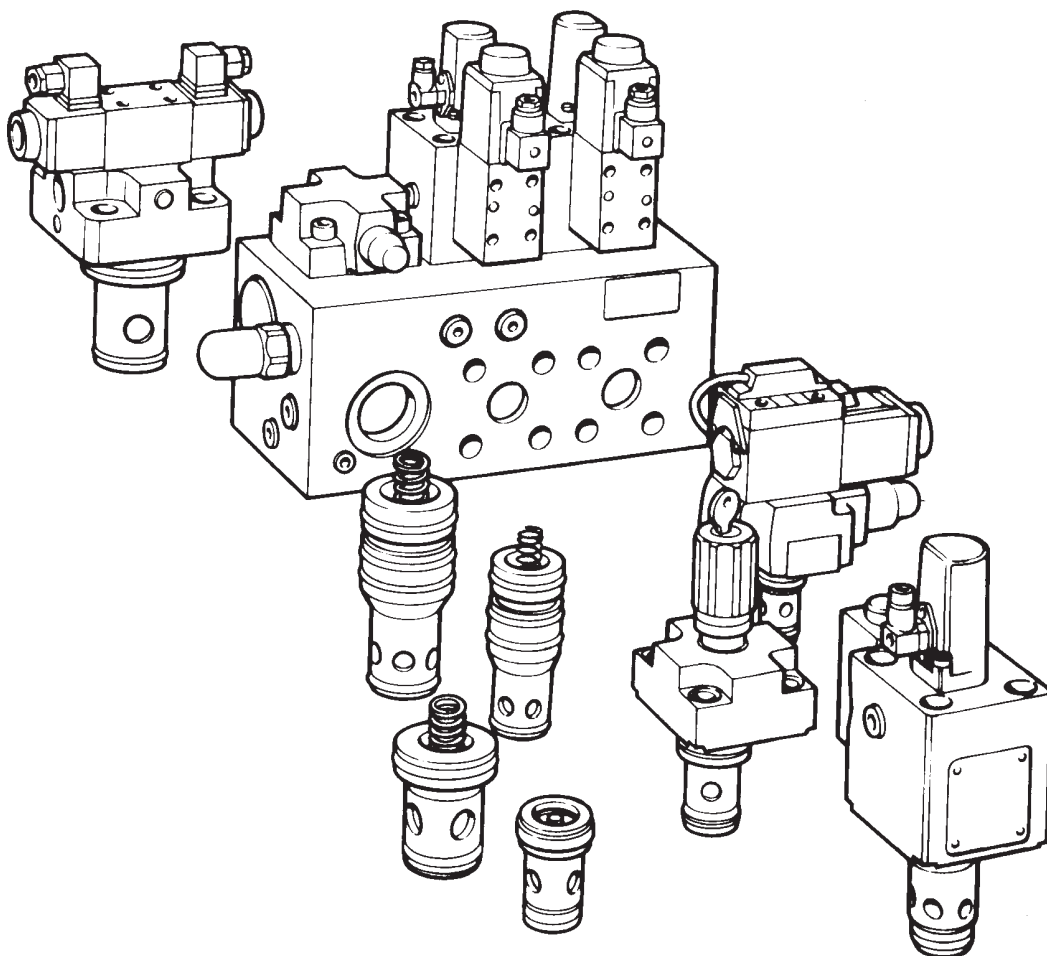


Vickers®

Cartridge Valves



Slip-in Cartridge Valves to ISO 7368 (DIN 24342)



Model Codes - Pressure Relief and Venting Functions

CVCS Covers

Vickers type "CVCS" cartridge covers featured in this catalog conform to installation requirements of ISO 7368

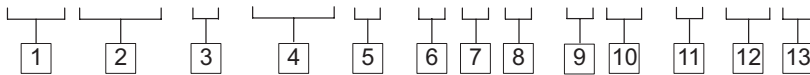
and DIN 24342. This includes *function types SC, SC1 and SC3*.

All features must be specified when ordering; those in brackets () are optional or apply only to specific models.

Metric Models

Metric bolt tappings and orifice threads; BSPF plugs. Mounting bolts supplied.

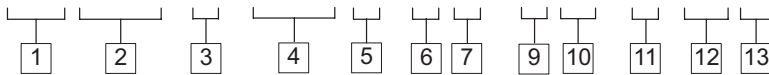
(F3-) CVCS - ** - (S)C(*) (3) - B 2 9 - * * - 1* (-*** **)**



Non-Metric Models

UNC bolt tappings; UNF orifice threads; SAE plugs; mounting bolts not supplied.

(F3-) CVCS - ** - (S)C(*) (1) - S 2 - * * - 1* (-*** **)**



1 Seal Material

F3 - Special seals. See "Fluids and Seals" on page 16.
Omit for standard seals.

2 Model

CVCS - Cartridge valve cover to ISO 7368

3 Nominal size to ISO 7368 (DIN 24342)

16 - 06 (NG16)
25 - 08 (NG25)
32 - 09 (NG32)
40 - 10 (NG40)

4 Function

C - Pressure relief (ISO 7368, B*-****-2-A**)
C* - Pressure relief (ISO 7368, B*-****-2-A**) with mounting face for size 03 pilot valve
SC - Pressure relief (ISO 7368, B*-****-2-B**)
SC* - Pressure relief (ISO 7368, B*-****-2-B**) with mounting face for size 03 pilot valve

* Code for optional threads, see 5.

5 Size 03 pilot valve mounting bolt tappings

1 - Inch threads
3 - Metric threads
Omit for types C and SC

6 Plugs and orifice threads

B -G (BSPF) threads for closure plugs; metric threads for orifices
S -SAE threads for closure plugs; UNF threads for orifices

7 Seals

2 - Inch O-ring seals to ISO 3601

8 Mounting bolts

9 - Metric mounting bolts supplied

9 Adjuster mechanism

K - Micrometer adjuster with keylock
M - Micrometer adjuster without lock
W - Wrench adjustment with hex locknut

10 Adjustable pressure range

125 - 3-125 bar (44-1800 psi)
250 - 5-250 bar (73-3600 psi)
350 - 8-350 bar (116-5000 psi)
For proportional control ranges, see page 54.

11 Design number, 1* series

Subject to change. Installation dimensions unchanged for design numbers 10 to 19 inclusive.

See page 124 for sizes of factory-fitted standard orifices. Other orifice sizes and locations can be fitted by special arrangement with your Vickers representative. Non-standard orifice requirements should be defined as follows:

12 Pilot control orifice location

Specify port location for non-standard orifice, e.g. "AP", followed by orifice size code, see 13 Repeat as necessary for further non-standard requirements.

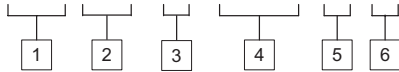
13 Orifice size

Specify non-standard orifice size code, see tables on page 125.

CVI Inserts

All features must be specified when ordering; those in brackets () are optional.

(F3-) CVI - ** - *10(F) - * - 4*



1 Seal Material

F3 - Special seals. See “Fluids and Seals” on page 16.
Omit for standard seals.

2 Model

CVI - Cartridge valve insert

3 Nominal size to ISO 7368 (DIN 24342)

16 - 06 (NG16)
25 - 08 (NG25)
32 - 09 (NG32)
40 - 10 (NG40)

4 Function

C10F - 1:1 ratio with fixed orifice
D10 - 1:1 ratio

5 Cracking pressure, bar (psi)

For correct relief function specify spring code according to model size.

Size	Spring code	Cracking pressure bar (psi)
16	M	1,55 (22.5)
25	H	3,1 (45)
32	H	3,1 (45)
40	C	2,35 (34)

6 Design number, 4* series

Subject to change. Installation dimensions unchanged for design numbers 40 to 49 inclusive.

Note: A nameplate is supplied with each insert for fixing to the cover to identify the insert in use.

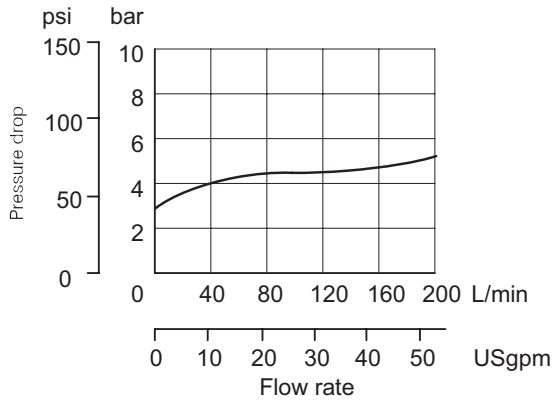
Performance Data - Pressure Relief and Venting Functions

Unless otherwise stated, performances are based on petroleum oil at 36 cSt (168 SUS) and at 50°C (122°F). For pressure drops at other viscosities, see page 127.

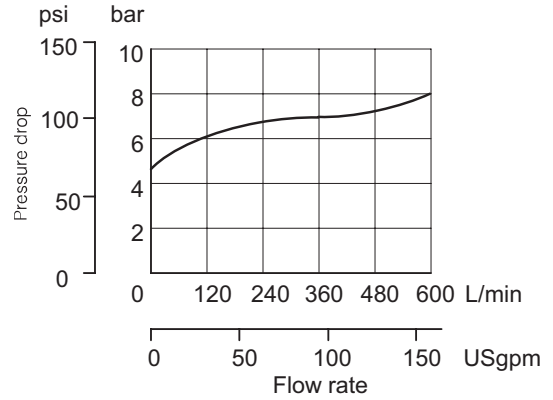
Thermal stability of proportional cartridge systems primarily depends on the proportional pilot valve.

Pressure Drop/Flow (Flow from Port A to B)

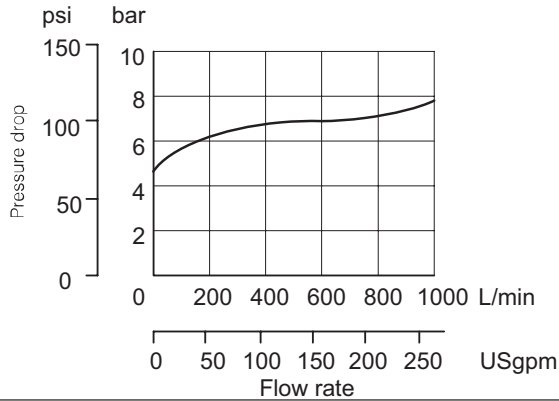
Cover CVCS-16-C-*2(9)-*-*-1*
Inserts CVI-16-D10-M-4* and CVI-16-C10F-M-4*



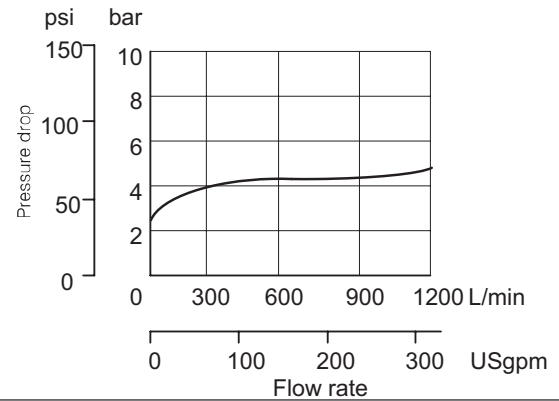
Cover CVCS-25-C-*2(9)-*-*-1*
Inserts CVI-25-D10-H-4* and CVI-25-C10F-H-4*



Cover CVCS-32-C-*2(9)-*-*-1*
Inserts CVI-32-D10-H-4* and CVI-32-C10F-H-4*

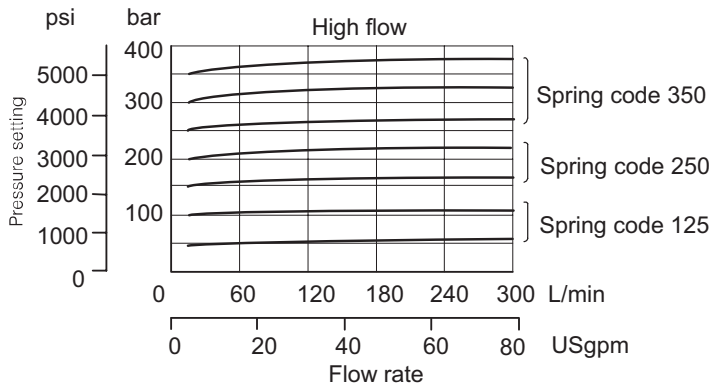
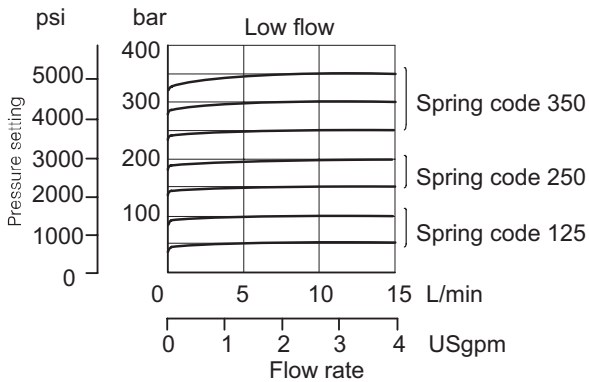


Cover CVCS-40-C-*2(9)-*-*-1*
Inserts CVI-40-D10-C-4* and CVI-40-C10F-C-4*



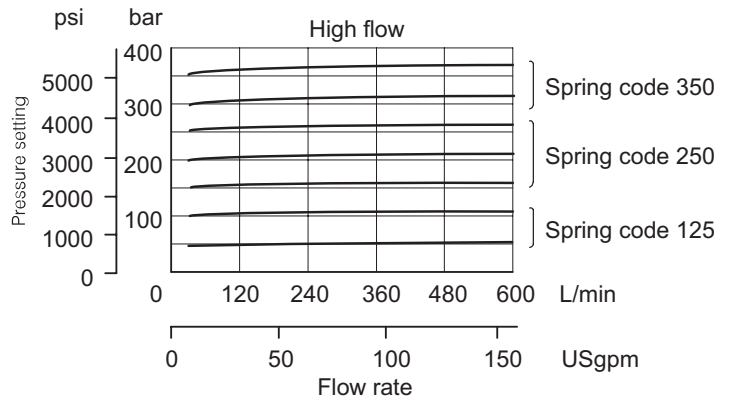
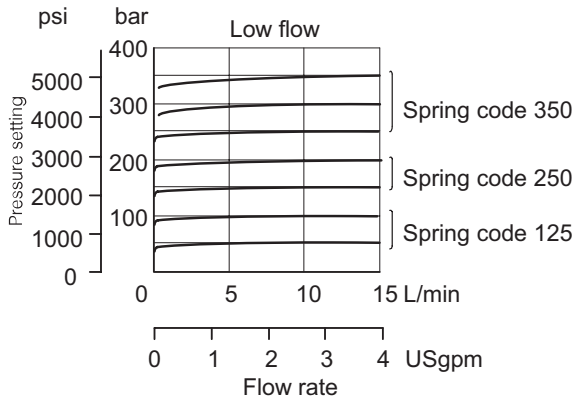
Pressure Override

Cover CVCS-16-C-*2(9)-*-*-1*
Inserts CVI-16-D10-M-4* and CVI-16-C10F-M-4*

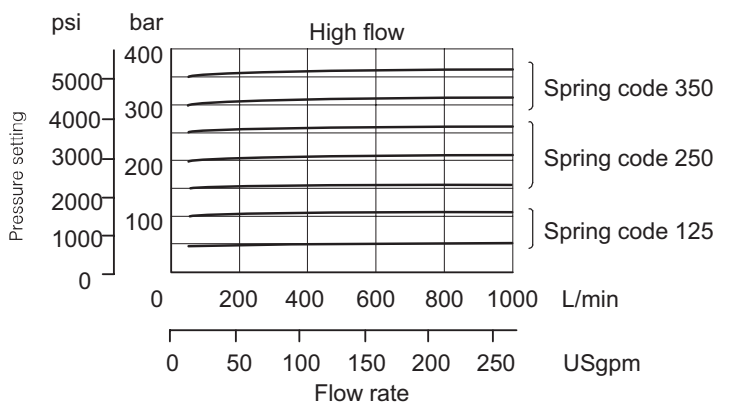
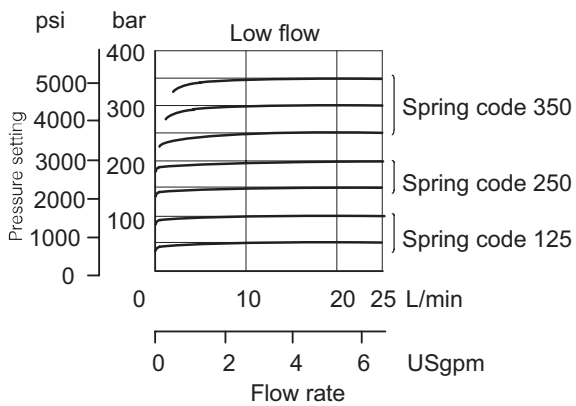


Pressure Override (continued)

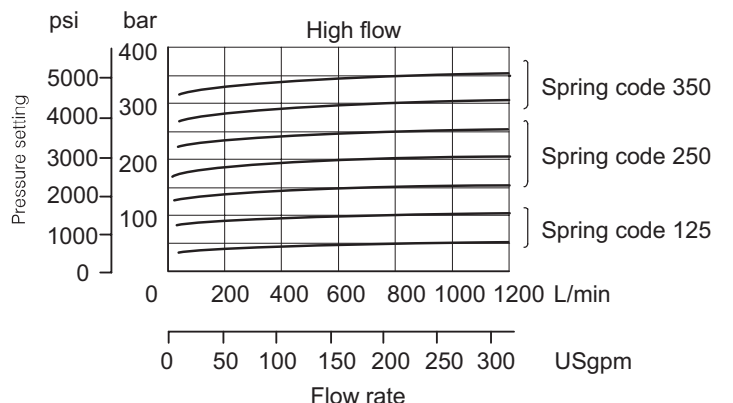
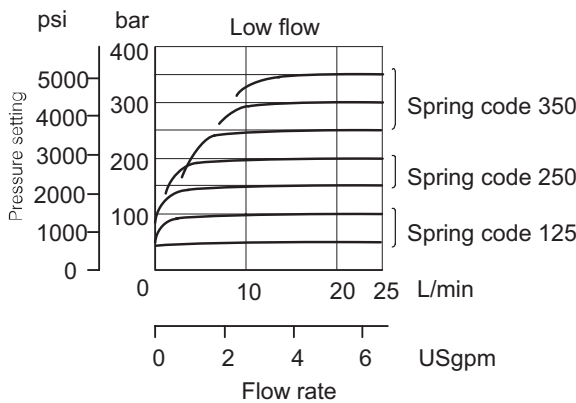
Cover CVCS-25-C-*2(9)-*-***-1*
 Inserts CVI-25-D10-H-4* and CVI-25-C10F-H-4*



Cover CVCS-32-C-*2(9)-*-***-1*
 Inserts CVI-32-D10-H-4* and CVI-32-C10F-H-4*

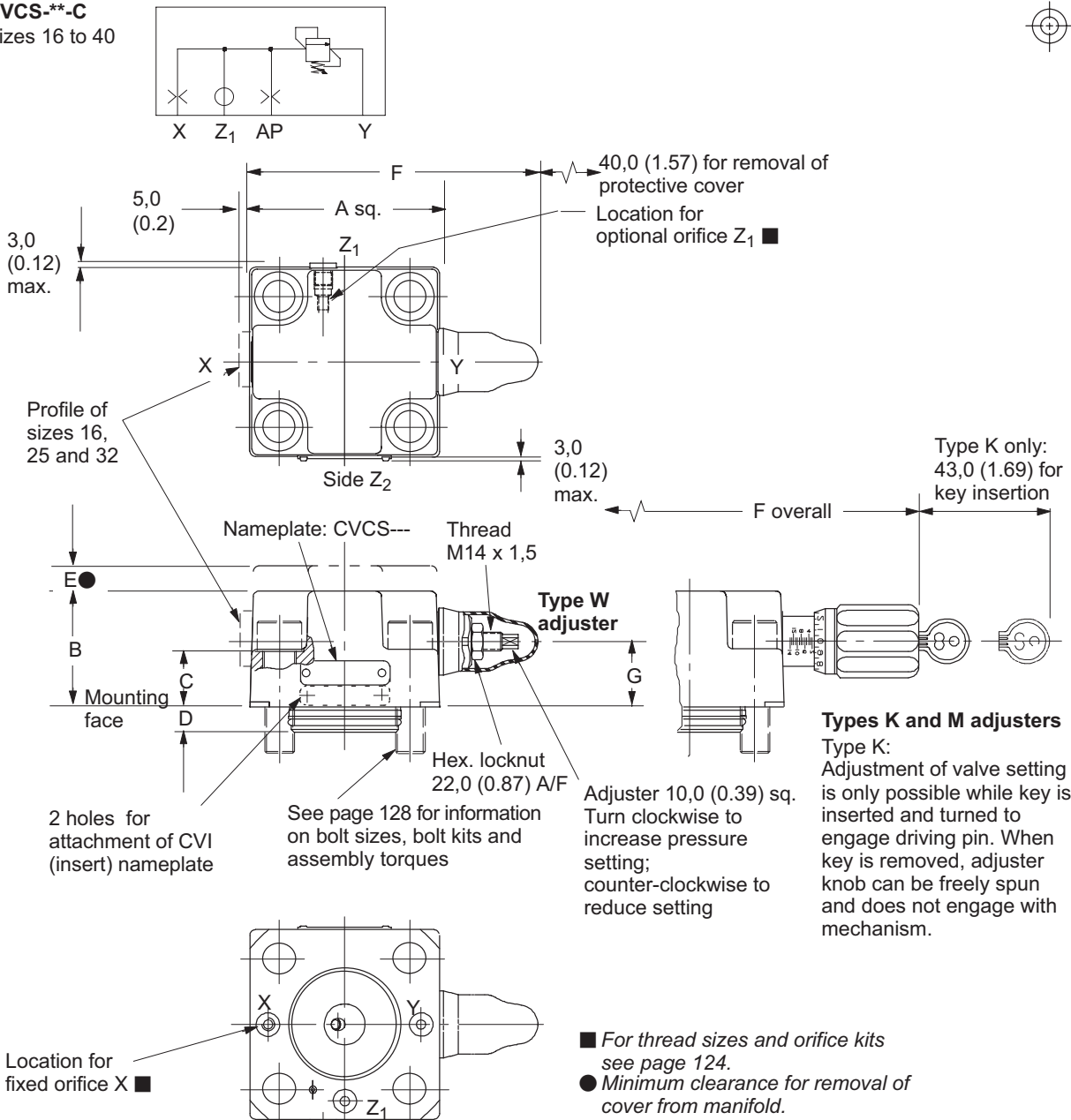
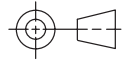


Cover CVCS-40-C-*2(9)-*-***-1*
 Inserts CVI-40-D10-C-4* and CVI-40-C10F-C-4*



Pressure Relief and Venting Functions

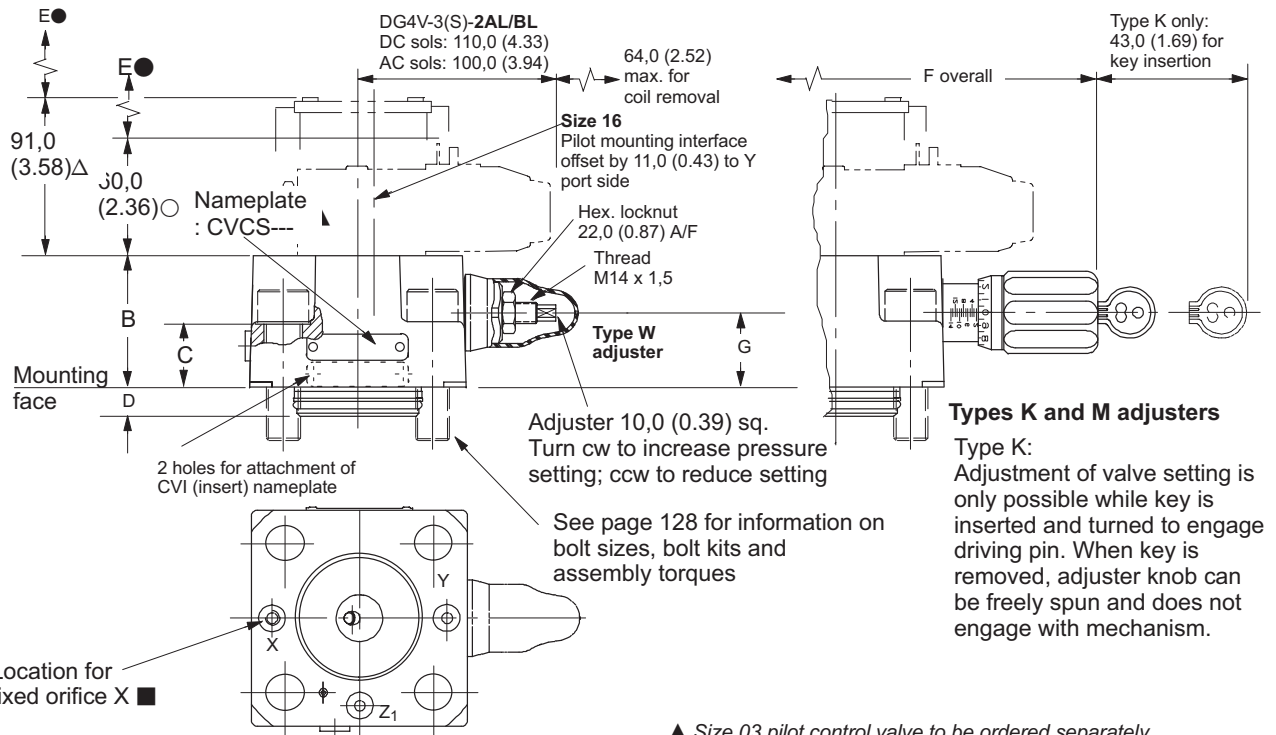
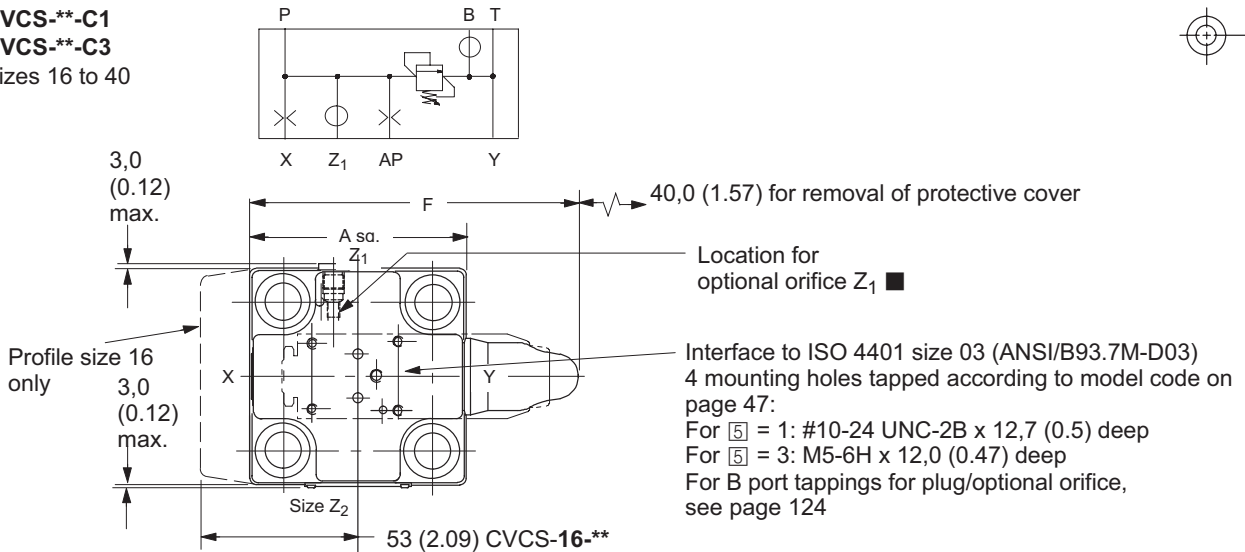
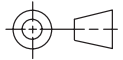
CVCS--C
 Sizes 16 to 40



Size	A	B	C	D max. Tolerance -0,1 (0.004)	E	F max. for adjuster type: K & M W	G
16	65,0 (2.56)	46,0 (1.81)	36,0 (1.42)	8,0 (0.315)	12,0 (0.47)	178,0 (7.00) 148,5 (5.85)	26,0 (1.02)
25	85,0 (3.35)	51,0 (2.01)	25,0 (0.98)	10,5 (0.413)	22,0 (0.90)	168,5 (6.63) 148,5 (5.85)	26,0 (1.02)
32	102,5 (4.04)	62,0 (2.44)	30,0 (1.18)	13,0 (0.512)	31,0 (1.22)	171,7 (6.76) 154,4 (6.08)	35,0 (1.38)
40	125,5 (4.94)	61,0 (2.40)	35,0 (1.38)	15,0 (0.591)	33,0 (1.30)	- 179,0 (7.05)	34,0 (1.33)

Pressure Relief & Venting Functions with Electrical Selection

CVCS-**-C1
CVCS-**-C3
Sizes 16 to 40



- For thread sizes and orifice kits see page 124.
- Minimum clearance for removal of cover from manifold.

- ▲ Size 03 pilot control valve to be ordered separately. Recommended model Vickers DG4V-3(S), see GB-C-2015.
- DG4V-3(S) with coil type U.
- Δ DG4V-3(S) with coil type F and terminal box.

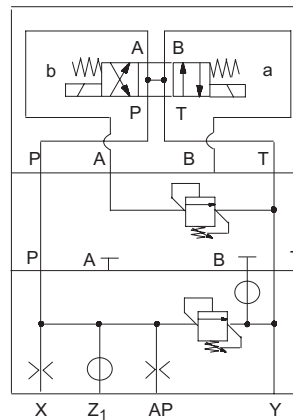
Size	A	B	C	D max. Tolerance -0,1 (0.004)	E	F max. for adjuster type: K & M W	G
16	65,0 (2.56)	48,0 (1.89)	26,0 (1.02)	8,0 (0.315)	12,0 (0.47)	178,0 (7.00) -	26,0 (1.02)
25	85,0 (3.35)	48,0 (1.89)	26,0 (1.02)	10,5 (0.413)	22,0 (0.90)	168,5 (6.63) 148,5 (5.85)	26,0 (1.02)
32	101,8 (4.01)	60,0 (2.36)	35,0 (1.38)	13,0 (0.512)	31,0 (1.22)	171,7 (6.76) 154,4 (6.08)	35,0 (1.38)
40	124,5 (4.90)	58,0 (2.28)	34,0 (1.33)	15,0 (0.591)	33,0 (1.30)	- 179,0 (7.05)	34,0 (1.33)

Pressure Relief Function with High and Low Adjustable Settings, Vented by Electrical Selection

Dual Pressure Control

For dimensions of CVCS-**-C1/C3 covers, and adjustment types, see page 52.

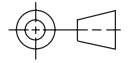
For dimensions of CVGC-3 module see page 123 .



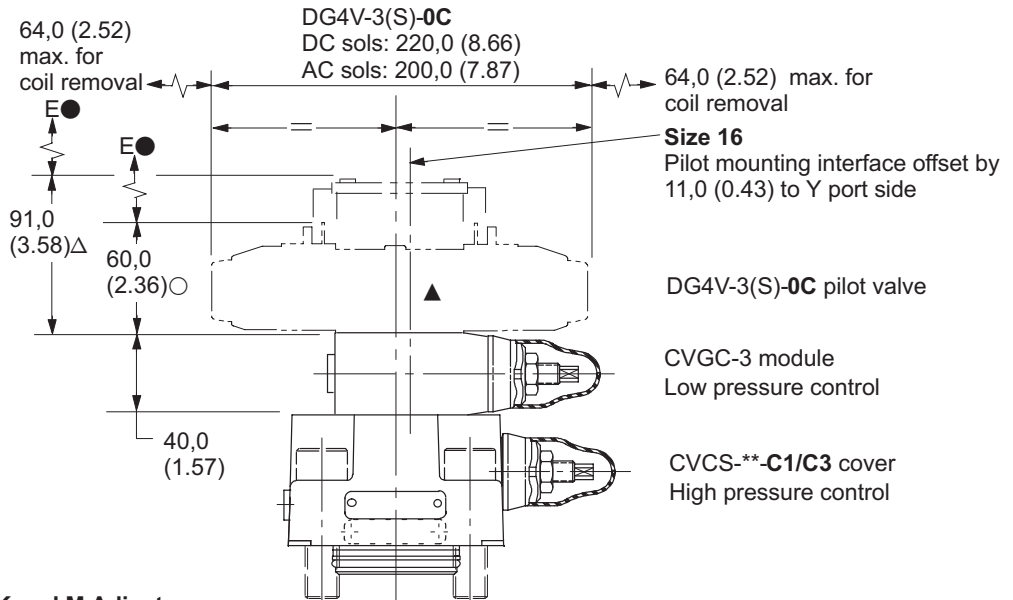
DG4V-3(S)-0C pilot valve
Energize sol. a for low pressure
Energize sol. b for high pressure
De-energize solenoids for venting

CVGC-3 module Low pressure control

CVCS-**-C1/C3 cover High pressure control

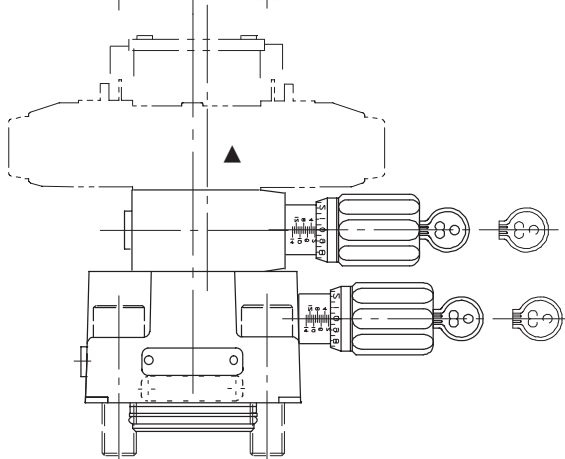


Arrangement With Type W Adjusters



Arrangement With Types K and M Adjusters

Type K:
Adjustment of valve setting is only possible while key is inserted and turned to engage driving pin. When key is removed, adjuster knob can be freely spun and does not engage with mechanism.



- For thread sizes and orifice kits see page 124.
- Minimum clearance for removal of cover from manifold. See previous page

▲ Size 03 pilot control valve to be ordered separately.
Recommended model Vickers DG4V-3(S), see GB-C-2015.

○ DG4V-3(S) with coil type U.

△ DG4V-3(S) with coil type F and terminal box.