## **Vickers**®

## **Directional Controls**



# Solenoid Controlled Pilot Operated Directional Valves

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

www.khadamathydraulic.com

Tell: 021-55882749 Tell: 021-33488178 Fax: 021-33488105

www.khadamathydraulic.com

Tell: 021-55882749 Tell: 021-33488178 Fax: 021-33488105

www.khadamathydraulic.com Tell: 021-55882749

Tell: 021-33488178 Fax: 021-33488105

www.khadamathydraulic.com Tell: 021-55882749

Tell: 021-33488178 Fax: 021-33488105



| MAIN STAGE | AVAILABLE    | SPOOL   |          | GE ID PLATE |
|------------|--------------|---------|----------|-------------|
| SPOOL TYPE | VALVE TYPE   |         | "A" ONLY | B/C/N       |
| 0          |              | 399891  |          | 433852      |
| 1          |              | *431972 |          | 433851      |
| 2          |              | 399892  |          | 433853      |
| 3          |              | *399893 |          | 433854      |
| 4          | A /D /O /A ! | 413481  | 400054   | 433855      |
| 6          | A/B/C/N      | 399894  | 433851   | 433856      |
| 8          |              | 399896  |          | 433855      |
| 9          |              | 413483  |          | 433852      |
| 11         |              | *431972 |          | 433851      |
| 31         |              | *399893 |          | 433851      |
| 33         |              | 399897  |          | 433856      |

| ■ PLUG TC | RQUES (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.

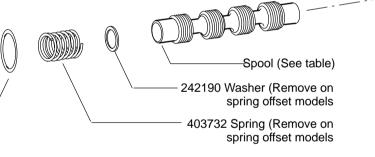
| ■ PLUG INSTALLATION TARLE |      |          |  |
|---------------------------|------|----------|--|
|                           | TADI | INICTALI |  |

| MODEL                                     | "A" PLUG | "B" PLUG | "C" PLUG |
|-------------------------------------------|----------|----------|----------|
| DG5S4-04*                                 | DOES     | 367427   | OUT      |
| DG5S4-04*-E                               | NOT      | 113000   | 367427   |
| DG5S4-04*-X                               | EXIST    | OUT      |          |
| DG5S4-04*-X-E                             | EVIOL    |          | OUT      |
| DG5S4-04*-K/R/S                           | 367427   |          |          |
| DG5S4-04*-E-K/R/S                         | 113000   | 113000   | 326427   |
| DG5S4-04*-X-K/R/S                         | OUT      |          | 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.

| 298126 Screw (4 Req'd) Torque 37–45 N.m (27–33 lb.ft.) | / |    |
|--------------------------------------------------------|---|----|
| 293572 Cover —                                         |   | _/ |
| ▲ 262369 "O" Ring —                                    |   | /  |



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

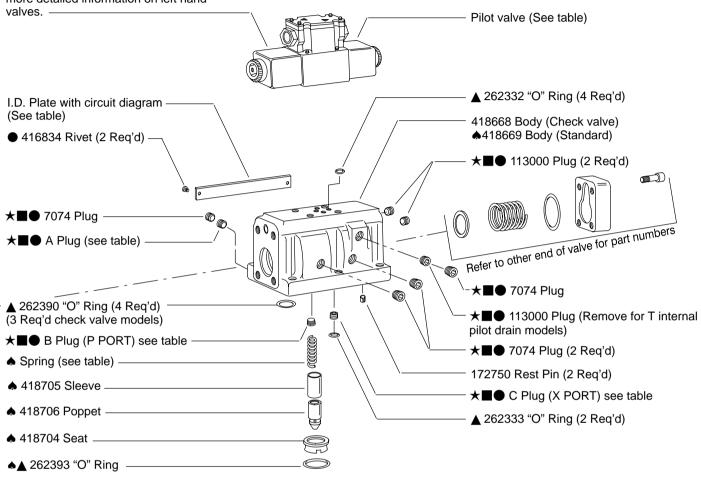
| MODEL .    | SPRING |
|------------|--------|
| DG5S4-04-K | 426859 |
| DG5S4-04-R | 418675 |
| DG5S4-04-S | 432350 |

## PILOT STAGE BOLT KIT (INCLUDES 4 ATTACHING BOLTS)

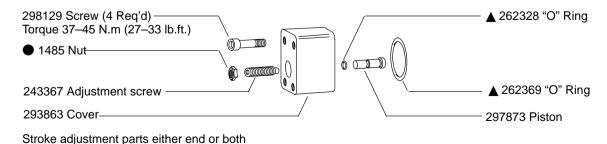
| MODEL           | BOLT KIT |
|-----------------|----------|
| W/O Pilot choke | 696899   |
| W/ Pilot choke  | 696900   |

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



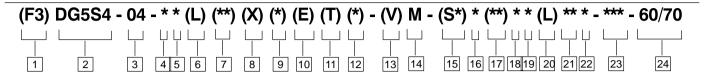
Parts shown included in 941029 stroke adjustment kit. Order two kits if stroke adjustment is required for both ends.



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.

Note

### **Model Code**



- 1 Seals for mineral oil & fire resistant fluids
- 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 ÁDJ. 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)

\$3 - Options available on P\* only

\$4 - 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

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

#### 21 Coil indentification

## 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