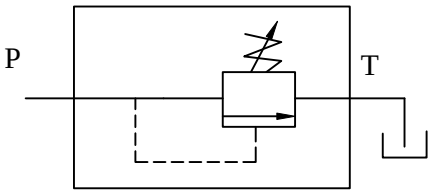
IFP C175-*
REMOTE CONTROL RELIEF VALVE

- Low Pressure Differential
- Quiet Operation
- Easy to Adjust Handle
- Three Pressure Ranges Available
- Panel Mount Design



RATINGS

Model	Pressure Range (PSI)	Rated Flow (US GPM) C175 - *
C175-A	100 - 1000 PSI	5 US GPM
C175-B	500 - 2000 PSI	5 US GPM
C175-C	1500 - 3000 PSI	5 US GPM

Ordering Code

IFP **C175** *****

REMOTE CONTROL RELIEF VALVE

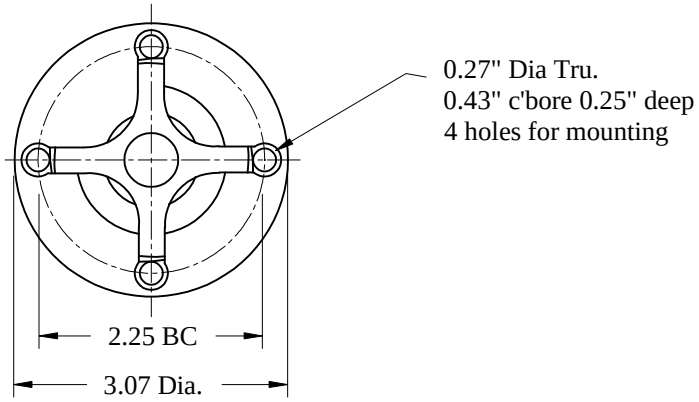
MODEL 1/4 - NPT THREAD

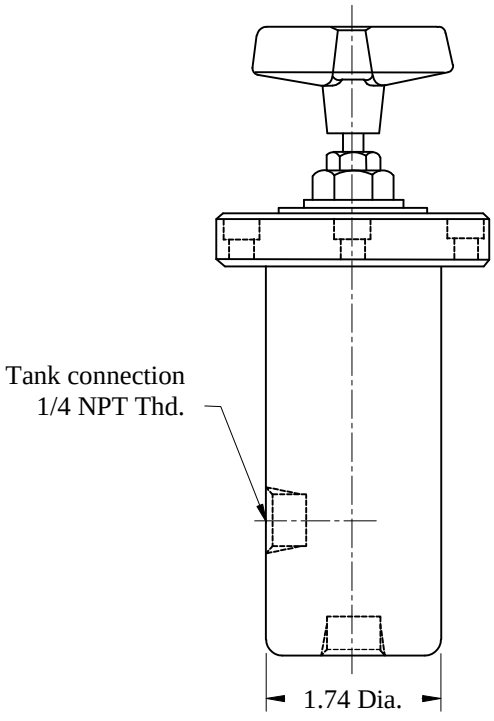
PRESSURE RANGE
A - 100 - 1000 PSI
B - 500 - 2000 PSI
C - 1000 - 3000 PSI

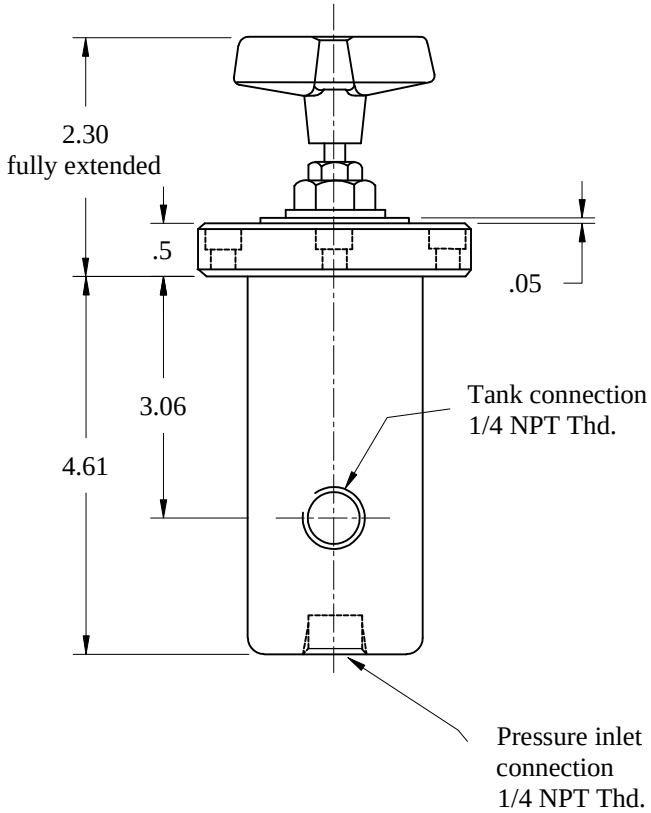
IFP offers a direct acting spring loaded relief for applications requiring a remote control relief valve for pilot operation of variable volume pumps and balanced piston type relief valve.

IFP C175 THREADED RELIEF VALVE INSTALLATION DIMENSIONS

Dimension (inches)

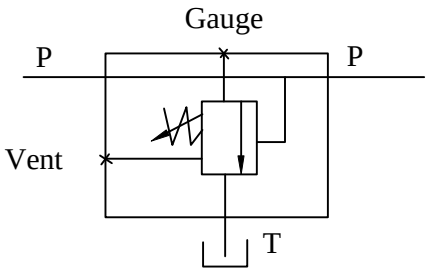






IFP RELIEF VALVES
3000 PSI/BALANCED PISTON TYPE

- High Flow
- Low Pressure Differential
- Quiet Operation/No Chatter
- Optional Vent & Remote Port Connection
- Three Pressure Ranges Available
- Gauge Port Standard



RATINGS

Model	Pressure Range (PSI)	Rated Flow (US GPM) C * 06	Rated Flow (US GPM) C * 10
C * - A	100 - 1000 PSI	60 US GPM	120 US GPM
C * - B	500 - 2000 PSI	60 US GPM	120 US GPM
C * - C	1500 - 3000 PSI	60 US GPM	120 US GPM

Ordering Code

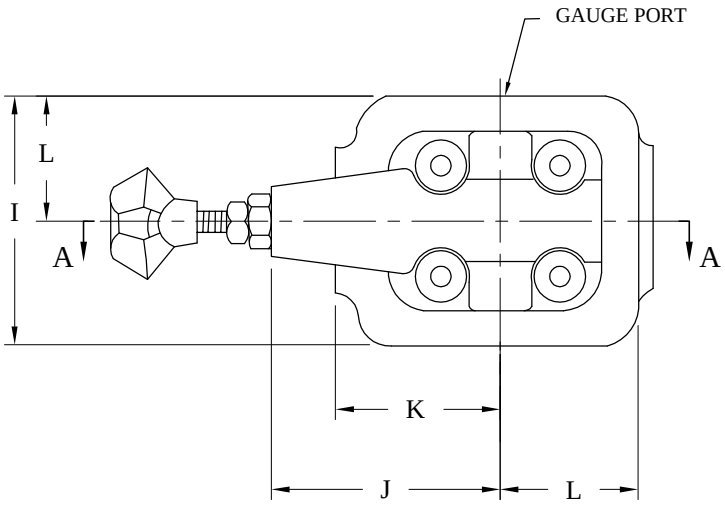
IFP C* 06 A

- IFP — COMPOUND RELIEF VALVE
- C* — MODEL T- NPT THREAD, S-SAE THREAD, G- SUBPLATE MTG (CG06 ONLY) (BSPT AVAILABLE)
- 06 — 06 - VALVE SIZE 3/4", 10- VALVE SIZE 1 1/4"
- A — PRESSURE RANGE A - 100 - 1000 PSI, B - 500 - 2000 PSI, C - 1000 - 3000 PSI

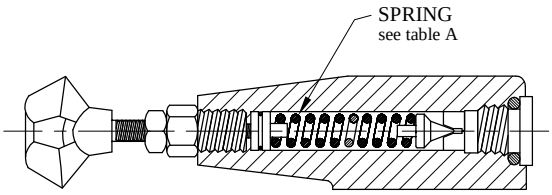
IFP offers a balanced piston relief valve designed for use in applications requiring an adjustable regulating valve to limit the pressure in a hydraulic circuit to a predetermined maximum. The relief valve consists of a control poppet and main spool which provides low pressure differential and quiet operation. Pressure can be adjusted by loosening a jam nut and turning the adjustment knob. Turning clockwise increases pressure. Vent port is provided for remotely controlling or venting the relief valve.

IFP CT06/CS06
THREADED RELIEF VALVE
INSTALLATION DIMENSIONS

DIMENSION (inches)

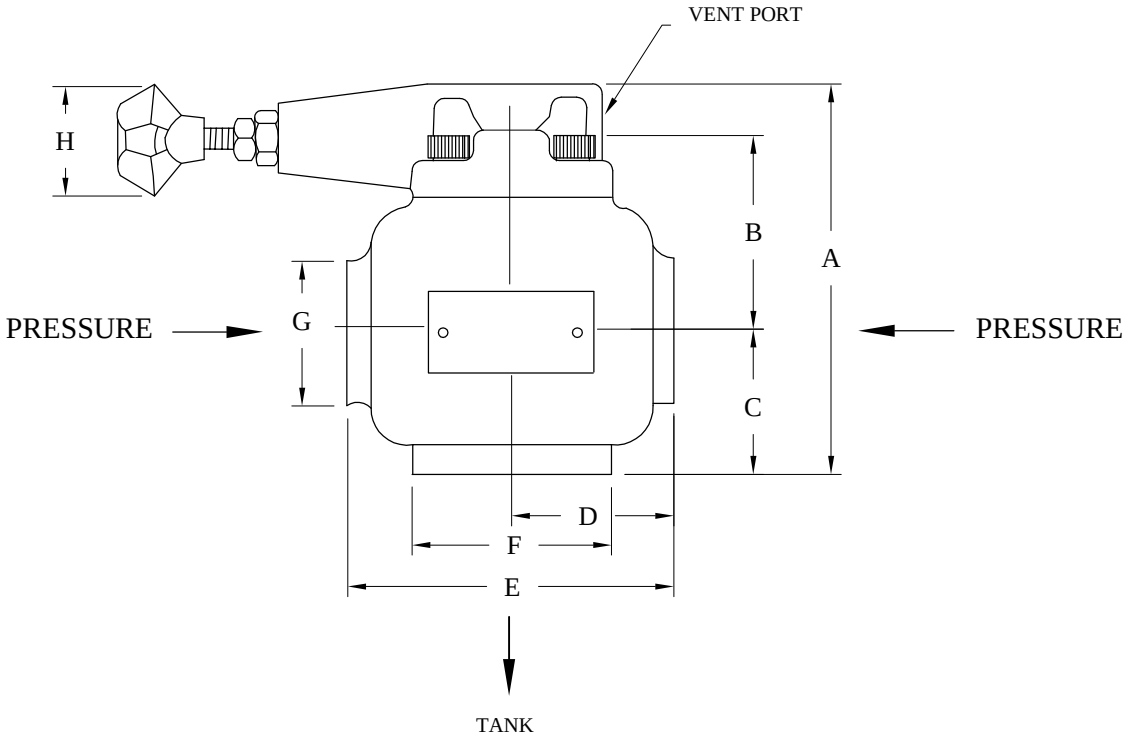


SECTION A - A



SPRING Table A

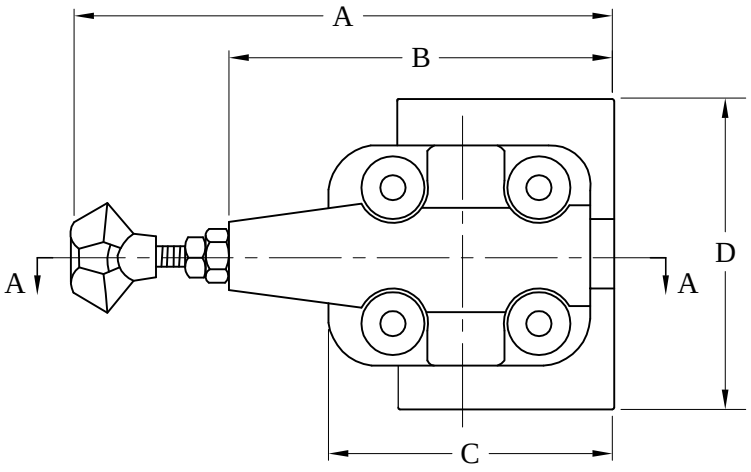
Code	Part number	Pressure
A	610-1	100 - 1000 PSI
B	610-2	500 - 2000 PSI
C	610-3	1500 - 3000 PSI

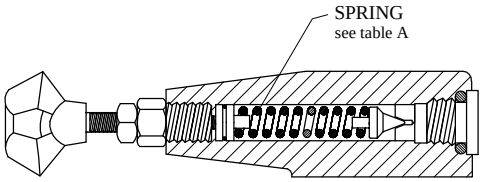


MODEL	A	B	C	D	E	F	G	H	I	J	K	L
CT/S06	5.07	2.48	1.79	1.82	3.64	2.24	2.24	2.07	2.87	2.37	2.48	1.82
PORTS - 3/4 NPTF / 1.0625 - 12 STRAIGHT THREAD												

IFP CG-06
SUBPLATE RELIEF VALVE
INSTALLATION DIMENSIONS

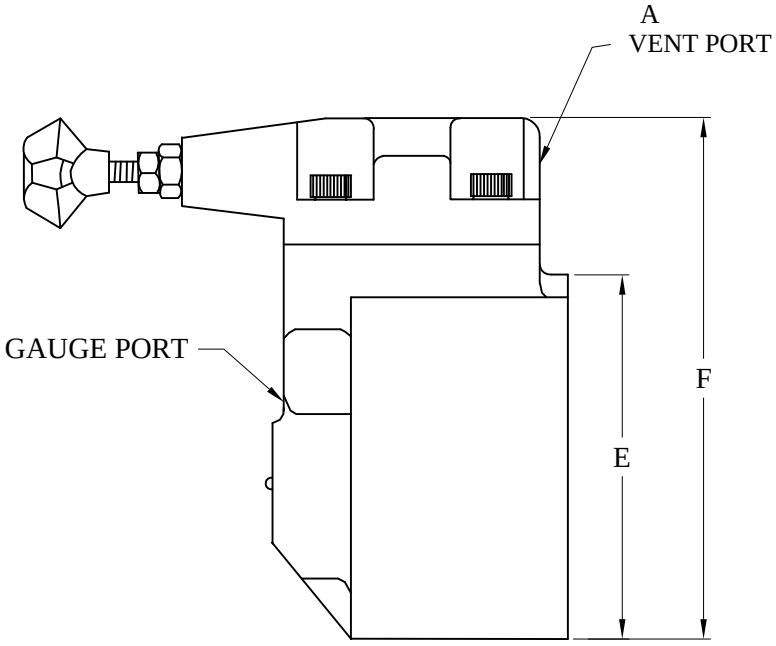
Dimension (inches)

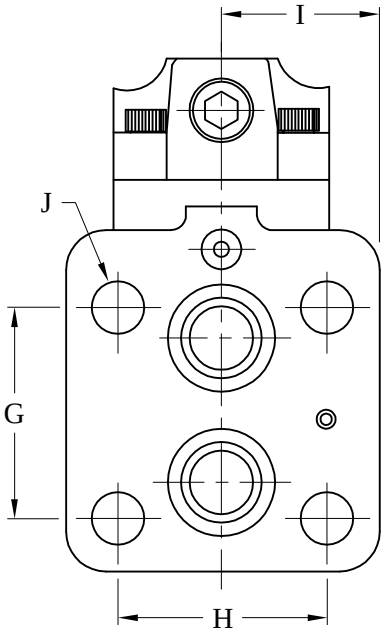




SPRING Table A

Code	Part number	Pressure
A	610-1	100 - 1000 PSI
B	610-2	500 - 2000 PSI
C	610-3	1500 - 3000 PSI





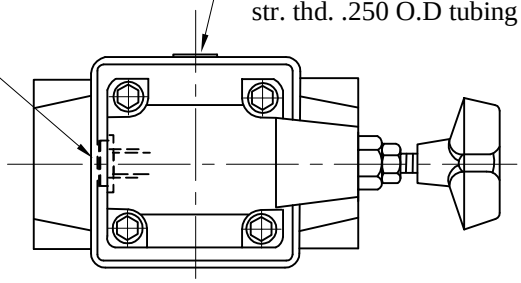
MODEL	A	B	C	D	E	F	G	H	I	J
CG-06	6.02	4.10	2.90	4.00	4.79	6.50	2.65	2.75	2.00	Ø.66

IFP CT10/CS10 THREADED RELIEF VALVE INSTALLATION DIMENSIONS

DIMENSION (inches)

Vent connection
0.5625-18UNF-2B str. thd.
0.375 O.D tubing

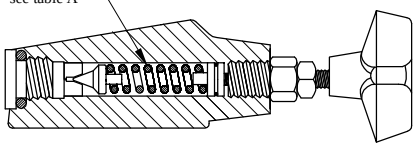
Pilot or pressure gauge connection
(if required) .4376-20UNF-2B
str. thd. .250 O.D tubing

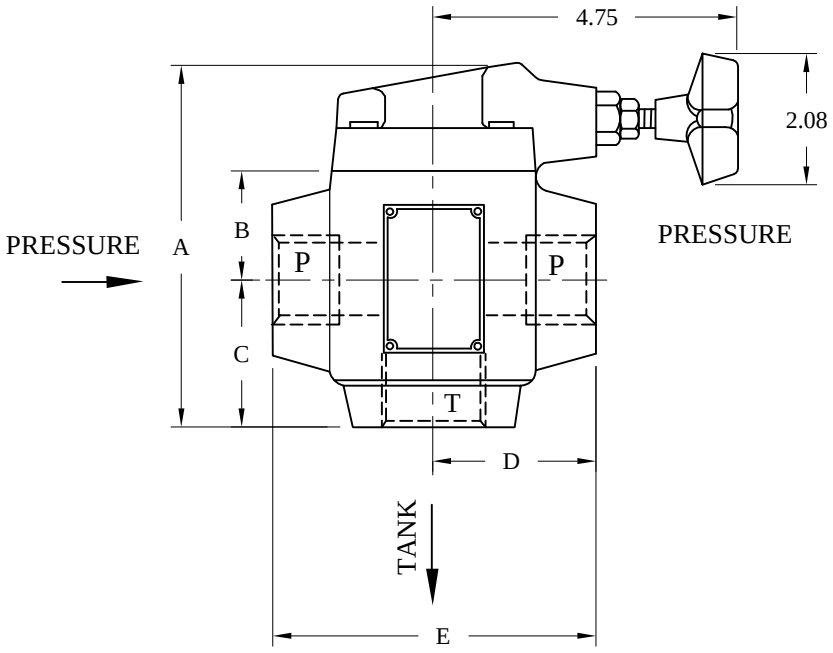


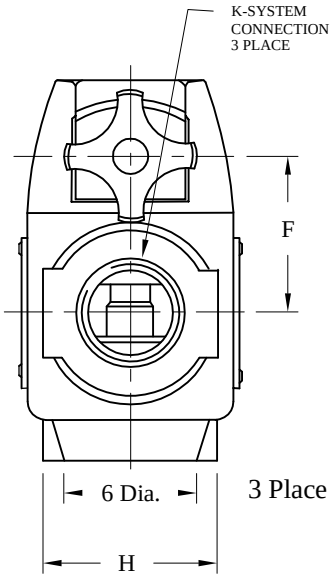
SPRING Table A

Code	Part number	Pressure
A	610-1	100 - 1000 PSI
B	610-2	500 - 2000 PSI
C	610-3	1500 - 3000 PSI

SPRING
see table A







Model series	A	B	C	D	E	F	G	H	I	J
CT/S-10	6.18	1.62	2.43	2.44	4.88	2.61	2.43	2.75	3.06	1.68

P - System Connections	
CS - 10 Models	CT - 10 Models
1.6250 - 12 UN - 2 B Thd. (1.250 O. D Tubing)	1 1/4 NPTF Thread.

IFP C*5-06/10 ELECTRICALLY CONTROLLED PILOT OPERATED RELIEF VALVES

- High Flow
- Low Pressure Differential
- Quiet Operation/No Chatter
- Variety Pilot Controls
- Three Pressure Ranges

RATINGS

Model	Pressure Ranges	Rated Flow 06 - 3/4"	Rated Flow 10 - 1 1/4"
C *5 - A	100 - 1000 PSI (7-69 bar)	60 US GPM (227.4 LPM)	120 US GPM (454 LPM)
C *5 - B	500 - 2000 PSI (34-138 bar)	60 US GPM (227.4 LPM)	120 US GPM (454 LPM)
C *5 - C	1500 - 3000 PSI (103-207 bar)	60 US GPM (227.4 LPM)	120 US GPM (454 LPM)

Ordering Code

IFP C*5 06 0C A 115VAC 72 WB

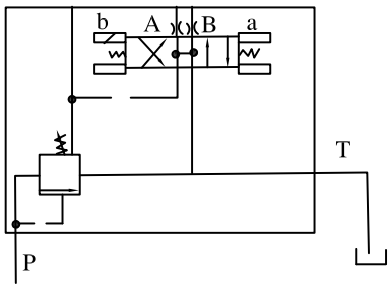
- **IFP** — SOLENOID CONTROL RELIEF VALVE
- **C*5** — T - NPT THREAD; S- SAE THREAD; G- GASKET
- **06** — VALVE SIZE 06 - 3/4"; 10 - 1 1/4"
- **0C** — PILOT SPOOL OPTION (SEE TABLE/ PAGE I3.2)
- **A** — PRESSURE RANGE: A - 100 - 1000 PSI; B - 500 - 2000 PSI; C - 1000 - 3000 PSI
- **115VAC** — SOLENOID VOLTAGE: -115 VAC; - 220 VAC; - 12 VDC; - 24 VDC
- **72** — DESIGN NUMBER
- **WB** — DN - DIN CONNECTER; WB- WIRING BOX

IFP offers a balanced piston relief valve threaded or subplate mounted with a D03 electrical pilot control. Valves are designed for applications requiring an adjustable regulating valve to limit the pressure in a hydraulic circuit to a predetermined maximum. The addition of a D03 electrical pilot valve enables circuit to be vented to tank or an optional pressure port used when the control valve is energized. Control options available are shown on page I3.2. Control pressure can be adjusted by loosening a jam nut and turning the adjustment knob clockwise to increase pressure and counter clockwise to decrease pressure.

IFP C*5 - 06/10
PILOT OPERATED RELIEF VALVES

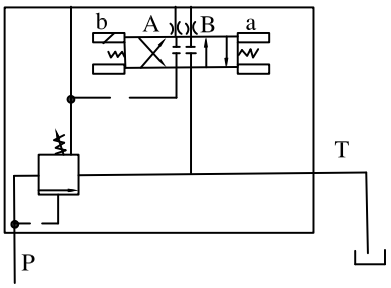
MODEL C*5-**-0C
PILOT VALVE MODEL (DG03 0C...)

SOLENOID "A" ENERGIZED	CONTROL CONNECTION "A"
SOLENOID "B" ENERGIZED	CONTROL CONNECTION "B"
SOLENOID DE-ENERGIZED	VALVE IS VENTED



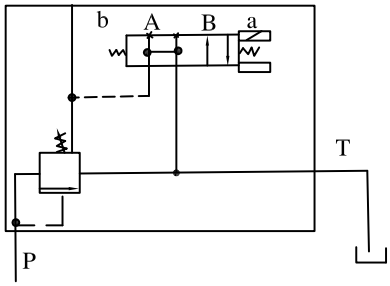
MODEL C*5-**-2C
PILOT VALVE MODEL (DG03 2C...)

SOLENOID "A" ENERGIZED	CONTROL CONNECTION "A"
SOLENOID "B" ENERGIZED	CONTROL CONNECTION "B"
SOLENOID DE-ENERGIZED	MAIN BODY ADJUSTMENT



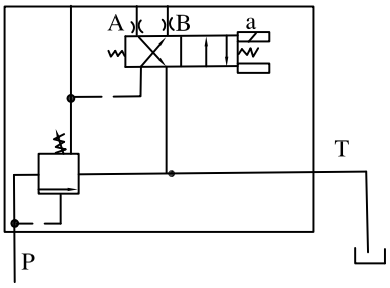
MODEL C*5-**-0B
PILOT VALVE MODEL (DG03 0BL...)

SOLENOID "A" ENERGIZED	MAIN BODY ADJUSTMENT
SOLENOID "A" ENERGIZED	VALVE IS VENTED



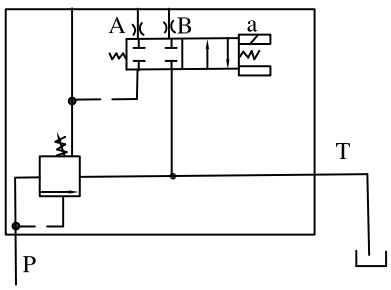
MODEL C*5-**-1A
PILOT VALVE MODEL (DG03 2AL...)

SOLENOID "A" ENERGIZED	CONTROL CONNECTION "A"
SOLENOID "A" DE-ENERGIZED	CONTROL CONNECTION "B"



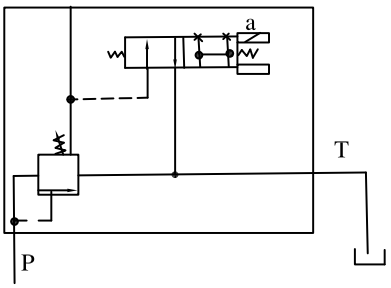
MODEL C*5-**-2B
PILOT VALVE MODEL (DG03 2BL...)

SOLENOID "A" ENERGIZED	CONTROL CONNECTION "A"
SOLENOID "A" DE-ENERGIZED	MAIN BODY ADJUSTMENT



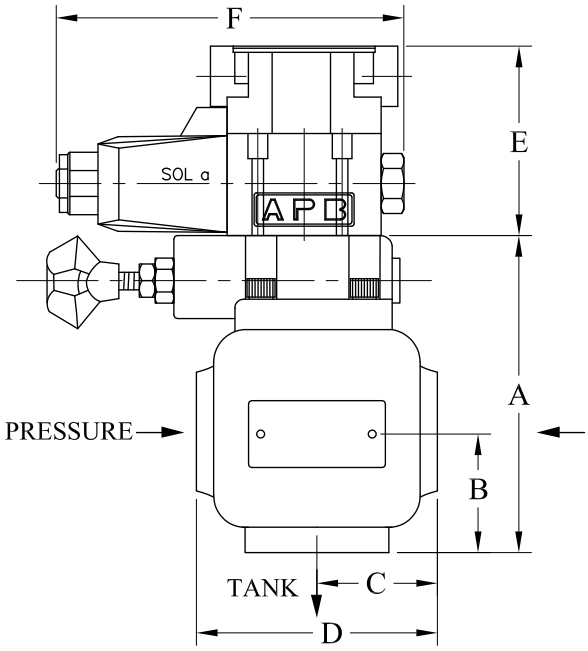
MODEL C*5-**-0F
PILOT VALVE MODEL (DG03 0FL...)

SOLENOID "A" ENERGIZED	VALVE IS VENTED
SOLENOID "A" DE-ENERGIZED	MAIN BODY ADJUSTMENT

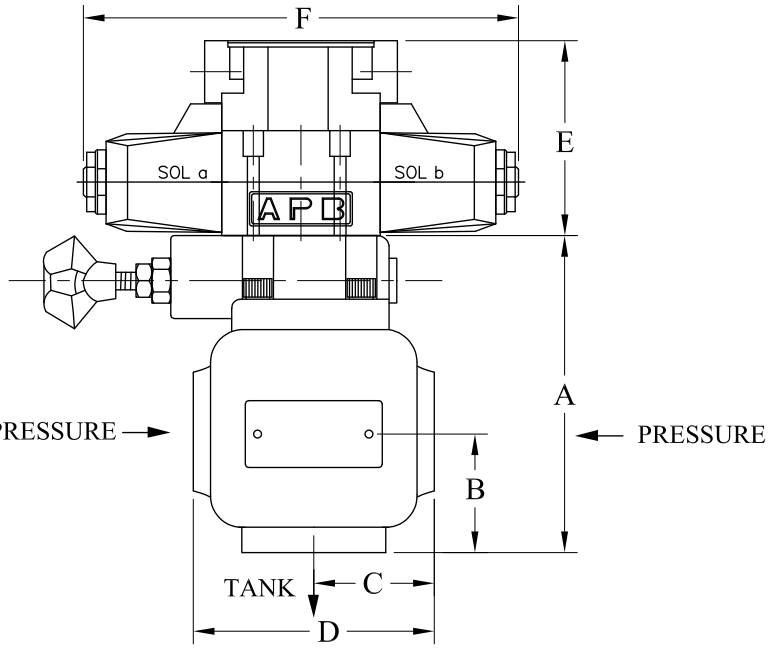


IFP CT 5-06 ELECTRICAL PILOT RELIEFS INSTALLATION DIMENSIONS

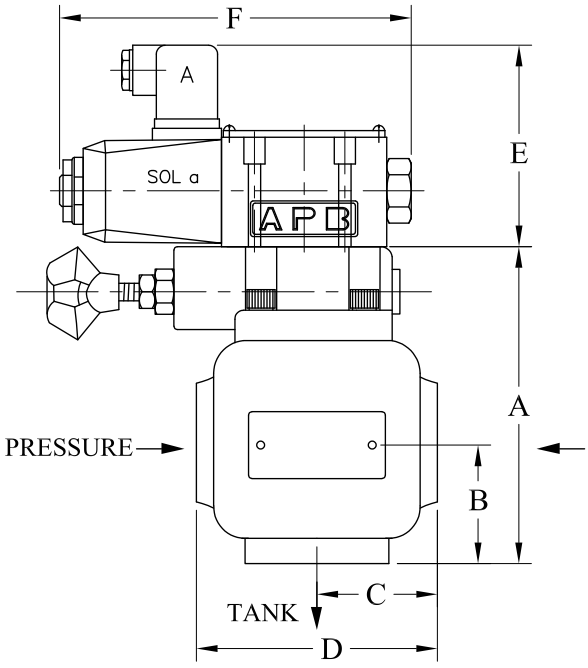
Drawing A



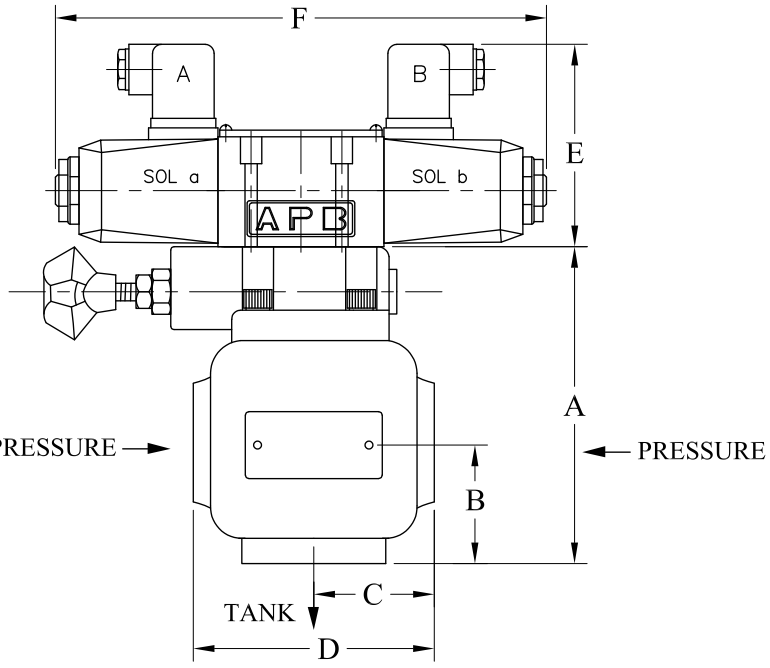
Drawing B



Drawing C



Drawing D



Drawing A - WB wiring Box
- Pilot Spool 0B/1A/2B/0F

Drawing B - WB wiring Box
- Pilot Spool 0C/2C

Drawing C - DN - Din Connector
- Pilot Spool 0B/1A/2B/0F

Drawing D - DN - Din Connector
- Pilot Spool 0C/2C

Optional Ports

CT5 - 06 = 3/4 NPTF

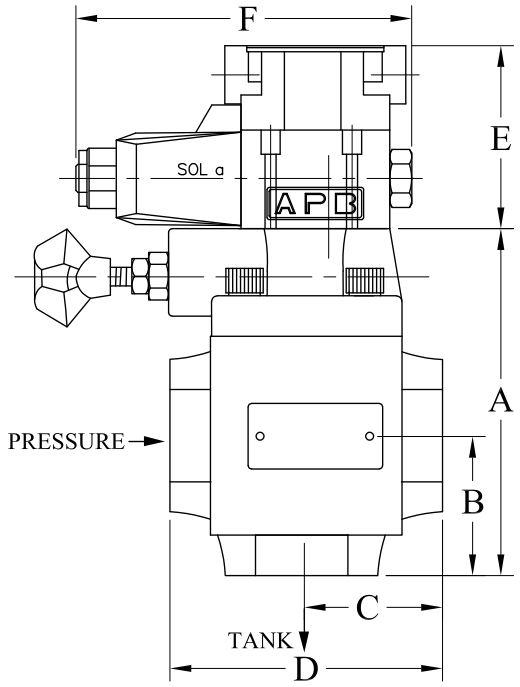
CS5 - 06 = 1.0625 - 12 Straight thread

	A	B	C	D	E	F
Drawing A	5.07	1.79	1.82	3.64	3.38	6.42
Drawing B	5.07	1.79	1.82	3.64	3.38	8.26
Drawing C	5.07	1.79	1.82	3.64	3.07	6.20
Drawing D	5.07	1.79	1.82	3.64	3.07	8.26

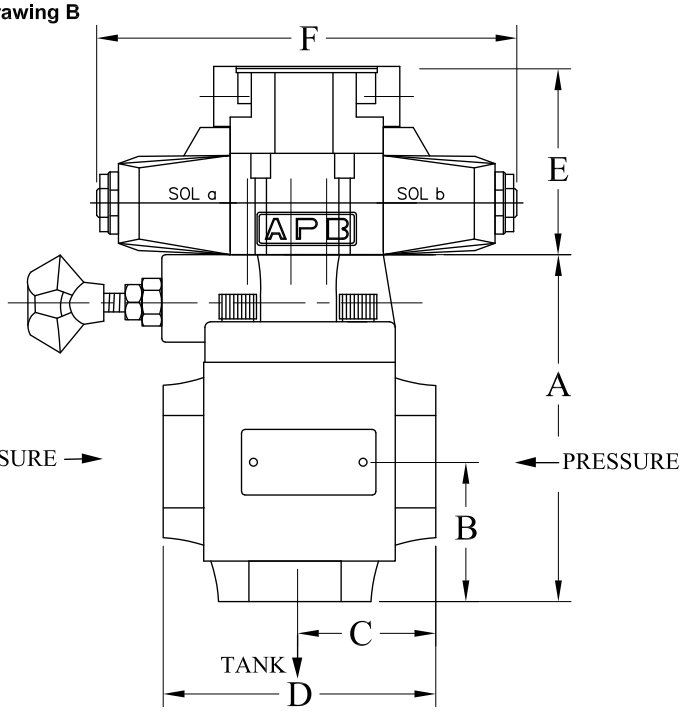
Dimensions in inchies

IFP CT 5-10 ELECTRICAL PILOT RELIEFS
INSTALLATION DIMENSIONS

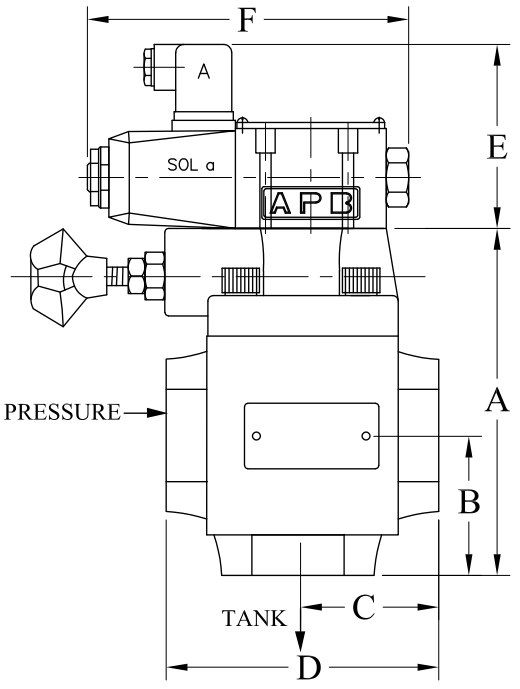
Drawing A



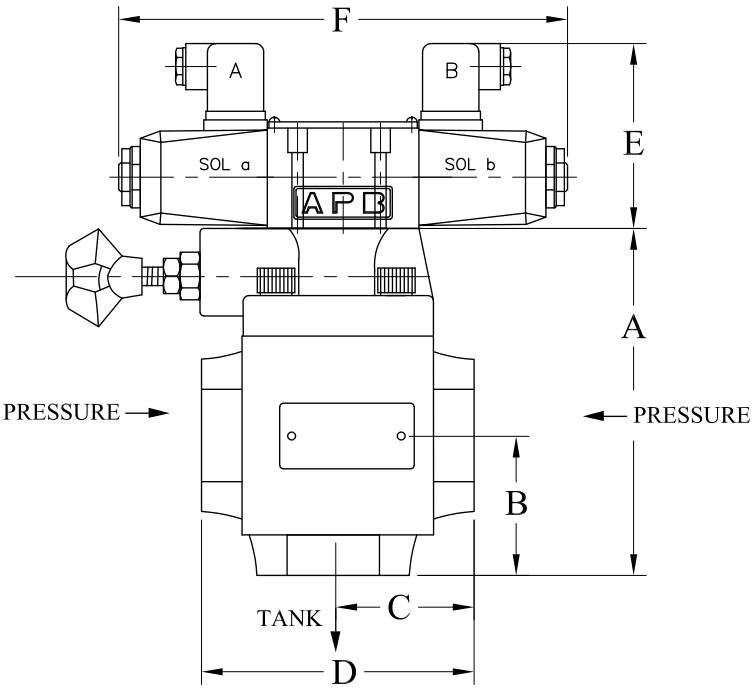
Drawing B



Drawing C



Drawing D



Drawing A - WB wiring Box
- Pilot Spool 0B/1A/2B/0F

Drawing C - DN - Din Connector
- Pilot Spool 0B/1A/2B/0F

Drawing B - WB wiring Box
- Pilot Spool 0C/2C

Drawing D - DN - Din Connector
- Pilot Spool 0C/2C

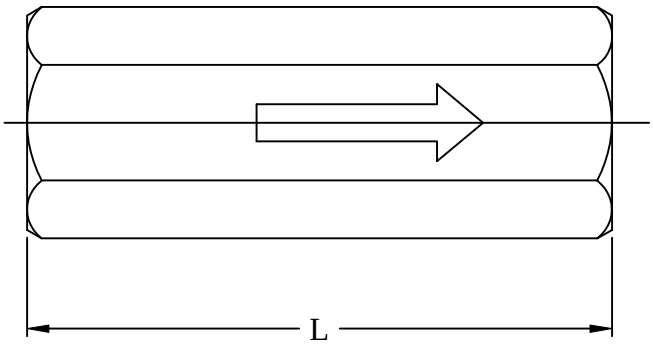
Optional Ports
CT5 - 10 = 1 1/4 NPTF
CS5 - 10 = 1.6250 - 12 Straight thread

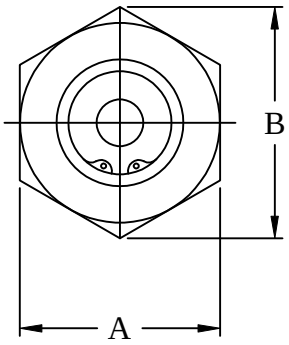
	A	B	C	D	E	F
Drawing A	6.18	2.43	2.44	4.88	3.38	6.42
Drawing B	6.18	2.43	2.44	4.88	3.38	8.26
Drawing C	6.18	2.43	2.44	4.88	3.07	6.20
Drawing D	6.18	2.43	2.44	4.88	3.07	8.26

Dimensions in inchies

IFP CHECK VALVES

- 3000 PSI working pressure
- Optional cracking pressures
- Steel poppet eliminate chatter
- Free flow one direction
  Shut-off reverse direction
- Mounting position of valve not limited





Model	PORTS	L	A	A
DTP 03	3/8" NPTF	2.75	1.10	1.25
DTP 04	1/2" NPTF	2.75	1.10	1.25
DTP 06	3/4" NPTF	3.75	1.50	1.70
DTP 08	1" NPTF	4.45	1.88	2.15
DTP 10	1-1/4" NPTF	5.10	2.50	2.85

Ordering Code

IFP — SERIES IN LINE

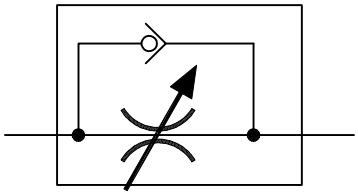
DTP — THREAD TYPE
DTP (NPT)
DTS (SAE)

03 — VALVE SIZE
03-3/8"
04-1/2"
06-3/4"
08-1"
10- 1-1/4"

A — CRACKING PRESSURE
A 5 PSI
B 30 PSI
C 70 PSI

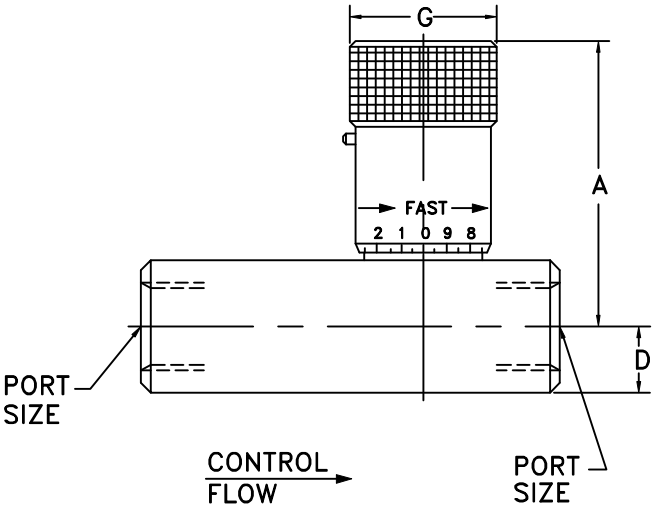
IFP FLOW CONTROL VALVES

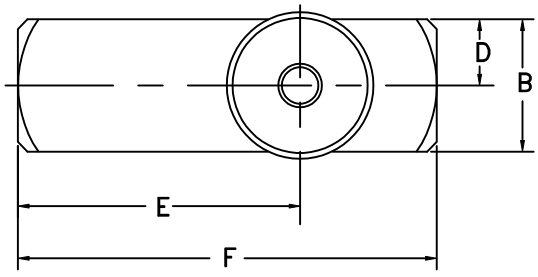
- **Designed for extremely precise control of air and hydraulic fluids**
- **Max pressure 5000 PSI**
- **All metal construction**
- **Micrometer knob with easy to read colour bands**
- **Temperature -20° F to 400° F**



Model	Free Flow Rate GPM	Port Size	A	B	E	F	G	Weight lbs.
FCI 02	5	1/4–18 NPTF	1.75	0.81	1.66	2.62	0.81	0.5
FCI 03	8	3/8–18 NPTF	2.16	1.00	1.75	2.75	1.00	0.7
FCI 04	15	1/2–14 NPTF	2.68	1.25	2.24	3.44	1.19	1.5
FCI 06	25	3/4–14 NPTF	3.26	1.50	2.58	3.88	1.38	2.6

Material – Steel Body
Stainless Piston & Stem
Viton "O" Ring/Teflon back–up

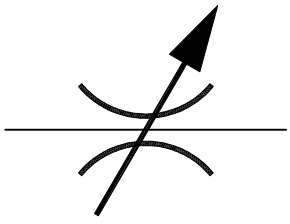


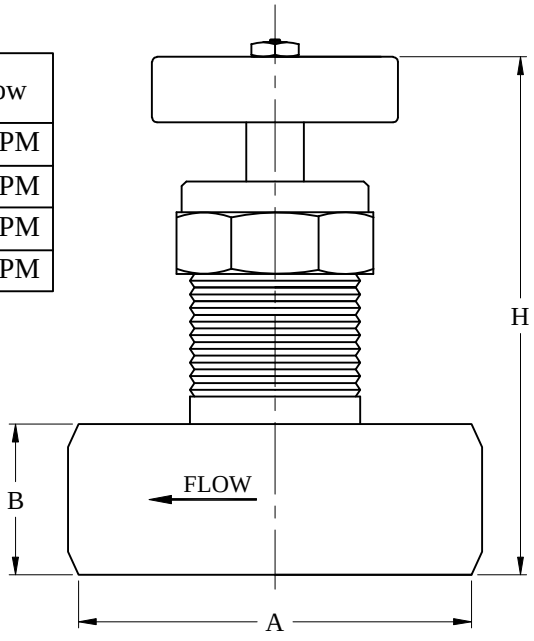


IFP NEEDLE VALVES

- **3000 PSI working pressure**
- **Leak-free shut-off**
- **Panel mount hardware standard**
- **Fine Metering**
- **Adjustments can be made under pressure**

PART No.	THREAD	A	B	H	Pressure	Flow
NVI-02	1/4" N.P.T	2.08	0.86	3.58	5000 PSI	5 GPM
NVI-03	3/8" N.P.T	2.08	0.86	3.58	5000 PSI	8 GPM
NVI-04	1/2" N.P.T	2.44	1.25	4.48	5000 PSI	15 GPM
NVI-06	3/4" N.P.T	3.54	1.49	5.82	5000 PSI	25 GPM

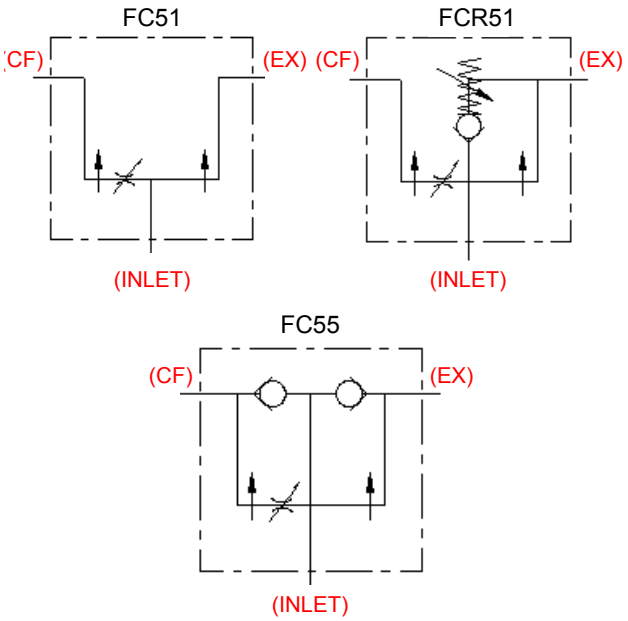




Designed for use with air, oil, water, steam, liquid fuel & most chemicals.

IFP "FC" Variable Flow Control Pressure Compensated

New Product 2009



IFP FC & FCR pressure compensated variable flow control valves operate by controlling the controlled flow orifice area from zero to maximum flow with the rotation of the adjustable lever to a specific flow increment. Excess flow is supplied out the excess port on the valve, and the sum of the controlled flow and excess flow is equal to the input flow. Both the controlled flow and excess flow are pressure compensated and provide smooth constant outlet flow regardless of the pressure on the CF and EX ports.

IFP FCR has the added feature of an adjustable ball spring relief on the controlled flow to limit the maximum working pressure of the CF controlled flow.

IFP FC55 incorporates reverse free flow checks allowing cylinders and motors to operate in reverse. Flow can can be reversed from either the EX or CF ports bypassing the metering function to the inlet of the valve

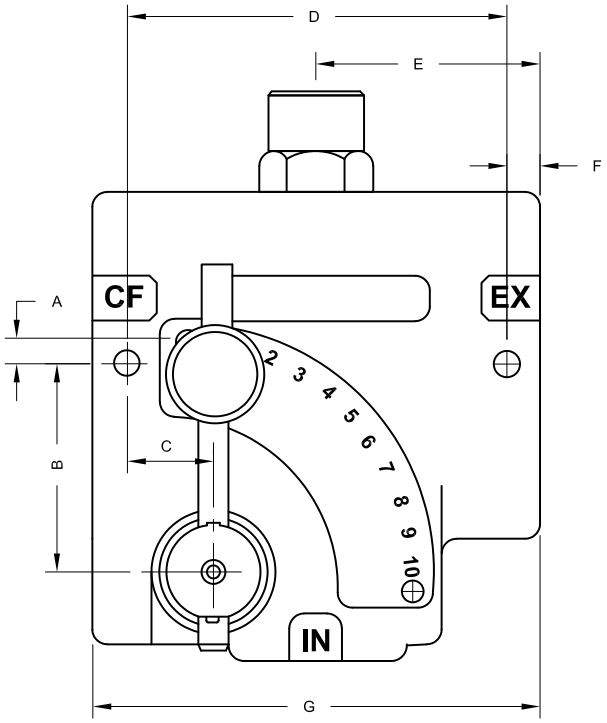
IFP FC R 51 - 06 - P - N

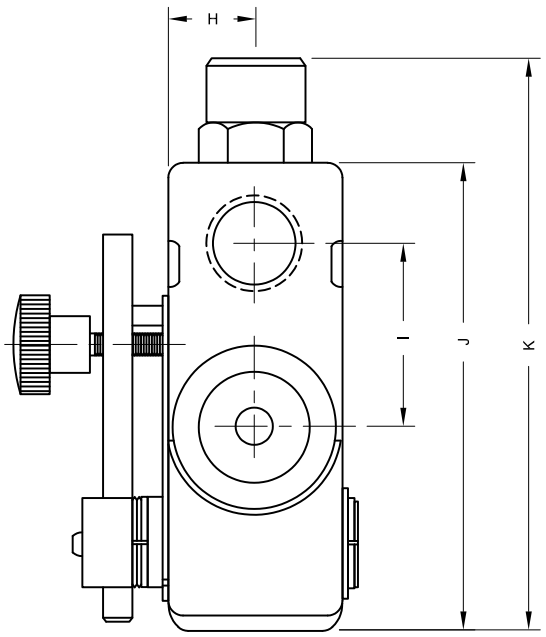
Relief:
Omit - No Relief
R- Ball spring Relief
(Factory set 1500 PSI / Adj. 750 - 3000 PSI)

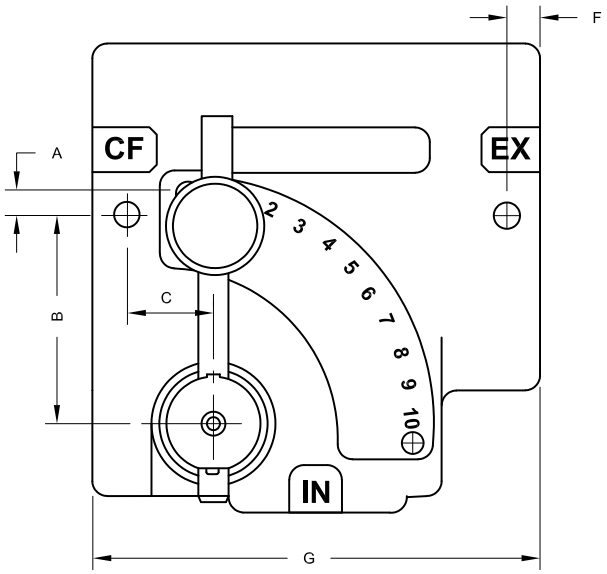
Flow Path:
51 - Standard Flow Control
55 - Free reverse flow
(Not available FC*R* feature)

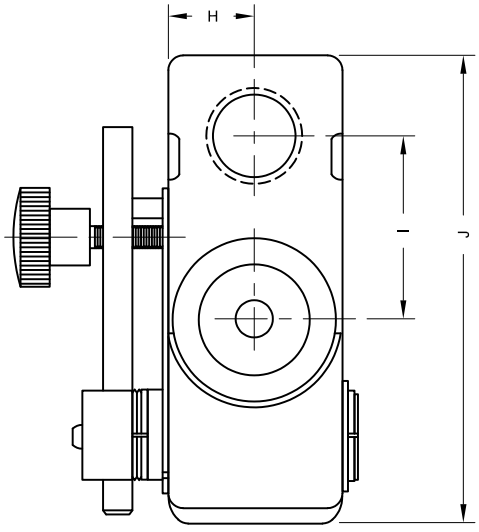
Port Type:
P - NPT Thread
S -SAE O Ring Thread

Port Size:
NPT : 04 - 1/2 NPT (0 - 16 GPM)
06 - 3/4 NPT (0 - 30 GPM)
SAE: 05 - SAE- #10 (0 - 16 GPM)
06 - SAE- #12 (0 - 30 GPM)





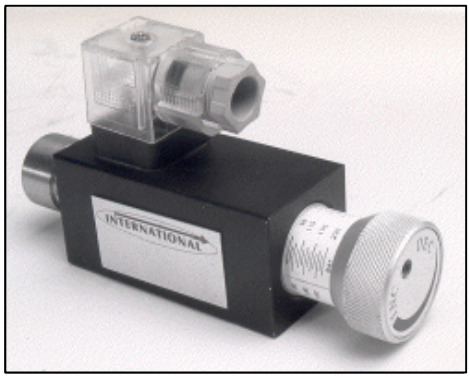




	A	B	C	D	E	F	G	H	I	J	K
FCR55	.25 (6.3)	2.13 (54.1)	.88 (22.3)	3.87(98.2)	2.28 (57.9)	.34 (8.63)	4.56 (115.8)	.90 (22.8)	1.87 (47.5)	4.75 (120.6)	5.78 (146.8)
FC55	.25 (6.3)	2.13 (54.1)	.88 (22.3)	3.87(98.2)	2.28 (57.9)	.34 (8.63)	4.56 (115.8)	.90 (22.8)	1.87 (47.5)	4.75 (120.6)	5.78 (146.8)

PRESSURE SWITCHES

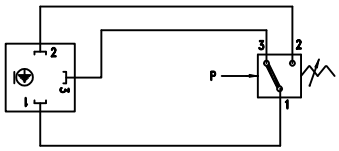
- **Micrometer adjustment**
- **Three pressure ranges**
- **Low differential**
- **Compact design**



0RDERING CODE

PS–02–1–10

- Design series
- Pressure range 1,2,3
- Pipe diameter (1/4 NPT)
- Pressure switch

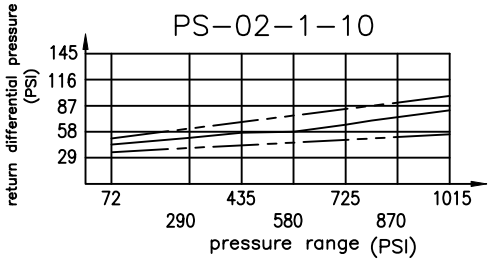


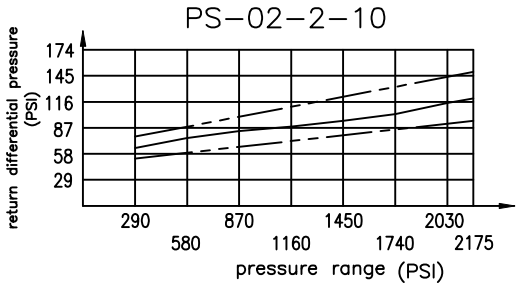
Max. Switching Capacity :
250VAC/7A,30VDC/7A
Connection:
NCC:clamp 1–3
NOC:clamp 1–2

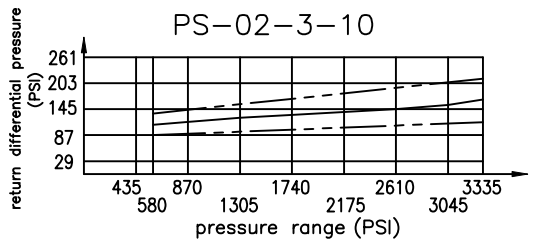
TYPE CODING

Types	Pipe Dia.	Max. Pressure (PSI)	Pressure Range (PSI)	Weight (lbs)
PS–02–1–10	1/4	4500	70–1000	1.25
PS–02–2–10	1/4	4500	300–2000	1.25
PS–02–3–10	1/4	4500	500–3500	1.25

PERFORMANCE CURVES







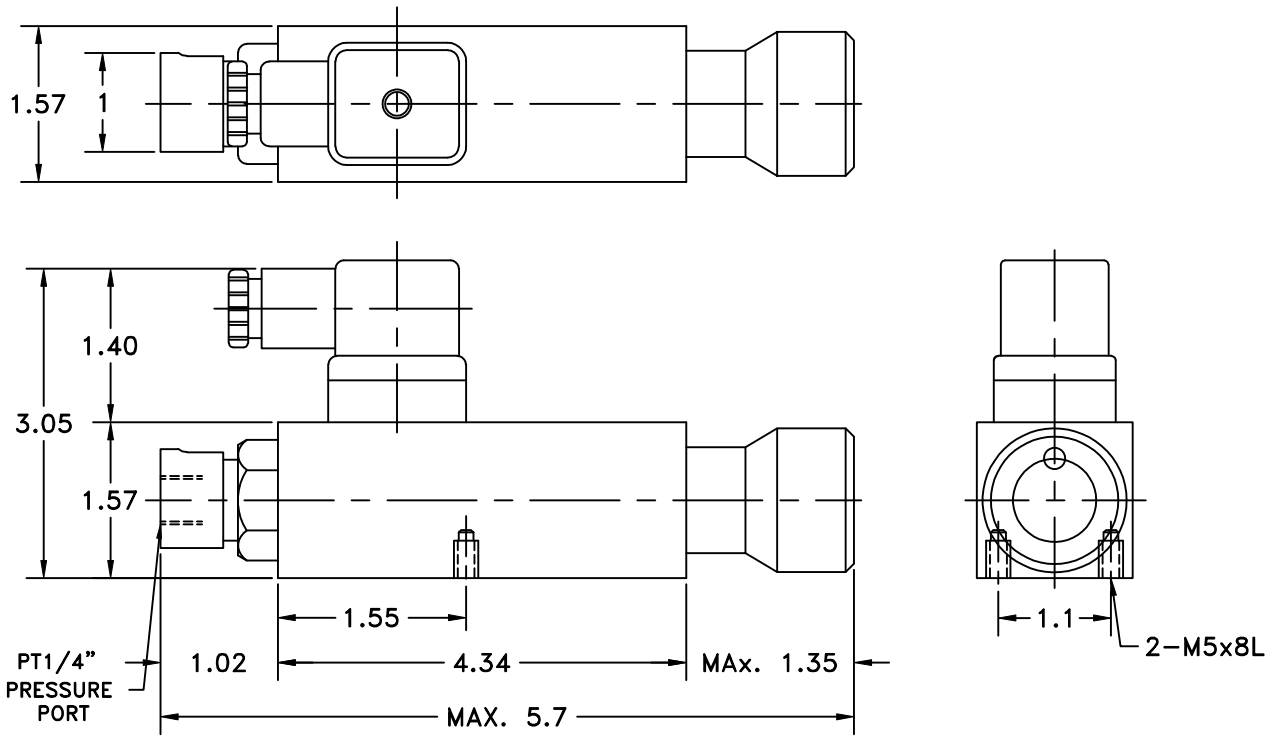
——— average value

– – – localization of scatter

PRESSURE SWITCHES

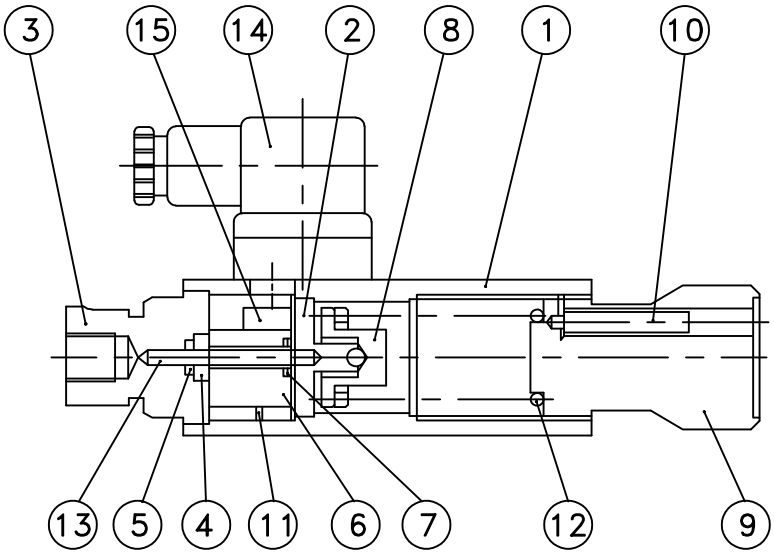
DIMENSIONS (inches)

PS-02-*10



CROSS SECTION DIAGRAM

PS-02-*-10



NO.	DESCRIPTION
1	Body
2	Retainer (1)
3	Nut
4	Set Nut
5	Rod seal
6	Guider
7	Retainer (2)
8	Adjust Screw
9	Set screw
10	Locking screw
11	Spring pin
12	Spring
13	Rod
14	Connector
15	Micro switch

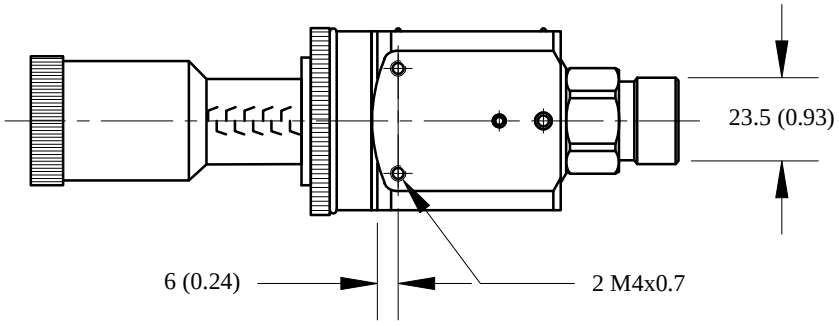
PRESSURE SWITCHES SW-02-4-20

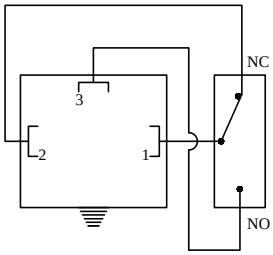
FEATURES:

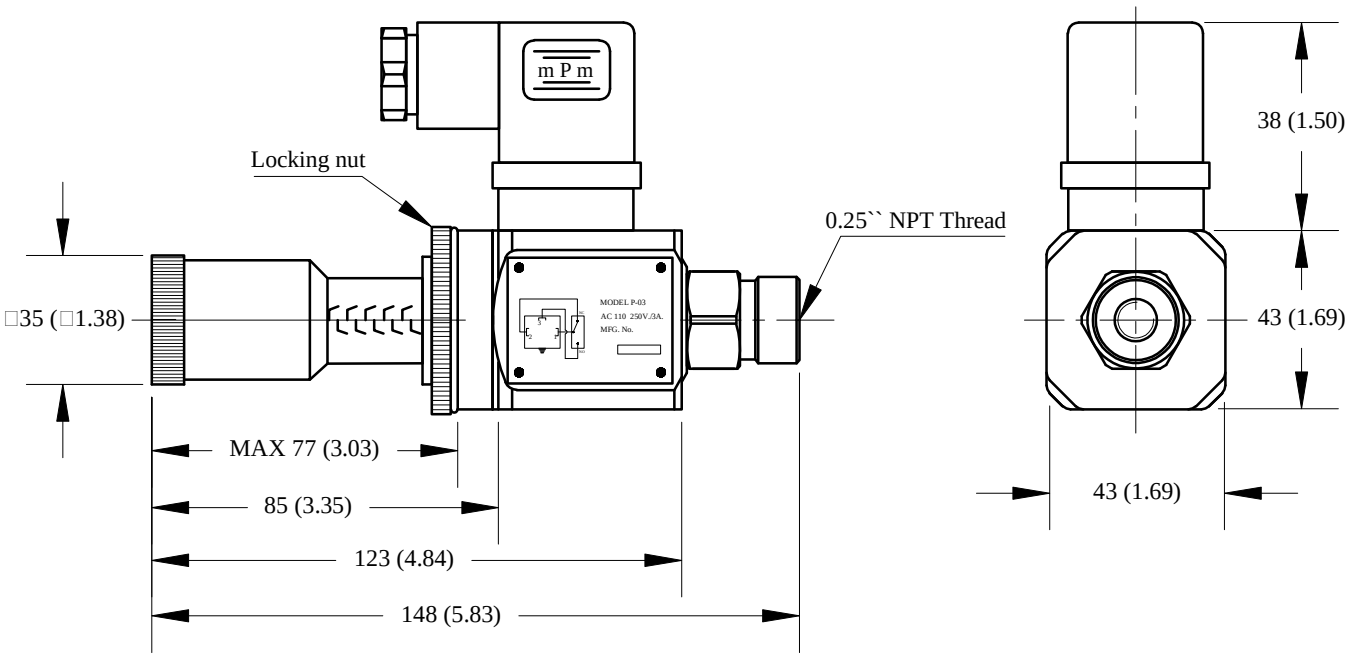
- Economical
- High Pressure Ratings
- Wide Adjustment Range
- Low Differential
- Graduated Micrometer Adjustment
- Compact Design
- Locking nut for panel mount

APPLICATIONS:

- Automated Circuit Control
- System Alarm
- Pilot Light Activation
- System Overload Protection



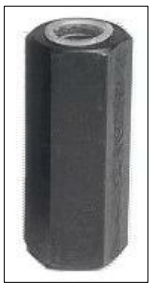


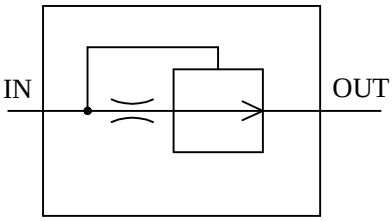


Model	Valve Size	Pressure Range	Pressure Differance	Electrical Rating
SW-02 4 20	1/4"	400 - 5000 PSI	at 400 PSI: 115 - 145 PSI at 5000 PSI: 215 - 290 PSI	DC 24V AC 110-250V/3A

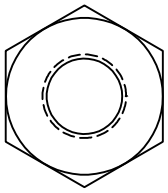
IFP AIR BLEED VALVES

- **Removes air trapped in Hydraulic system**
- **Operating pressure to 5000 PSI (Non stock service)**
- **Facilitate pump priming at start up**





Model No	Port Sizes	A	B
ABT20S	3/8" NPT	2.10	1.00



IFP Air Bleed Valves are used to remove trapped air in a hydraulic circuit or facilitate pump priming at start up when operating in a closed circuit. Unit operates by allowing air to pass at low pressure (start up) to the tank and oil flow will be closed as pressure increases.

Note:- Air Bleed should be installed as close as possible to pump outlet in a vertical position. Air Bleed return line should be terminated below oil level in the reservoir.