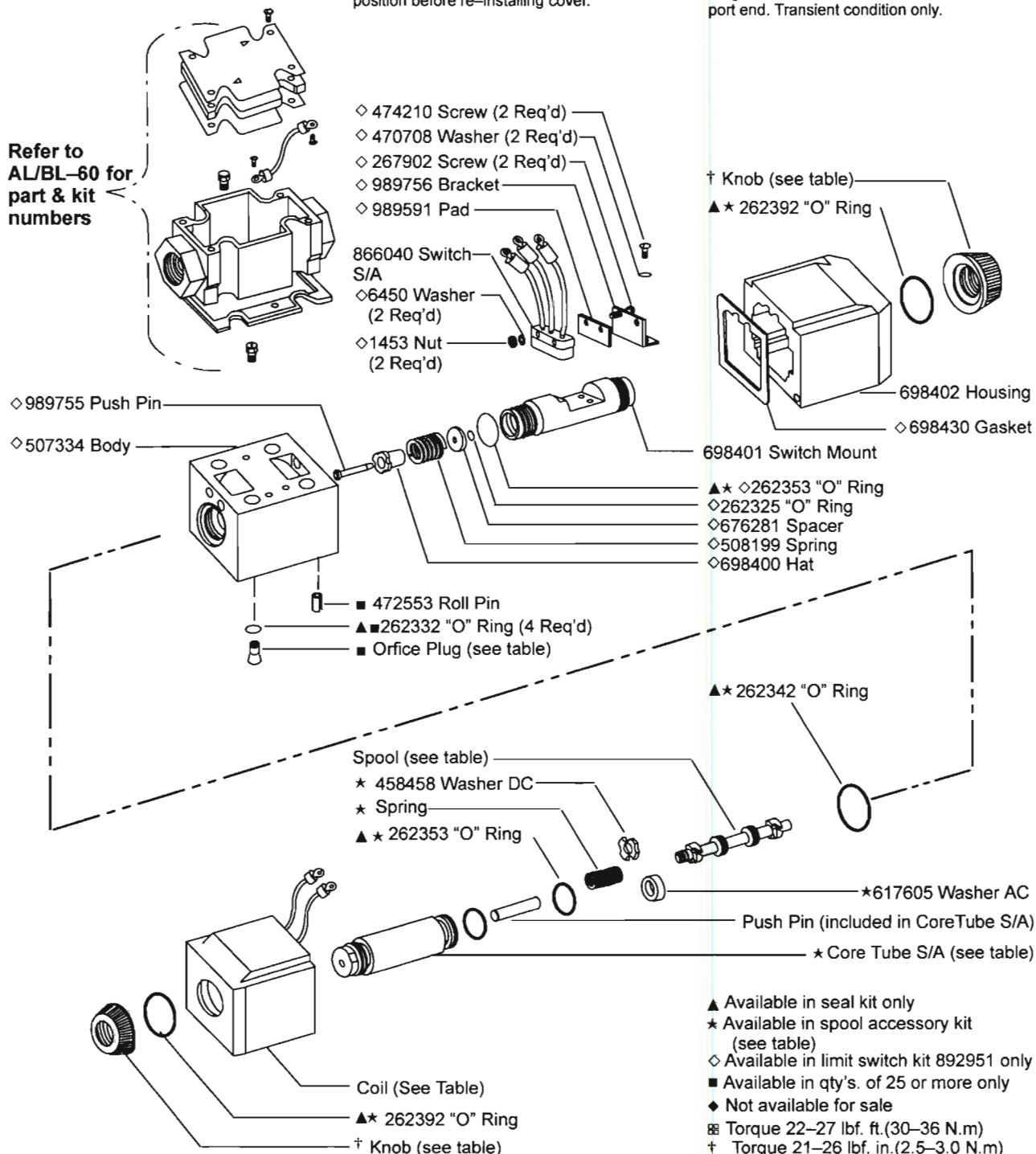
NOTE

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

LIMIT SWITCH ADJUSTMENT

Remove cover and energize solenoid. Loosen switch retaining screws and position switch to obtain complete circuit from common (C) thru normally open (NO) contacts. De-energize solenoid and make sure switch returns to normally open (NO) position before re-installing cover.

Refer to AL/BL-60 for part & kit numbers



BLANK NAMEPLATES (DG4V-3S-60 STANDARD VALVE)

MODEL CODE	NAMEPLATE
DG4V-3S-***-**-M-U-**-60	694302
DG4V-3S-***-**-M-F/FP A3/FPA5-**-60	694386
DG4V-3S-***-**-M-FPB-**-60	694363
DG4V-3S-***-**-M-FPBL-**-60	694362

BLANK NAMEPLATES (DG4V-3-60 HIGH PERFORMANCE VALVE)

MODEL CODE	NAMEPLATE
DG4V-3-***-**-M-(S*)-U-*7-60	694303
DG4V-3-***-**-M-(S*)-U-*2/*6-60	694451
DG4V-3-***-**-M-(S*)-F/FP A3/FPA5-*7-60	694387
DG4V-3-***-**-M-FPB-**-60	865929
DG4V-3-***-**-M-FPBL-**-60	865930

NOTE

Use blank nameplates when converting to other valve configurations. Model number, assembly number, coil designator, tank pressure, and graphic symbol must be imprinted by person performing conversion.

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

CAUTION

There is no coil/coretube/part interchangeability between the -60 design and the previous design valves.

- Seal kits
- Seal kit 858996 for (F type coil)
- Seal kit 858995 for (U type coil)
- Seal kit 859049 for (MS spool position monitor switch)

Bolt spacer kit 893225 (spacers required when using -40 design bolts to mount a -60 design valve)

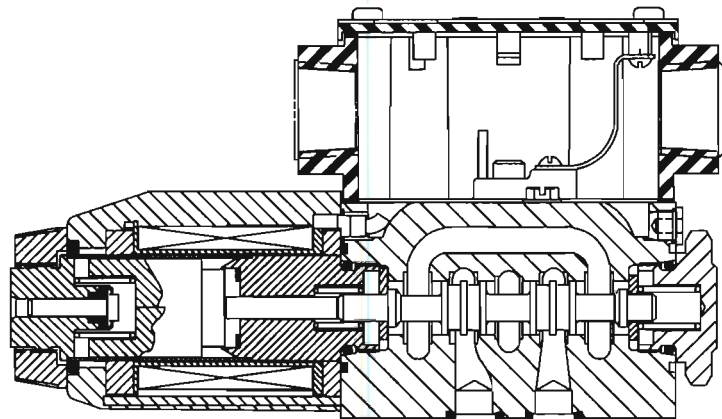
NOTE

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO 4406 cleanliness code 20/16 for up to 200 bar (3000 psi) and 18/14 for above 200 bar (3000 psi) or cleaner.

Spool accessory kits

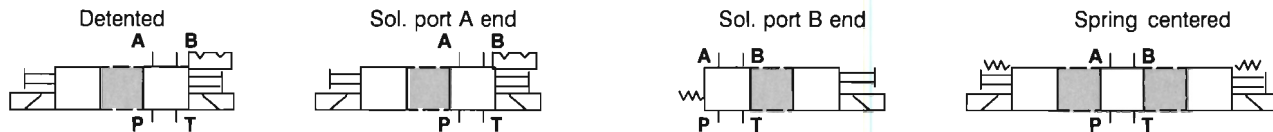
These kits contain the correct centering washers, centering springs, and seal kit to service or convert all valve build types. Some extra parts may exist after service or conversion (seals, spring, etc). Spool not included in kit and must be ordered separately.

DG4V-3S-AC/DC	893240
all spools, all builds, except detent builds	
DG4V-3S-AC	893242
all spools, detent builds only	
DG4V-3S-DC	893243
all spools, detent builds only	
DG4V-3-AC	893238
all spools, all builds, except 8B/8C, or detent builds	
DG4V-3-AC	893239
8B/8C builds only	
DG4V-3-AC/DC	893242
all spools, detent builds only	
DG4V-3-DC	893239
all spools, all builds, except detent	
DG4V-3L-DC	893239
all spools, low power only	
DG4V-3L-AC	893241
all spools, all builds, low power only, except 8B/8C	
DG4V-3L-AC	893239
low power, 8B/8C only	



Construction of a typical single solenoid model

Flow path during spool shift.



SPOOL/SPRING CODE	SPOOL #	SPOOL	SPOOL FUNCTIONAL GRAPHIC SYMBOLS		
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♣ OA(L)	617498	OA		OAL		
OB(L)/OC	617121	OB		OBL		OC
♣ 2A(L)	617120	2A		2AL		
2B(L)/2C	617118	2B		2BL		2C
♣ 2N	617126	2N				
6B(L)/6C	617119	6B		6BL		6C
7B(L)/7C	617125	7B		7BL		7C
8B(L)/8C	458950	8B		8BL		8C
♣ 22A(L)	617122	22A		22AL		
22B(L)/22C	617455	22B		22BL		22C
24A(L)	617456	24A		24AL		
33B(L)/33C	617123	33B		33BL		33C
34B(L)/34C	617128	34B		34BL		34C
♣ 52BL/52C	617131	52BL		52BL		52C
♣ 56BL/56C	617132	56BL		56BL		56C
66B(L)/66C	698745	66B		66BL		66C
♣ 521B	617131	521B				
♣ 561B	617132	561B				

SPOOL ASSEMBLY NOTES

Spool orientation unimportant except where indicated.

♣ These spools to be installed as shown in above table with left hand end towards "A" port (reverse 180° for all "AL" builds).

COILS (DG4V-3S-60 STANDARD VALVE)

CODE	VOLTS AC		FLYING LEAD COIL	DIN COIL
	50 HZ	60 HZ		
NN	24		02-111630	02-111255
N	24	24	02-111631	02-111541
K	48	48	02-111633	02-111542
A	110		02-101730	02-101725
EK		115	02-111635	02-111258
B	110	120	02-101731	02-101726
DN		220	02-111638	02-111545
D	220	240	02-101733	02-101728
EM		440	02-111643	02-111262

COILS (DG4V-3-60 HIGH PERFORMANCE VALVE)

CODE	VOLTS AC		FLYING LEAD COIL	DIN COIL
	50 HZ	60 HZ		
NN	24		865853	865835
N	24	24		
K	48	48		
A	110		508166	507825
EK		115	866458	866456
B	110	120	508169	507833
BL	110	120	698563	698562
DN		220		02-124586
D	220	240	508170	507834
EM		440	865836	865856

COILS (DG4V-3(S)-60 STANDARD/HIGH PERFORMANCE VALVE)

* Available For High Performance Valve Only

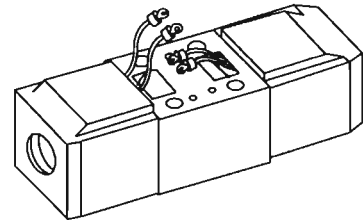
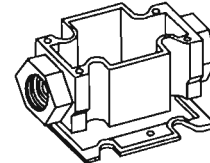
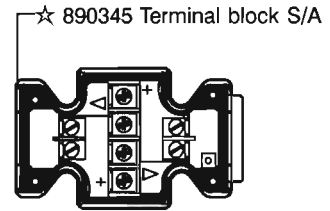
CODE	VOLTS DC	FLYING LEAD COIL		DIN COIL
G	12	508172		507847
GL*	12	508175		507855
H	24	508173		507848
HL*	24	508174		507852
DK	32	865863		865881
OJ	48	865864		865882
DM	80	865865		865883
DJ	98	865639		865637
P	110	865866		865884
DP	125	865867		865885
Z	180	865868		865886
EJ	196	865640		865638
S	220	865869		865887

CAUTION

Electrical power must be disconnected before removing/replacing terminal block, receptacle plug, indicator lights or limit switch.

DG4V-3(S)-FTJ/FTW-60

Terminal block.

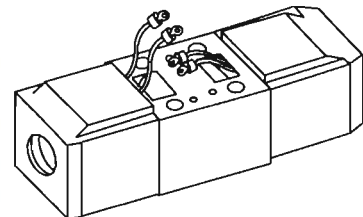
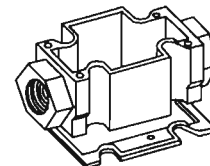
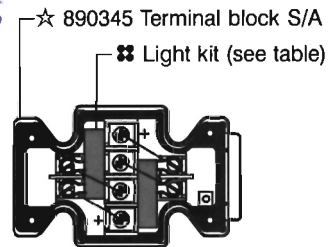


NOTE

Refer to valve model drawing for balance of part numbers.

DG4V-3(S)-FTJL/FTWL-60

Terminal block with lights.

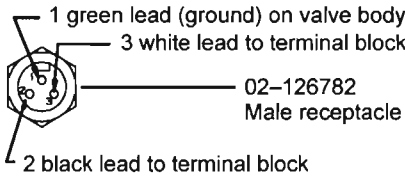
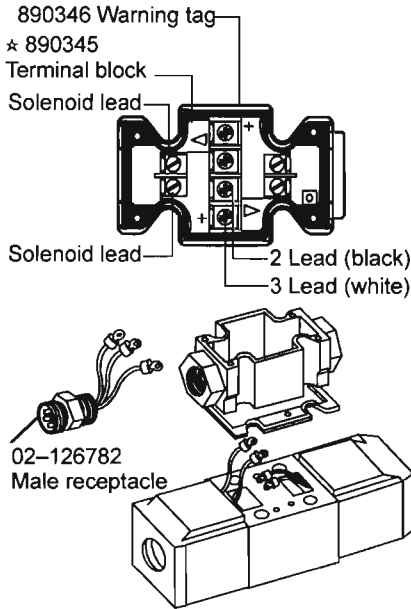


NOTE

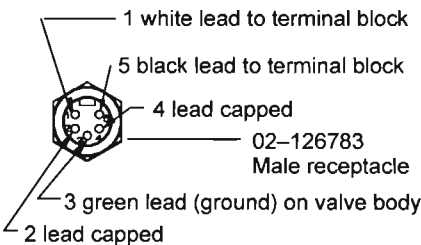
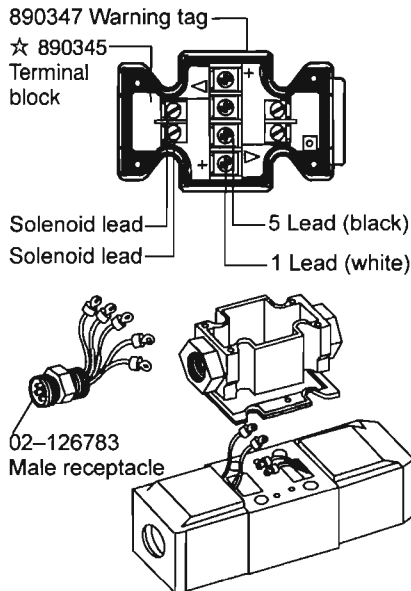
Refer to valve model drawing for balance of part numbers.

x 01017046

DG4V-3(S)-A/B-FPA3W-60
Terminal block with male receptacle



DG4V-3(S)-A/B-FPA5W-60
Terminal block with male receptacle



Accessory kits

□ Terminal box accessory kit 893236 (contains all parts for mounting box)

☆ Terminal strip kit 890345 (includes all attaching hardware).

◇ Limit switch kit 892951 (contains all minor parts for servicing limit switch).

NOTE
Light kits cannot be installed without a terminal strip.

⚡ Light kits (terminal strip not included)

VOLTAGE	KIT #
12VDC	893231
24 VDC	893232
98 VDC	893233
120 VAC	893234
240 VAC	893235

For use on valves with terminal strip installed.

⚡ Light kits (terminal strip included)

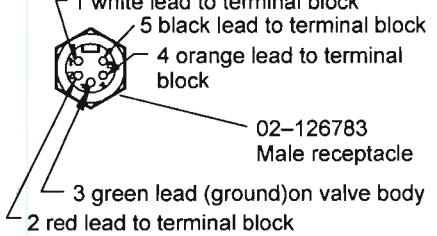
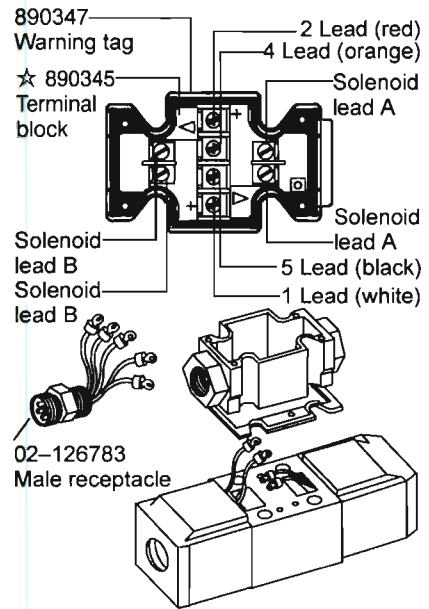
VOLTAGE	KIT #
12VDC	893226
24 VDC	893227
98 VDC	893228
120 VAC	893229
240 VAC	893230

For use on valves without terminal strip installed.

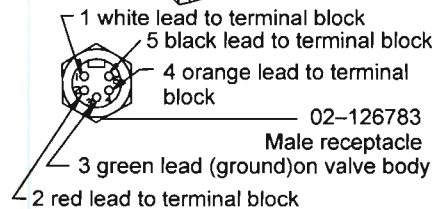
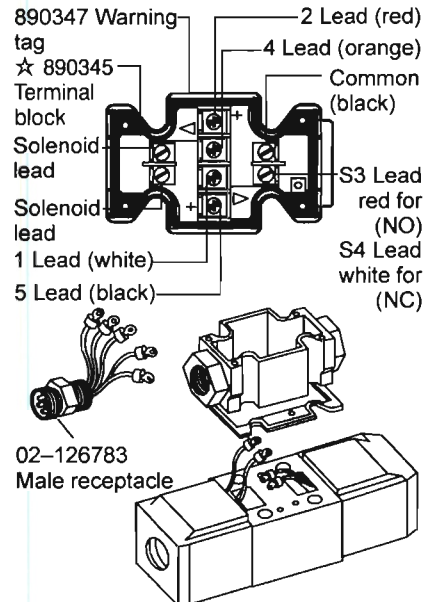
NOTE
Refer to valve model drawing for balance of part numbers.

CAUTION
Electrical power must be disconnected before removing/replacing terminal block, receptacle plug, indicator lights or limit switch.

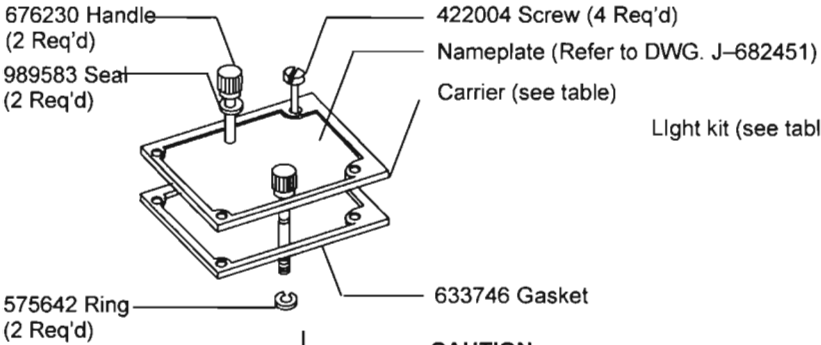
DG4V-3(S)-C/N-FPA5W-60
Terminal block with male receptacle



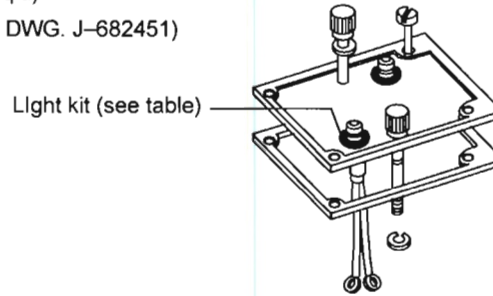
DG4V-3(S)-A/B-S3/S4-FPA5W-60
Terminal block, male recept. & switch



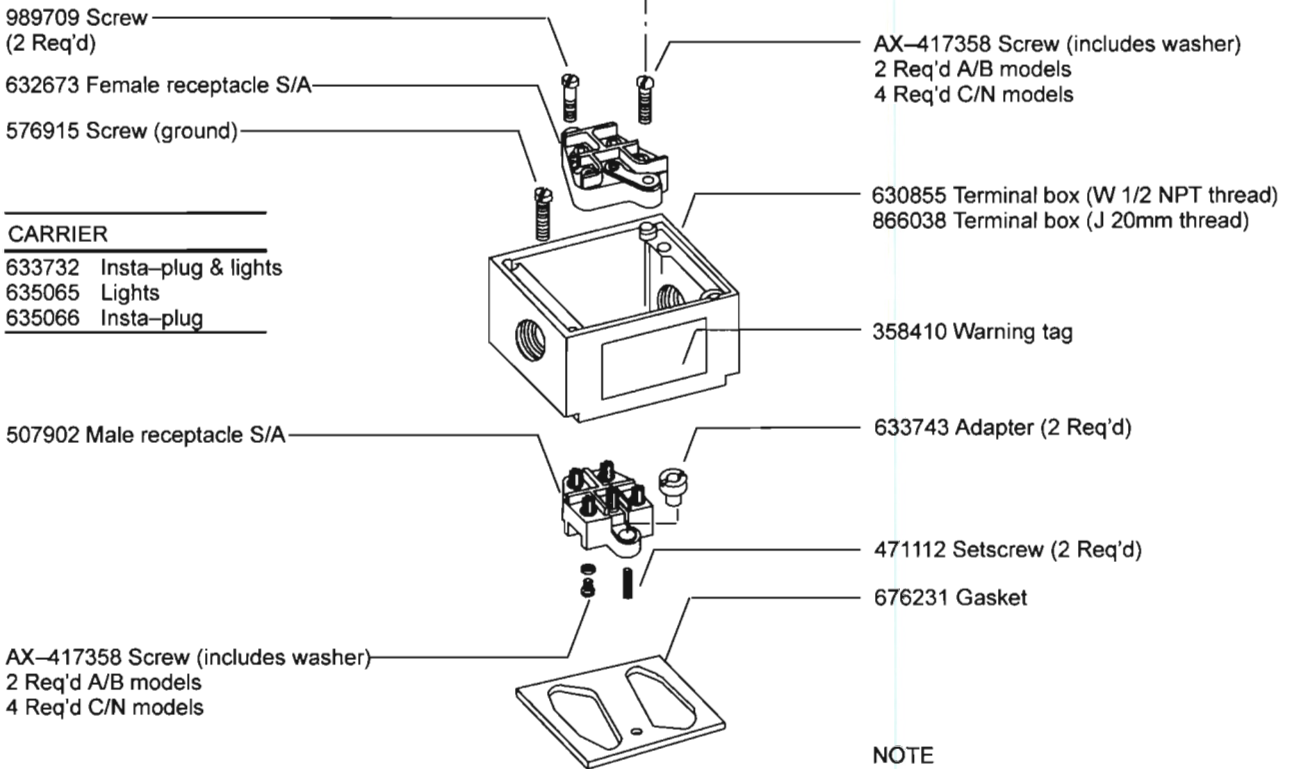
DG4V-3(S)-*-FPB-60
Instaplug male/female receptacle



DG4V-3(S)-*-FPBL-60
Instaplug male/female receptacle with lights

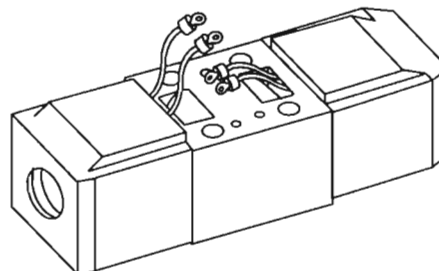


CAUTION
Electrical power must be disconnected before removing/replacing terminal block, receptacle plug, indicator lights or limit switch.



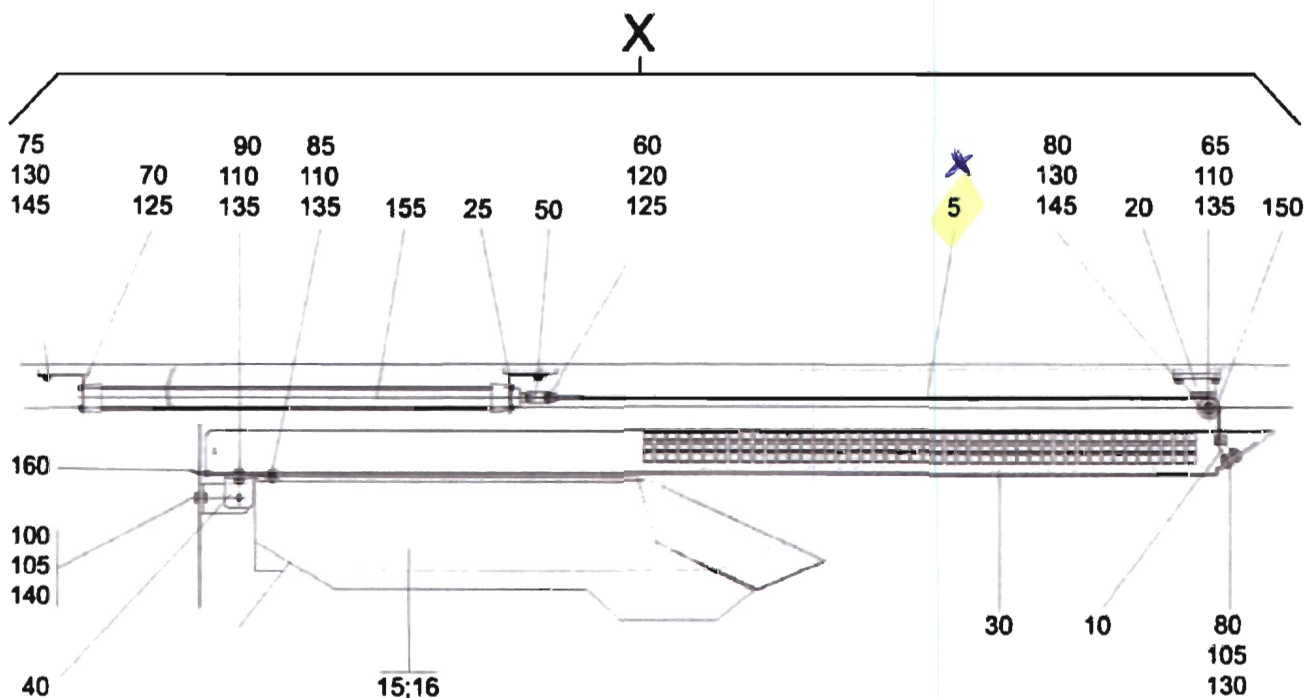
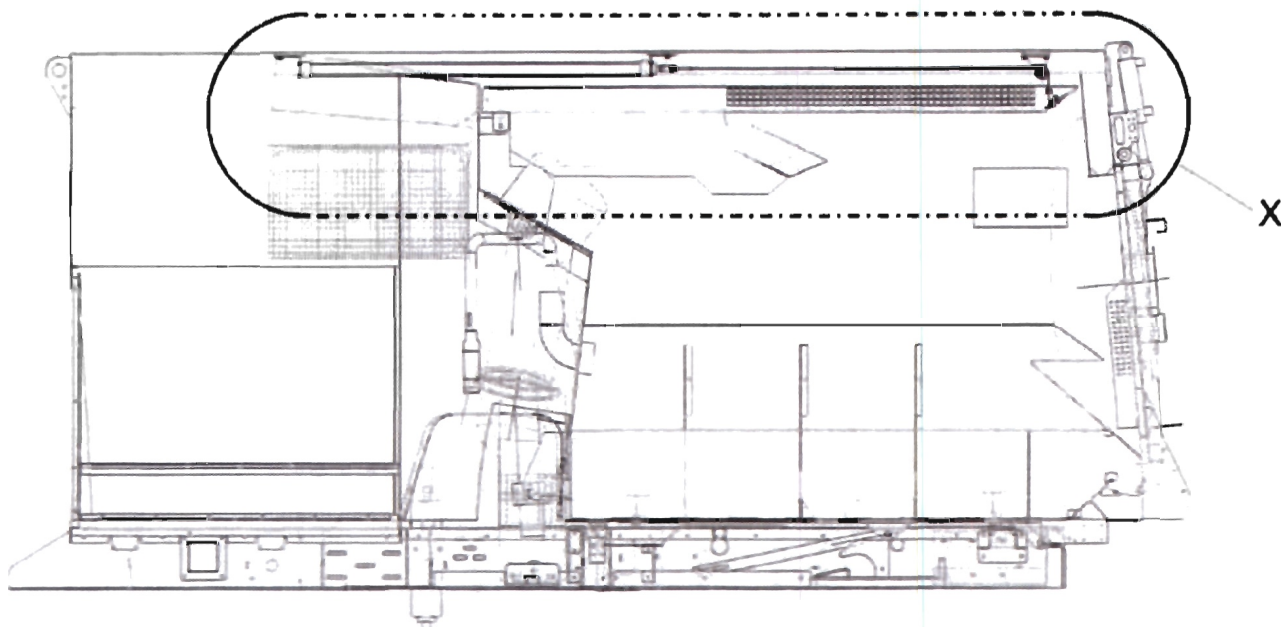
CARRIER	
633732	Insta-plug & lights
635065	Lights
635066	Insta-plug

VOLTAGE RANGE	LIGHT KIT
12V AC/DC	926499
24V AC/DC	926431
115V AC/DC	926432
230V AC/DC	926458



NOTE
Insta-plug part numbers and assembly/disassembly sequence are the same for single and double solenoid valves.

(PB) Insta-plug kit 893237
This kit is required to add the "PB" option to both standard and high performance valves. Kit contains all parts to convert a standard terminal box equipped valve to the Insta-plug (PB) version.



maßgebend ist die deutsche Übersetzung
the German translation prevails
la traduction allemande est décisive
la traduzione tedesca prevale

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12/2001 ⇨

POSITION ITEM POSTE POSIZIONE	SACR-NR. ARTICLE NO. NO. D'ARTICLE N° ARTICOLO	BENENNUNG >BEMERKUNG< DENOMINAZIONE >NOTA<	DESIGNATION >REMARK< DÉSIGNATION >NOTE<	MENGE QUANTITY QUANTITE QUANTITÀ
5	3563-0067	SEILZUG CAVO	BOWDEN CABLE TRANSMISSION BOWDEN	1.000 X
10	4103-0106	BOCK SOSTEGNO	STAND TRETEAU	1.000 X
15	4201-0277	PRALLBLECH, RECHTS LAMIERINO, DESTRA	IMPACT PLATE, RIGHT CHICANE, DROITE	1.000 X
16	4201-0276	PRALLBLECH, LINKS LAMIERINO, SINISTRA	IMPACT PLATE, LEFT CHICANE, GAUCHE	1.000 X
20	4441-0128	SEILROLLENBOCK RULLO	ROPE PULLEY STAND TRETEAU DE POULIE	1.000 X
25	5514-0948	WINKEL GOMITO	ANGLE ANGLE	2.000 X
30	5526-1115	STIEBBLECH GRIGLIA	MOULD FILTER TAMIS FORME	1.000 X
40	5616-1238	BLECH LAMIERINO	SHEET METAL TOLE	1.000 X
50	5626-0728	U-PROFIL PROFILATO	U-PROFILE PROFILE EN U	1.000 X
60	6105-0775	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON BOLT BOULON A SIX PANS	1.000 X
65	6105-1455	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON BOLT BOULON A SIX PANS	1.000 X
70	6107-0735	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON SCREW VIS A SIX PANS	8.000 X
75	6107-1165	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON SCREW VIS A SIX PANS	4.000 X
80	6107-1205	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON SCREW VIS A SIX PANS	8.000 X
85	6107-1405	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON SCREW VIS A SIX PANS	8.000 X
90	6107-1425	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON SCREW VIS A SIX PANS	7.000 X
100	6107-1725	SECHSKANTSCHRAUBE VITE TESTA ESAGONALE	HEXAGON SCREW VIS A SIX PANS	2.000 X
105	6217-1273	SECHSKANTMUTTER, SELBSTSICHERND DADO ESAGONALE	SELF-LOCKING NUT CONTRE-ECROU	2.000 X
110	6217-1283	SECHSKANTMUTTER, SELBSTSICHERND DADO ESAGONALE	SELF-LOCKING NUT CONTRE-ECROU	16.000 X
115	6217-1293	SECHSKANTMUTTER, SELBSTSICHERND DADO ESAGONALE, AUTOBLOCCANTE	SELF-LOCKING NUT CONTRE-ECROU	12.000 X
120	6217-1313	SECHSKANTMUTTER, SELBSTSICHERND DADO ESAGONALE	SELF-LOCKING NUT CONTRE-ECROU	1.000 X
125	6261-0114	SCHEIBE ROSETTA	WASHER RONDELLE	10.000 X
130	6261-0134	SCHEIBE ROSETTA	WASHER RONDELLE	12.000 X
135	6261-0144	SCHEIBE ROSETTA	WASHER RONDELLE	30.000 X
140	6261-0154	SCHEIBE ROSETTA	WASHER RONDELLE	4.000 X
145	6271-0113	FEDERRING RONDELLA ELASTICA	SPRING WASHER ANNEAU-RESSORT	8.000 X
146	6414-0044	DICHTRING RONDELLA	PACKING RING BAGUE D'ETANCHEITE	2.000 X
147	6625-0007	SCHWENKVERSCHRAUBUNG RACCORDO ORIENTABILE	ANGLE SWIVEL SCREW-JOINT COUDE ARTICULE	2.000 X
150	6703-0841	SEILROLLE RULLO	ROPE PULLEY POULIE	1.000 X
155	5801-1162	PNEUMATIK-ZYLINDER CILINDRO PNEUMATICO	PNEUMATIC CYLINDER CYLINDRE PNEUMATIQUE	1.000 X
160	8545-0641	DICHTUNGSPROFIL GUARNIZIONI	RUBBER CHAOUTCHOU	4.500 M

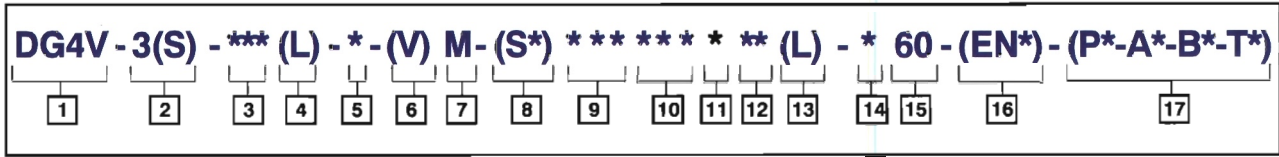
* = VERSCHLEISSTEIL • WAERING PART • PIECE D'USURE • ANCHE PARTE D'USURA

maßgebend ist die deutsche Übersetzung
the German translation prevails
la traduction allemande est décisive
la traduzione tedesca prevale

01017126

Model Code

DG4V 3S 6C M U AH S 60



1 D – Directional control valve
G – Subplate mounted
4 – Solenoid operated
V – 350 Bar (5075 psi) P, A, & B ports

2 Standard/High performance
3 – High performance 80 l/min (21 gpm) at 350 bar (5075 psi)
3S – Standard performance 40 l/min (10.5 gpm) at 350 bar (5075 psi)

3 Spool type (see table)

4 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
F – Spring offset, shift to center
N – No spring detented

5 Manual override options
Blank – Plain override solenoid end only
H – Waterproof override solenoid end only
H2 – Waterproof override both ends of single solenoid
P2 – Plain override both ends of single solenoid
Y – Lockable manual override solenoid ends only
Z – No overrides in either end

6 Solenoid energisation identity
Blank – Standard arrangement for ANSI B93 9 (energise solenoid A for flow A to P port)
V – Solenoid A at port A end and/or solenoid B at port B end, regardless of spool type.
 (All 8 spool valves are V code)

7 Flag
 Electrical options & features

8 Spool indicator switch
 Available on high performance models, DG4V–3, only.
 Omit when not required.

For DG4V–3–*A(L)–(Z)–(V)M–S*–U valves having type 2 and 22 spools with proximity type DC switch:
S1 – Switch, normally open.
S2 – Switch, normally closed.
 For DG4V–3–*A(L)–(Z)–(V)M–S*–FP A5W valves having mechanical type AC switch, wired to 5 pin receptacle:
S3 – Switch, wired normally open.
S4 – Switch, wired normally closed.
 For DG4V–3–*A(L)–(Z)–(V)M–S5–F(T)W/J valves having mechanical type AC switch:
S5 – Switch, free leads

9 Coil type
U – ISO 4400
F – Flying lead
SP1 – Single 6,3 series spade to IEC 760
SP2 – Dual 6,3 series spade to IEC 760
X1 – Flameproof solenoids
TP EEx–d–11B–T4
X2 – Hazardous location solenoids to meet UL & CSA approval
X3 – Special protection solenoids to BASEEFA standard SFA009:1972, protection class Ex–S–11–T4

10 Electrical connections (F type coil only) omit if not required
T – Wired terminal block
PA – Instaplug male receptacle only
PB – Instaplug male & female receptacle
PA3 – Three pin connector
PA5 – Five pin connector

11 Housing (F type coils only)
W – 1/2 NPT thread wiring housing
J – 20 mm thread wiring housing

12 Solenoid indicator lights (omit if not required)
 Not available on PA, U, SP1, & SP2 builds

13 Coil Identification (see table)
 (*L coils not available on DG4V–3S builds)

14 Tank pressure rating
 Standard performance DG4V–3S
5 – 100 Bar (72 psi)
 High performance DG4V–3
2 – 10 Bar (145 psi)
4 – 70 Bar (1015 psi)
6 – 160 Bar (2320 psi) AC valves
7 – 210 Bar (3045 psi) DC valves

15 Design

16 Special modifications (omit if not required)

17 Port orifice plugs (see table) omit if not required