

Directional Controls



Solenoid Controlled Pilot Operated Directional Valves

(F3)DG5S4-04-**(L)**(X)(*)(E)(T)(*)-(V)M-(S*)(**)**(L)**5-***-60/70

MAIN STAGE SPOOL TYPE	AVAILABLE VALVE TYPE	SPOOL	MAIN STAGE ID PLATE	
			"A" ONLY	B/C/N
O	A/B/C/N	399891	433851	433852
1		*431972		433851
2		399892		433853
3		*399893		433854
4		413481		433855
6		399894		433856
8		399896		433855
9		413483		433852
11		*431972		433851
31		*399893		433851
33		399897		433856

■ PLUG TORQUES (OILED)

PLUG	N.M	lb. in.
7074	8.5–9.6	75–85
113000	5.0–5.9	45–52
367427	5.0–5.9	45–52

* Spool Assembly Note

Assemble type 1 & 3 spools with narrow center land toward "A" end of valve. "A" end is defined as being closest to CYL. port "A". Type 11 & 31 spools are installed in reverse of type 1 & 3 with narrow center lands toward "B" end of valve.

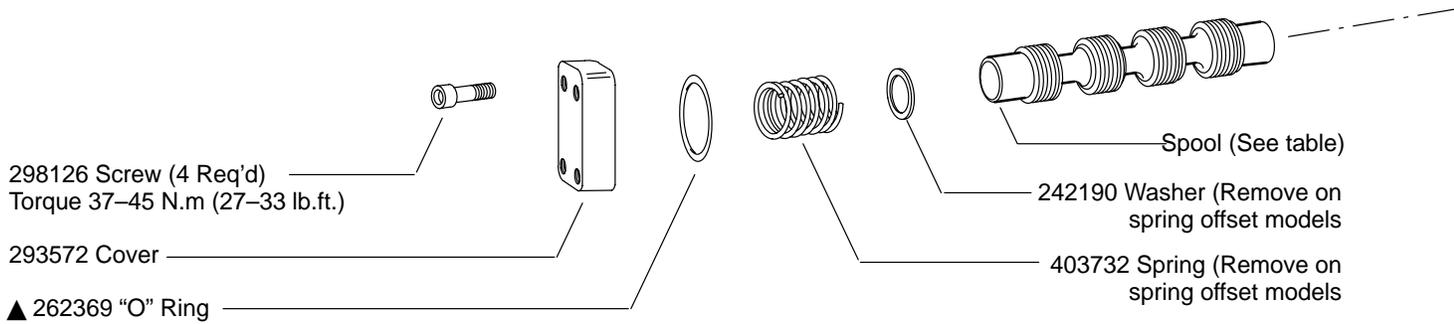
■ PLUG INSTALLATION TABLE

MODEL	"A" PLUG	"B" PLUG	"C" PLUG
DG5S4-04*	DOES NOT EXIST	367427	OUT
DG5S4-04*-E		113000	367427
DG5S4-04*-X		OUT	OUT
DG5S4-04*-X-E			
DG5S4-04*-K/R/S		367427	113000
DG5S4-04*-E-K/R/S		113000	
DG5S4-04*-X-K/R/S		OUT	
DG5S4-04*-X-E-K/R/S	113000		

★ 113000 SOLID PLUG

★ 367427 ORIFICE PLUG

Note
Parts included in service kits are not sold separately.



VALVE MODEL CODE	MAIN STAGE SPOOL TYPE	PILOT VALVE MODEL CODE
DG5S4-04*A	O, 1, 2, 3, 6, 9, 11, 31, 33	DG4V-3(S)-2A-60
	4 & 8	DG4V-3(S)-28A-60
DG5S4-04*B	O, 1, 2, 3, 6, 9, 11, 31, 33	DG4V-3(S)-6B-60
	4 & 8	DG4V-3(S)-68B-60
DG5S4-04*C	O, 1, 2, 3, 6, 9, 11, 31, 33, 52, 521	DG4V-3(S)-6C-60
	4 & 8	DG4V-3(S)-68C-60
DG5S4-04*N	O, 1, 2, 3, 6, 9, 11, 31, 33	DG4V-3(S)-6N-60
	4 & 8	DG4V-3(S)-68N-60

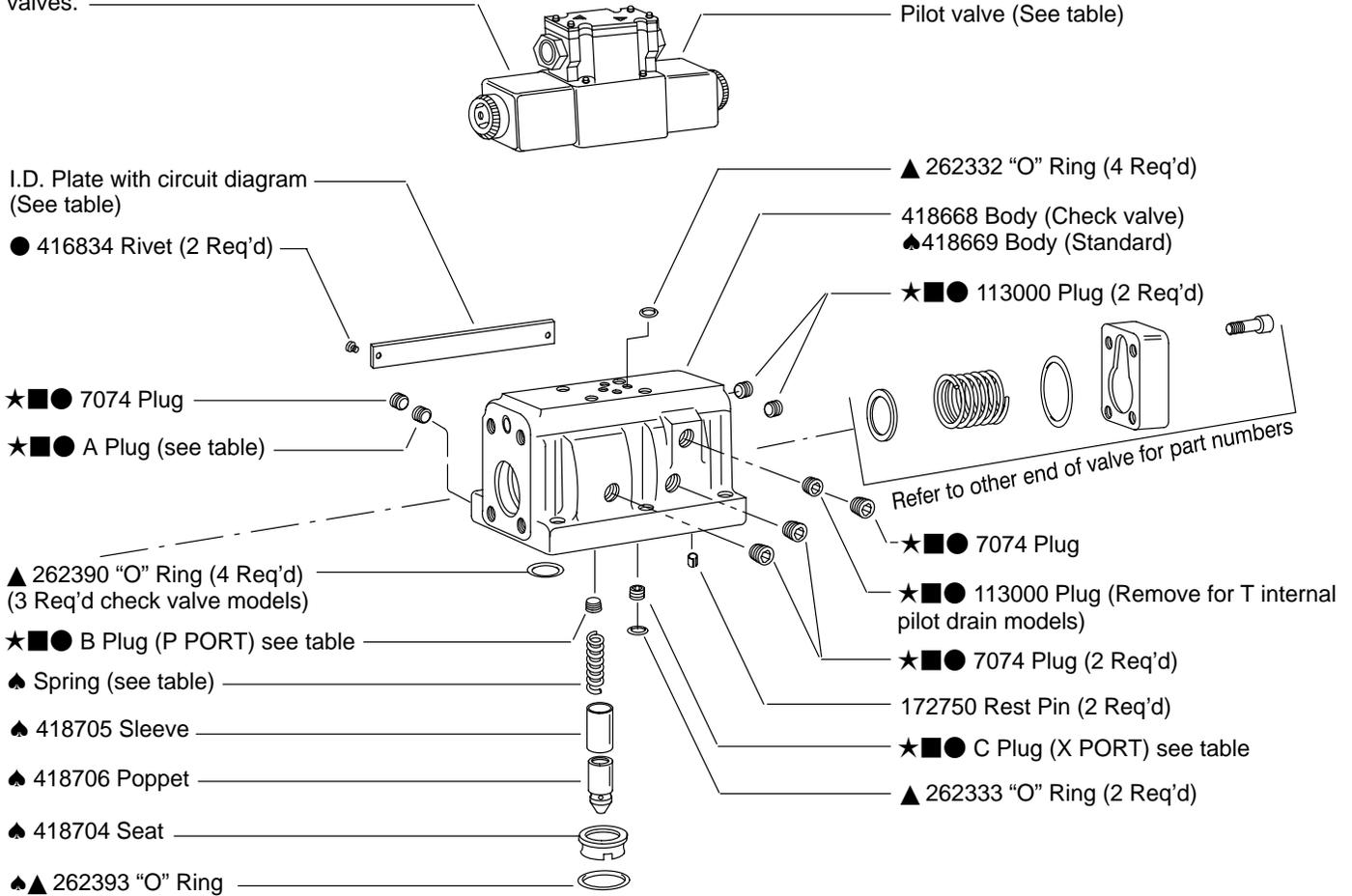
See pilot valve service drawing for parts breakdown

- ▲ Included In F3 Seal Kit 696897
- ★ Included In Plug Kit 926545
- ♣ Used On Check Valve Models Only
- Plug Torques (See Table)
- Available Only In Kit Of 25 Each

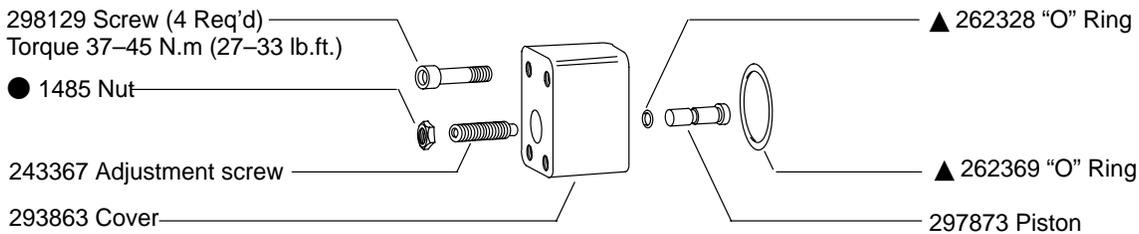
MODEL	▲ SPRING
DG5S4-04-K	426859
DG5S4-04-R	418675
DG5S4-04-S	432350

PILOT STAGE BOLT KIT (INCLUDES 4 ATTACHING BOLTS)	
MODEL	BOLT KIT
W/O Pilot choke	696899
W/ Pilot choke	696900
Torque 4.5–5.7 N. m. (39.8–50.4 lb. in.)	
See pilot choke service drawing for parts breakdown	

This solenoid removed on right hand A, & B, models. Refer to service drawings for more detailed information on left hand valves.



Parts shown included in 941029 stroke adjustment kit. Order two kits if stroke adjustment is required for both ends.



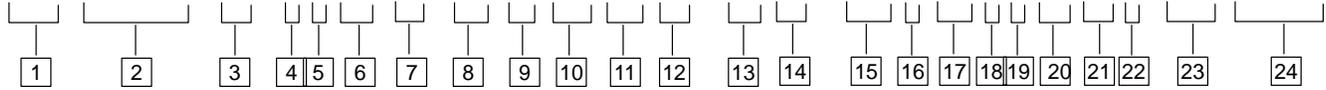
Stroke adjustment parts either end or both

Note

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 18/15 or better.

Model Code

(F3) DG5S4 - 04 - ** (L) (**) (X) (*) (E) (T) (*) - (V) M - (S*) * (**) ** (L) ** * - *** - 60/70



1 Seals for mineral oil & fire resistant fluids

2 Directional control valve
Manifold or subplate mounted
Solenoid controlled
Pilot operated
Rated pressure 210 bar (3000 psi)

3 Interface

04 – NFPA–D04
(ISO–4401–07)

4 Spool type (see table)

5 Spool/Spring arrangement

A – Spring offset, to CYL. A
B – Spring centered, sol. A removed
C – Spring centered
F – Spring offset, to CYL. A shift to center
N – No spring detented

6 Left hand

L – Left hand (single solenoid only)
Blank – Omit when not required

7 Manual override option

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

8 Response type

X – Fast response
Blank – Standard low shock models

9 Spool control modifications

1 – Stroke adjustment
2 – Pilot choke adjustment
3 – Pilot choke & stroke adjustment
7 – Stroke adjustment CYL. A only
8 – Stroke adjustment CYL. B only
2–7 – Dual pilot choke & stroke ADJ. A port end only
2–8 – Dual pilot choke & stroke ADJ. B port end only
Blank – Omit when not required

10 Pilot pressure

E – External pilot pressure
Omit – Internal pilot pressure

11 Pilot drain

T – Internal pilot Drain
Omit – External pilot drain

12 Pressure port check valve

K – 0.35 bar (5 psi cracking pressure)
R – 3.45 bar (50 psi cracking pressure)
S – 5.20 bar (75 psi cracking pressure)
Blank – Omit when not required

13 Solenoid energization identity

Blank – Standard arrangement for ANSI B93.9 (energise solenoid A for flow P to A port)
V – Solenoid identification determined by position of solenoid. (Solenoid A at port A end and/or solenoid B at port B end.
(All 4 & 8 spools are always V code)

14 Flag symbol heading electrical options & features

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

S1 – Options available on U only
S2 – Options available on U only
S3 – Options available on P* only
S4 – Options available on P* only
S5 – Options available on FW/FJ only

16 Coil type

U – ISO 4400
F – Flying lead
SP1 – Single 6,3 MM spade to IEC 760
SP2 – Dual 6,3 MM spade to IEC 760

17 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

18 Housing (F type coils only)

W – 1/2 NPT thread wiring housing
J – 20 mm thread wiring housing

19 Electrical options

1 – ISO with fitted plug, U type coils only
6 – ISO with fitted plug, & lights
U type coils only

20 Solenoid indicator lights (F build only) used with T terminal block models. (Omit if not required)

21 Coil identification

22 Pilot valve code (tank pressure rating)

2 – 10 bar (145 psi) DG4V3–60
5 – 100 bar (1450 psi) DG4V3S–60
6 – 160 bar (2285 psi) DG4V3–60
7 – 210 bar (3000 psi) DG4V3–60

23 Pilot valve port orifices

24 Design

60 – DG4V3S–60 pilot valve
70 – DG4V3–60 pilot valve

6 Thru **23** included in pilot valve model code