

General Information

Pressure Gauges

The maximum working pressures of standard gauges should not exceed 75% of full scale for constant pressure applications, or 66% of full scale for pulsating pressures. Normal overpressures allowed are: 1.25 times FSV for ranges up to 1,000 psi; 1.15 times FSV for ranges between 1,000 and 10,000 psi; 1.10 times FSV for higher pressures. Dial face includes both psi (black) and bar (red) scales. PSI only faces may be available. To see standard increments and dial faces, see pages 123-124.

Glycerine is used as standard in most Dynamic fluid-filled gauges. Neither glycerine nor silicone should be used in applications involving oxygen, chlorine, nitric acid, hydrogen peroxide or other oxidizing agents.

All Dynamic gauges come with a standard polycarbonate lens. Safety glass or tempered glass covers are available with minimum order. Dynamic filled gauges include a dual relief valve/blowout disc for operating safety.

Test Points

The need for preventative maintenance of hydraulic systems in general has added to the use of test points throughout the system. This need is answered by the installation of a range of test points, plugs and probes, which can be connected under full system pressure to 6000 psi. Where the introduction of test points is needed, and the hydraulic system uses flexible hydraulic hoses, Dynamic has a range of Hydra-Test hose couplings fitted with test points. For full product data consult pages 16-20.

Valves & Flow Dividers

New products have been recently added to Dynamic's extensive inventory of valves and flow dividers, including a 6-way, 2-station Selector Valve and a Spool Flow Divider.

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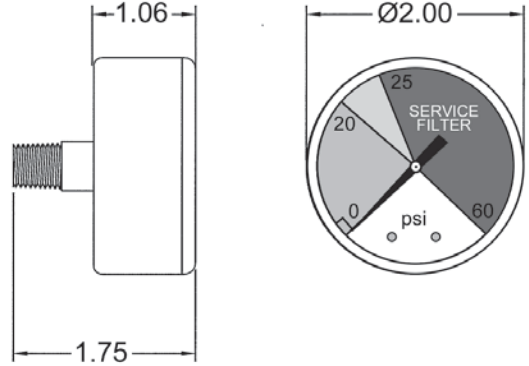
Model DCI-20

Features

- Steel Case
- Phosphor Bronze Bourdon Tube
- Standard Range: 0-60 psi
- 1/8" NPT Bronze Connection
- Polycarbonate Lens
- Dry Gauge
- **Liquid-filled Available w/ SS Case*



Installation Data



Ordering Example: Model **DCI-20** Options

| Model | Options |
|----------------------------------|--|
| DCI-20 = 2" Service Filter Gauge | omit = Dry LF* = Liquid-filled <i>*special order</i> |

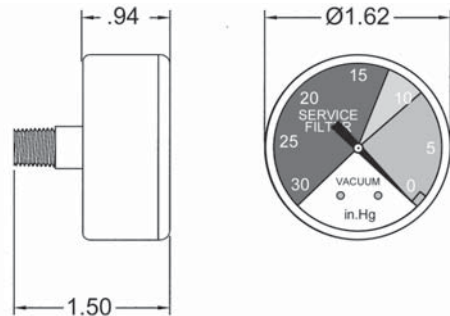
Model DGV-10

Features

- Steel Case
- Phosphor Bronze Bourdon Tube
- Vacuum Range: 30"HG - 0 psi
- 1/8" NPT Bronze Connection
- Polycarbonate Lens
- Dry Gauge
- Center Back & Stem Mounts Available



Installation Data



Ordering Example: Model **DGV-10** Style **A**

| Model | Style |
|---|-----------------------------|
| DGV-10 = 1.5" Vacuum Service Filter Gauge | A = Stem D = Center Back |

Additional pressure ranges and color breaks available with minimum order.



FLUID COMPONENTS, INC.

CDS Series Dry Gauges

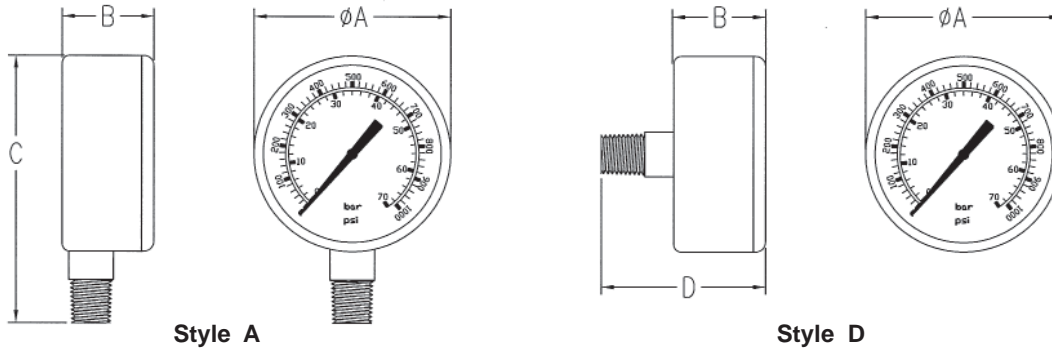
1 1/2" , 2" and 2 1/2" • Stem & Center Back Mounts

Features

- Steel Case
- Phosphor Bronze Bourdon Tube
- Bronze Connection
- Polycarbonate Lens
- Built-in Snubber
- Range: Vacuum to 6,000 psi
- Dual Scale: psi & bar
- Accuracy: ± 1.6% FSD
- Temperature Range: -40° to 180° F
- Certificate of Accuracy Available (see page 14 for details)



Installation Data



| Size | A | B | C | D | Port | Weight | |
|--------|-------|-------|-------|-------|-----------|---------|---------|
| | | | | | | Style A | Style D |
| 1 1/2" | 1.62" | .90" | 2.26" | 1.50" | 1/8" NPT | .10 lbs | .15 lbs |
| 2" | 2.00" | 1.08" | 2.81" | 1.80" | 1/4" NPT* | .20 lbs | .20 lbs |
| 2 1/2" | 2.45" | 1.05" | 3.22" | 1.75" | 1/4" NPT* | .25 lbs | .25 lbs |

* 1/8" NPT available w/ min. order. Add -8N to end of model #.

Ordering Example: CDS - 1 P - 210 D

| Model | Size | Type | Pressure Range | Style |
|--------------------|--|--|--|-----------------------------|
| CDS = Dry Gauge | *4 = 1 1/2" dia. 5 = 2" dia. 1 = 2 1/2" dia. | C = Compound V = Vacuum P = Pressure | 002 = 30" Hg - 30 psi** 000 = 30" Hg - 0 psi 001 = 15 psi 002 = 30 psi 004 = 60 psi 007 = 100 psi 010 = 160 psi 015 = 200 psi 020 = 300 psi 040 = 600 psi | A = Stem D = Center Back |
| | | | 070 = 1000 psi 100 = 1500 psi 140 = 2000 psi 210 = 3000 psi 280 = 4000 psi 350 = 5000 psi 420 = 6000 psi | |

Some size/range combinations may only be available by special order.

* 1 1/2" dia. is limited to 5000 psi

**Additional compound ranges may be available by special order.

Logo and custom gauge faces available with minimum 250 piece order. Call for details.

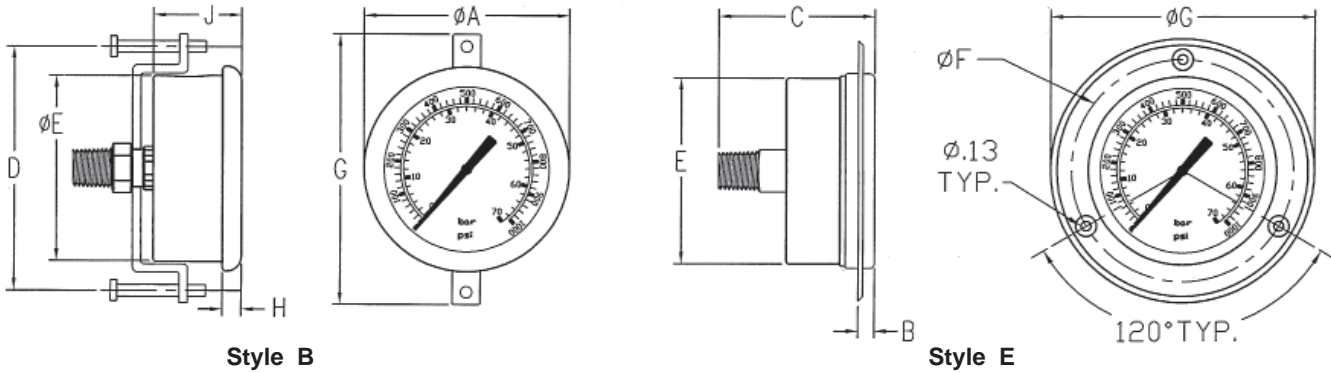
CDS Series Dry Gauges 2" and 2 1/2" • Panel Clamp & Flange Mounts

Features

- Steel Case, Rolled Bezel
- Phosphor Bronze Bourdon Tube
- Bronze Connection
- Polycarbonate Lens
- Built-in Snubber
- Range: Vacuum to 6,000 psi
- Dual Scale: psi & bar
- Accuracy: $\pm 1.6\%$ FSD
- Temperature Range: -40° to 180° F
- Certificate of Accuracy Available (see page 14 for details)



Installation Data



| Size | A | B | C | D | E | F | G | H | J | Port | Weight | |
|--------|-------|------|-------|-------|-------|-------|-------|------|-------|-----------|---------|---------|
| | | | | | | | | | | | Style B | Style E |
| 2" | 2.25" | .20" | 1.75" | 2.28" | 2.05" | 2.45" | 2.80" | .21" | 1.15" | 1/4" NPT* | .30 | .25 |
| 2 1/2" | 2.68" | .20" | 1.75" | 3.14" | 2.40" | 2.85" | 3.29" | .25" | 1.17" | 1/4" NPT* | .40 | .30 |

* 1/8" NPT available w/ min. order. Add -8N to end of model #.

Ordering Example: Model **CDS** - Size **5** Type **P** - Range **210** Style **E**

| Model | Size | Type | Pressure Range | Style |
|--------------------|--------------------------------|--|--|--|
| CDS = Dry Gauge | 5 = 2" dia. 1 = 2 1/2" dia. | C = Compound V = Vacuum P = Pressure | 002 = 30" Hg - 30 psi** 000 = 30" Hg - 0 psi 001 = 15 psi 002 = 30 psi 004 = 60 psi 007 = 100 psi 010 = 160 psi 015 = 200 psi 020 = 300 psi 040 = 600 psi | 070 = 1000 psi 100 = 1500 psi 140 = 2000 psi 210 = 3000 psi 280 = 4000 psi 350 = 5000 psi 420 = 6000 psi |
| | | | | B = Panel Clamp E = Panel Flange |

Some size/range combinations may only be available by special order.

**Additional compound ranges may be available by special order.

Logo and custom gauge faces available with minimum 250 piece order. Call for details.



FLUID COMPONENTS, INC.

CF Series Gauges

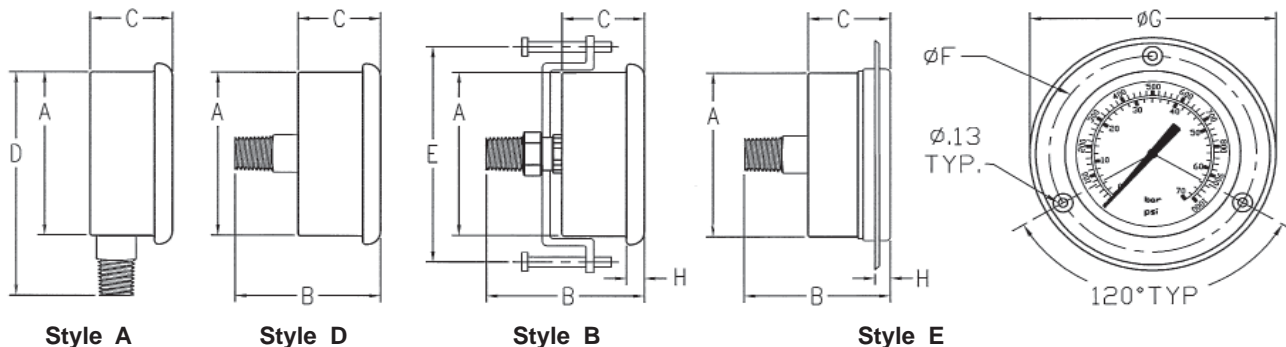
1 1/2", 2" and 2 1/2" • Glycerine-Filled

Features

- 304 Stainless Steel Case & Bezel
- Phosphor Bronze Bourdon Tube
- Bronze Connection
- Polycarbonate Lens
- Built-in Snubber
- Range: Vacuum to 10,000 psi
- Dual Scale: psi & bar
- Accuracy: ± 1.6% FSD
- Temperature Range: -13° to 180°F
- Certificate of Accuracy Available (see page 14 for details)



Installation Data



| Size | A | B | C | D | E | F | G | H | Port | Weight (in lbs) | | | |
|--------|-------|-------|-------|-------|-------|-------|-------|------|-----------|-----------------|---------|---------|---------|
| | | | | | | | | | | Style A | Style B | Style D | Style E |
| 1 1/2" | 1.58" | 1.98" | 1.02" | 2.47" | 2.30" | 2.08" | 2.45" | .20" | 1/8" NPT | .20 | .30 | .25 | .25 |
| 2" | 1.98" | 2.21" | 1.19" | 3.05" | 2.28" | 2.40" | 2.76" | .24" | 1/4" NPT* | .35 | .45 | .40 | .40 |
| 2 1/2" | 2.40" | 2.25" | 1.18" | 3.45" | 3.18" | 2.90" | 3.42" | .25" | 1/4" NPT* | .45 | .55 | .50 | .55 |

*1/8" NPT available w/ min. order. Add -8N to end of model #.

Ordering Example: CF 1 P - 350 A

| Model | Size | Type | Pressure Range | Style |
|------------------|------------------|--------------|-------------------------|------------------|
| CF = | *4 = 1 1/2" dia. | C = Compound | 002 = 30" Hg - 30 psi** | A = Stem |
| Glycerine-filled | 5 = 2" dia. | V = Vacuum | 000 = 30" Hg - 0 psi | B = Panel Clamp |
| Gauge | 1 = 2 1/2" dia. | P = Pressure | 001 = 15 psi | D = Center Back |
| | | | 002 = 30 psi | E = Panel Flange |
| | | | 004 = 60 psi | |
| | | | 007 = 100 psi | |
| | | | 010 = 160 psi | |
| | | | 015 = 200 psi | |
| | | | 020 = 300 psi | |
| | | | 040 = 600 psi | |
| | | | 070 = 1000 psi | |
| | | | 100 = 1500 psi | |
| | | | 140 = 2000 psi | |
| | | | 210 = 3000 psi | |
| | | | 280 = 4000 psi | |
| | | | 350 = 5000 psi | |
| | | | 420 = 6000 psi | |
| | | | 700 = 10,000 psi | |

Some size/range combinations may only be available by special order.

*Note: 1 1/2" dia. is limited to 6000 psi
 **Additional compound ranges may be available by special order.

Logo and custom gauge faces available with minimum 100 piece order. Call for details.

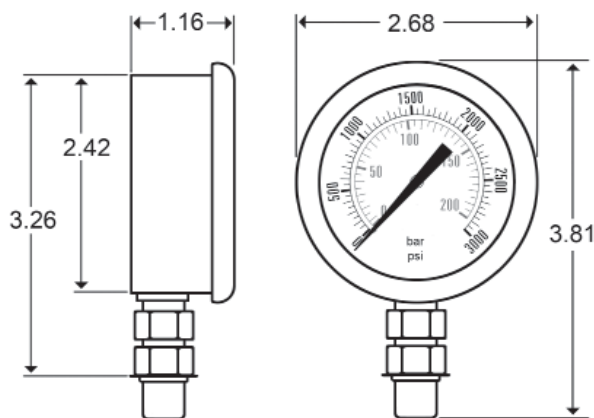
CF Series (SAE) Gauges 2 1/2" • Glycerine-Filled • SAE Swivel Mount

Features

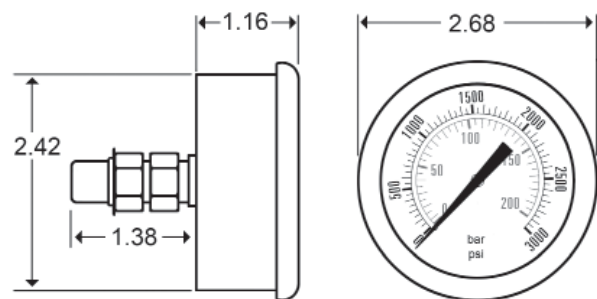
- 304 Stainless Steel Case & Bezel
- Phosphor Bronze Bourdon Tube
- SAE 7/16-20 Bronze Connection
- Polycarbonate Lens
- Built-in Snubber
- Range: Vacuum to 10,000 psi
- Dual Scale: psi & bar
- Accuracy: $\pm 1.6\%$ FSD
- Temperature Range: -13° to 180°F
- Certificate of Accuracy Available
(see page 14 for details)



Installation Data



Style A



Style D

Ordering Example:

Model: **CF** Size: **1** Type: **P** Range: **210** Style: **A** Port Size: **SAE**

| Model | Size | Type | Pressure Range | Style | Port Size |
|-----------------------------------|------------|--|--|------------------------------|-------------|
| CF = Glycerine-filled Gauge | 1 = 2 1/2" | C = Compound V = Vacuum P = Pressure | 002 = 30" Hg - 30 psi** 000 = 30" Hg - 0 psi 001 = 15 psi 070 = 1000 psi 002 = 30 psi 100 = 1500 psi 004 = 60 psi 140 = 2000 psi 007 = 100 psi 210 = 3000 psi 010 = 160 psi 280 = 4000 psi 015 = 200 psi 350 = 5000 psi 020 = 300 psi 420 = 6000 psi 040 = 600 psi 700 = 10,000 psi | A = Stem D = Center Back* | 7/16-20 SAE |

*Special order - minimum quantities may apply.

*Additional compound ranges may be available by special order.

Logo and custom gauge faces available with minimum 100 piece order. Call for details.



FLUID COMPONENTS, INC.

PDLC Series Gauges

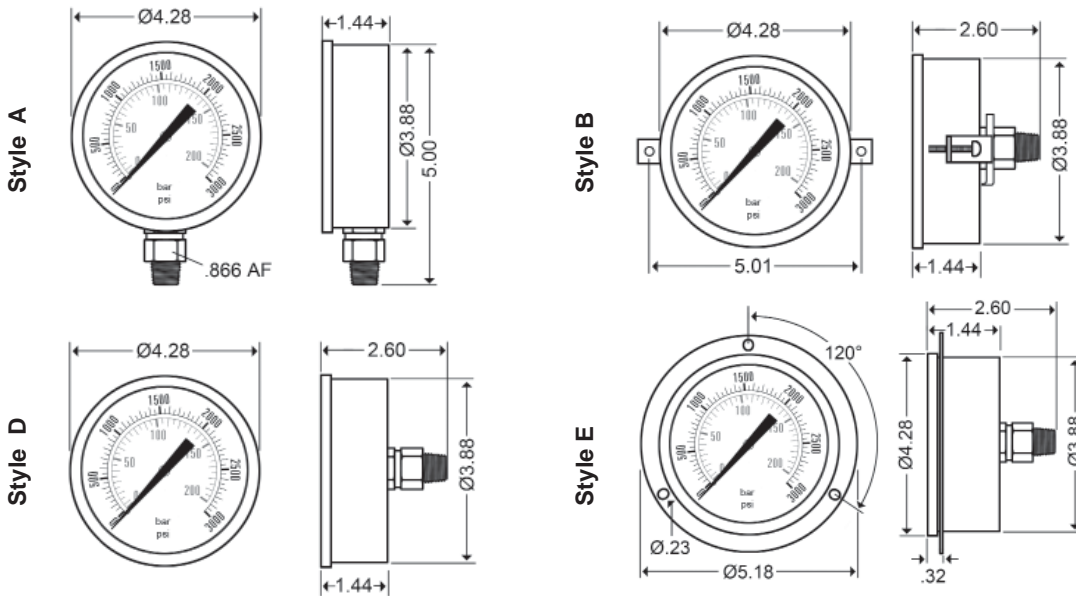
4" • Low-Cost Glycerine-Filled Gauges

Features

- 304 Stainless Steel Case & Bezel
- Phosphor Bronze Bourdon Tube
- Bronze 1/4" NPT Connection
- Polycarbonate Lens
- Built-in Snubber
- Range: 15 psi to 10,000 psi
- Dual Scale: psi & bar
- Accuracy: ± 2% FSD
- Temperature Range: -13° to 180°F
- Certificate of Accuracy Available
(see page 14 for details)



Installation Data



1/4" NPT is standard connection for all PDLC gauges.

| Weight (in lbs) | | | |
|-----------------|---------|---------|---------|
| Style A | Style B | Style D | Style E |
| 1.20 | 1.45 | 1.25 | 1.30 |

Ordering Example:

| | | | | |
|-------------|----------|----------|------------|----------|
| Model | Size | Type | Range | Style |
| PDLC | 2 | P | 070 | A |

| Model | Size | Type | Pressure Range | Style | |
|---|-------------|--------------|---|--|--|
| PDLC = Low cost, glycerine-filled 4" gauge | 2 = 4" dia. | P = Pressure | 001 = 15 psi 002 = 30 psi 004 = 60 psi 007 = 100 psi 010 = 160 psi 015 = 200 psi 020 = 300 psi 040 = 600 psi | 070 = 1000 psi 100 = 1500 psi 140 = 2000 psi 210 = 3000 psi 280 = 4000 psi 350 = 5000 psi 420 = 6000 psi 700 = 10,000 psi | A = Stem B = Panel Clamp D = Center Back E = Panel Flange |

*Some pressure range / mount configurations may require special order.

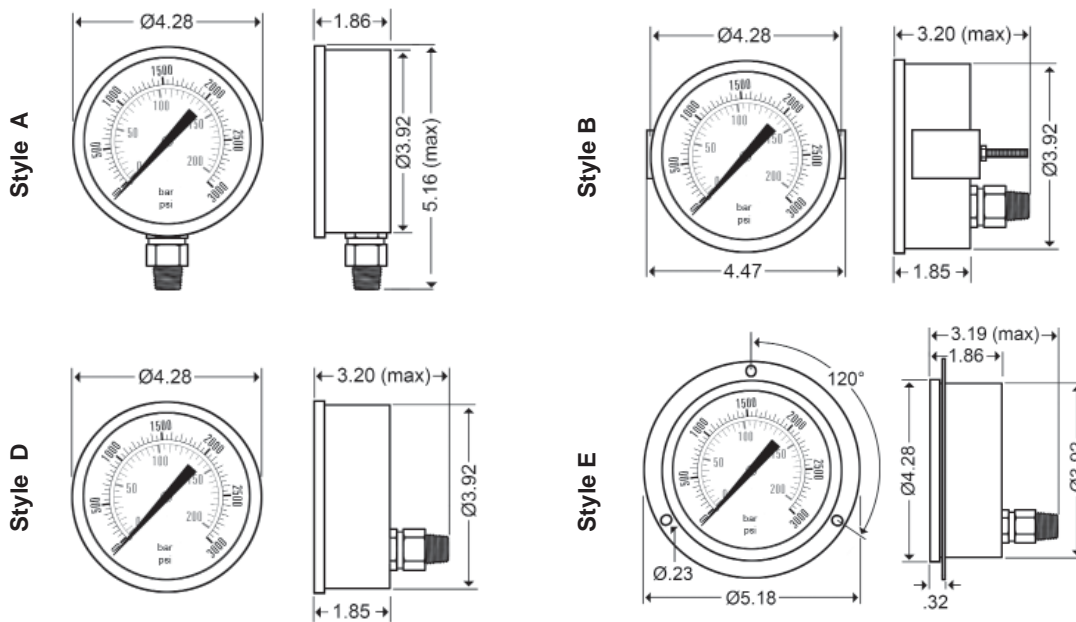
CFC Series Gauges 4" • Glycerine-Filled Gauges

Features

- 304 Stainless Steel Case & Bezel
- Phosphor Bronze Bourdon Tube
- Bronze connection
- Polycarbonate Lens
- Built-in Snubber
- Range: Vacuum to 10,000 psi
- Dual Scale: psi & bar
- Accuracy: $\pm 1\%$ FSD
- Temperature Range: -13° to 180°F
- Certificate of Accuracy Available
(see page 14 for details)



Installation Data



1/4" NPT is standard connection for 600 psi and below;
1/2" NPT is standard for 1000 psi and above

| Weight (in lbs) | | | |
|-----------------|---------|---------|---------|
| Style A | Style B | Style D | Style E |
| 1.55 | 1.75 | 1.65 | 1.70 |

Ordering Example:

| Model | Size | Type | Range | Style |
|------------|----------|----------|--------------|----------|
| CFC | 2 | P | - 350 | A |

| Model | Size | Type | Pressure Range | Style |
|---------------------------------------|-------------|--|--|---|
| CFC = Glycerine-filled 4" Gauge | 2 = 4" dia. | C = Compound V = Vacuum P = Pressure | 002 = 30" Hg - 30 psi** 000 = 30" Hg - 0 psi 001 = 15 psi 002 = 30 psi 004 = 60 psi 007 = 100 psi 010 = 160 psi 015 = 200 psi 020 = 300 psi 040 = 600 psi 070 = 1000 psi 100 = 1500 psi 140 = 2000 psi 210 = 3000 psi 280 = 4000 psi 350 = 5000 psi 420 = 6000 psi 700 = 10,000 psi | A = Stem B = Panel Clamp D = Lower Back E = Panel Flange |

**Additional compound ranges may be available by special order.



FLUID COMPONENTS, INC.

PDSS Series Gauges

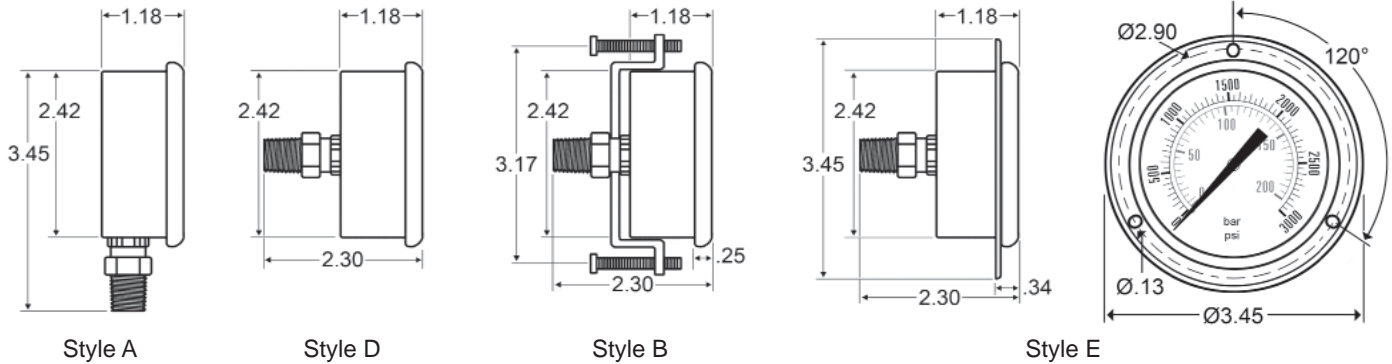
2 1/2" • All Stainless Steel Gauges

Features

- 304 Stainless Steel Case
- 316 Stainless Steel Connection
- 316 Stainless Steel Bourdon Tube
- Built-in Snubber
- Polycarbonate Lens
- Liquid-Filled & Dry Options
- Ambient Temp: -13° F to 150°F
- Max. Process Temp: 750°F
- Range: Vacuum to 15,000 psi
- Dual Scale: psi & bar
- Accuracy: ± 1.6% FSD
- Certificate of Accuracy Available (see page 14 for details)



Installation Data



| Weight (in lbs) | | | |
|-----------------|---------|---------|---------|
| Style A | Style B | Style D | Style E |
| .45 | .55 | .50 | .55 |

1/4" NPT is the standard connection for all 2 1/2" PDSS gauges.

Ordering Example: Model **PDSS** - Size **1** Type **P** - Range **040** Style **A** - Options **001**

| Model | Size | Type | Pressure Range | Style | Options |
|---|-----------------|--|---|--|--------------------------------------|
| PDSS = All Stainless Steel Gauges | 1 = 2 1/2" dia. | C = Compound V = Vacuum P = Pressure | 002 = 30" Hg -30 psi** 000 = 30" Hg - 0 psi 001 = 15 psi 002 = 30 psi 004 = 60 psi 007 = 100 psi 010 = 160 psi 015 = 200 psi 020 = 300 psi 040 = 600 psi 070 = 1000 psi | A = Stem B = Panel Clamp D = Center Back E = Panel Flange | 001 = Glycerine-filled 002 = Dry* |

* Special Order

**Additional compound ranges may be available by special order.

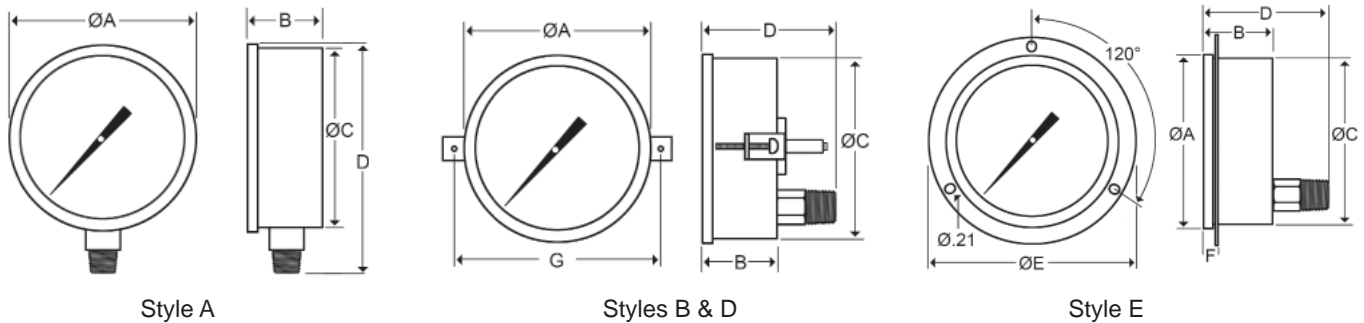
PDSS Series Gauges 4" • All Stainless Steel Gauges

Features

- 304 Stainless Steel Case
- 316 Stainless Steel Connection
- 316 Stainless Steel Bourdon Tube
- Built-in Snubber
- Polycarbonate Lens
- Liquid-Filled & Dry Options
- Range: Vacuum to 30,000 psi
- Single Scale: psi
- Ambient Temp: -13° F to 150°F
- Max. Process Temp: 750°F
- Accuracy: ± 1% FSD
- Certificate of Accuracy Available
(see page 14 for details)



Installation Data



| Style | A | B | C | D* | E | F | G | Weight |
|------------------|-------|-------|-------|--------------------------------------|-------|------|-------|--------|
| A - Stem | 4.28" | 1.84" | 3.87" | 5.30" (1/4" NPT) 5.36" (1/2" NPT) | - | - | - | 1.55 |
| B - Panel Clamp | 4.28" | 1.87" | 3.87" | 3.10" (1/4" NPT) 3.20" (1/2" NPT) | - | - | 5.00" | 1.75 |
| D - Lower Back | 4.28" | 1.87" | 3.87" | 3.10" (1/4" NPT) 3.20" (1/2" NPT) | - | - | - | 1.65 |
| E - Panel Flange | 4.28" | 1.87" | 3.87" | 3.10" (1/4" NPT) 3.20" (1/2" NPT) | 5.13" | .27" | - | 1.70 |

*1/4" NPT is standard connection for 600 psi and below; 1/2" NPT is standard for 1000 psi and above

Ordering Example: **Model** PDSS - **Size** 2 - **Type** P - **Range** 070 - **Style** D - **Options** 001

| Model | Size | Type | Pressure Range | Style | Options |
|---|-------------|--|---|---|--------------------------------------|
| PDSS = All Stainless Steel Gauges | 2 = 4" dia. | C = Compound V = Vacuum P = Pressure | 002 = 30" Hg -30 psi** 000 = 30" Hg - 0 psi 001 = 15 psi 100 = 1500 psi 002 = 30 psi 140 = 2000 psi 004 = 60 psi 210 = 3000 psi 007 = 100 psi 280 = 4000 psi 010 = 160 psi 350 = 5000 psi 015 = 200 psi 420 = 6000 psi 020 = 300 psi 700 = 10,000 psi 040 = 600 psi 800 = 15,000 psi 070 = 1000 psi 900 = 20,000 psi 950 = 30,000 psi | A = Stem B = Panel Clamp D = Lower Back E = Panel Flange | 001 = Glycerine-filled 002* = Dry |

* Special Order

**Additional compound ranges may be available by special order.



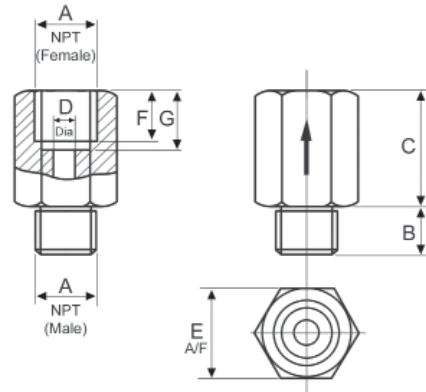
FLUID COMPONENTS, INC.

Pressure Gauge Accessories

Gauge Snubbers

By fitting with a snubber, a pressure gauge is protected from harmful pressure surges and pulsations which would otherwise overload the gauge mechanism.

The 1/4" NPT snubber has a helically formed oilway with a small orifice through which fluid must pass to reach the gauge. This provides high resistance to smooth out surges and pulses, yet allows rapid responses and steady gauge readings.



| Model # | A | B | C | D | E | F | G | Material | Rated Pressure | Weight |
|-------------|----------|------|------|------|------|------|------|----------|----------------|---------|
| PDD-4B | 1/4" NPT | .52" | .94" | .20" | .71" | .43" | .55" | Brass | 10,000 psi | .15 lbs |
| PDD-4-04SAE | 04-SAE | .52" | .94" | .20" | .71" | .43" | .55" | Steel | 10,000 psi | .10 lbs |

Gauge Protectors

Dynamic recommends the use of our Buna N rubber housing gauge protector on our standard 2 1/2" stem mount & center back mount gauges (style "A" or "D"). This saves damage to the gauge should it be dropped or bumped.
Weight: 0.10 lbs

Order by Model #: GP-40N

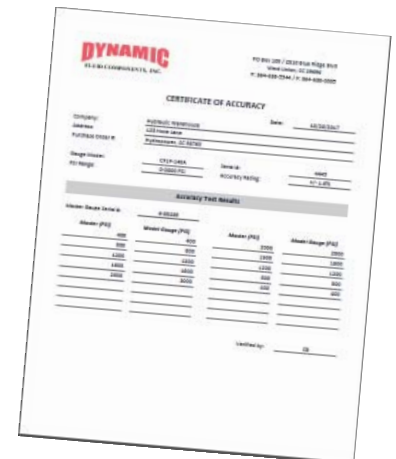


Certificate of Accuracy

Dynamic offers in-house generated certificates of accuracy for all gauges up to 10,000 psi. Gauges are tested against a calibrated PDTG Test Gauge with .6% accuracy and the pressure of both gauges is documented at predetermined increments from 0 psi to maximum pressure then back to 0 psi. Customers are provided with a certificate documenting all pressure readings, as well as the serial number which matches the gauge tested.

Certificates of Accuracy produced at Dynamic Fluid Components do not conform with ANSI or NIST standards. Should this additional level certification be required, the customer would need to obtain it independently from a third-party source.

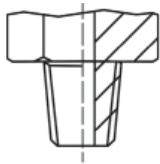
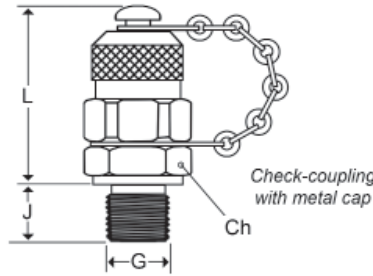
To order, add "Certificate of Accuracy" as a separate line item.
There is a set fee per gauge for these certificates.



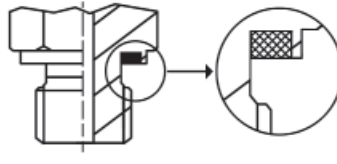
D1620 Series - M16 x 2.0 Test Point Plugs

Features

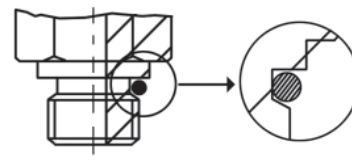
- Connects Under Full Pressure
- Rated at 9000 psi
- All Steel Construction
- Buna Seals are Standard



Form C



Form E



Form F

| Model # | Form | Max. Pressure | Ch. | J | G | Weight |
|------------------|------|---------------|------|------|-----------|---------|
| D1620-01-18NPT | C | 5800 psi | .67" | .37" | 1/8" NPT | .15 lbs |
| D1620-01-14NPT | C | 9000 psi | .67" | .55" | 1/4" NPT | .15 lbs |
| D1620-01-04SAE | F | 9000 psi | .67" | .43" | 04-SAE | .15 lbs |
| D1620-01-06SAE | F | 9000 psi | .75" | .47" | 06-SAE | .15 lbs |
| D1620-01-08SAE | F | 9000 psi | .87" | .55" | 08-SAE | .15 lbs |
| D1620-01-M10X1 | E | 9000 psi | .67" | .33" | M10X1 | .15 lbs |
| D1620-01-M12x1.5 | E | 9000 psi | .67" | .47" | M12x1.5 | .15 lbs |
| D1620-01-M14x1.5 | E | 9000 psi | .75" | .47" | M14x1.5 | .15 lbs |
| D1620-01-M16x1.5 | E | 9000 psi | .87" | .47" | M16x1.5 | .15 lbs |
| D1620-01-18BSPP | E | 9000 psi | .67" | .32" | 1/8" BSPP | .15 lbs |
| D1620-01-14BSPP | E | 9000 psi | .75" | .47" | 1/4" BSPP | .15 lbs |
| D1620-01-38BSPP | E | 9000 psi | .87" | .47" | 3/8" BSPP | .15 lbs |

DGA1620 Series - M16 x 2.0

Test Point Probe



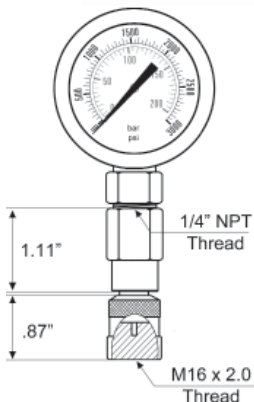
DGA1620 Test Point Probes are designed to connect directly to the D1620 Test Point Plugs (above). When fitted with the desired pressure gauge, the system pressure is released into the gauge's bourdon tube as the probe opens the test point valve. It can be connected and disconnected under pressure. This provides a precise means to monitor system pressure without turning the system off. Weight: 0.15 lbs

Model #: DGA1620 Test Point Probe*

Gauge Protectors

Dynamic recommends the use of a gauge protector Buna N rubber housing when using a test point probe. This saves damage to the gauge should it be dropped or bumped during the test proceedings. Gauge Protectors can be ordered using model #: GP-40N. See page 15.

*Test Point Probe does not include gauge.





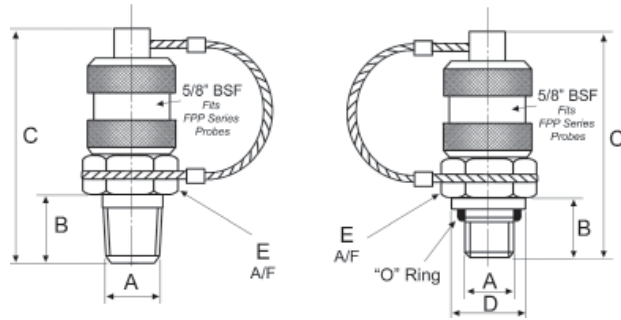
FLUID COMPONENTS, INC.

FTP Series Test Point Plugs

Features

- Dynamic Special Design
- Rated at 6000 psi
- Buna Seals are Standard
- Connects Under Full Pressure
- All Steel Construction

Dynamic test point plugs and probes are designed to monitor hydraulic system conditions without system shutdown to connect the pressure gauge. These test plugs are fitted as a “standard” into the mobile or industrial application where eventual system monitoring is required.



Model #'s and Dimensional Information

| Model # | A Thread | B | C | D | E | Max. Torque | Weight | Seal Kits Buna-N* Viton* |
|---------|-------------|------|-------|------|------|-------------|---------|-----------------------------|
| FTP-02N | 1/8" NPT | .39" | 1.81" | -- | .75" | 180 lbs | .15 lbs | SK-115-N SK-115 |
| FTP-04N | 1/4" NPT | .56" | 1.87" | -- | .82" | 180 lbs | .17 lbs | SK-115-N SK-115 |
| FTP-04S | 7/16-20 SAE | .36" | 1.81" | .71" | .75" | 180 lbs | .17 lbs | SK-115-N SK-115 |

*Special Order Only



FPP Series Test Point Probe

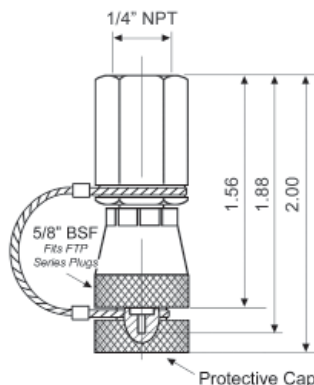
FPP Test Point Probes are designed to connect directly to the FTP Test Point Plugs (above). When fitted with the desired pressure gauge, the system pressure is released into the gauge's bourdon tube as the probe opens the test point valve. It can be connected and disconnected under pressure. This provides a precise means to monitor system pressure without turning the system off. Weight: 0.15 lbs

Model #: FPP-04N

For complete model with a liquid-filled gauge, add the gauge model # to the probe model # (i.e. FPP-04N-CF1P-210A is a plug assembly fitted with a 2 1/2", 0-3000 psi stem mount gauge). See page 8 for 2 1/2" pressure gauge data.

Gauge Protectors

Dynamic recommends the use of a gauge protector Buna N rubber housing when using a test point probe. This saves damage to the gauge should it be dropped or bumped during testing. Gauge Protectors can be ordered using model #: GP-40N. See page 14.

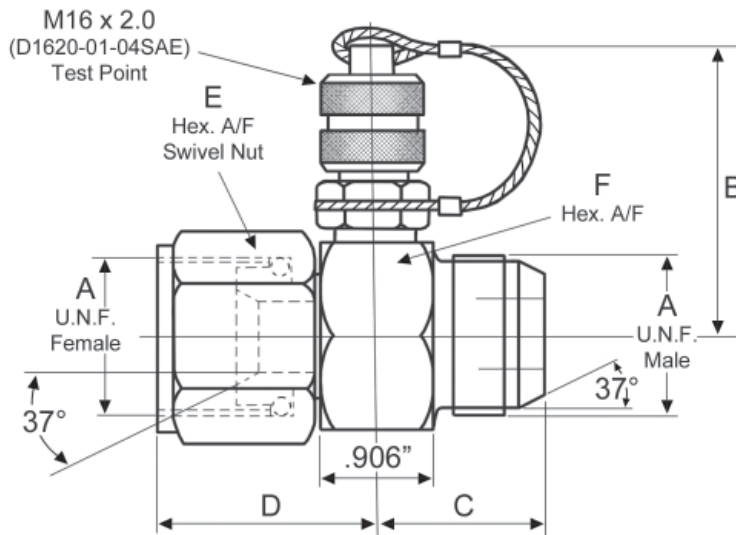


Features

- 6,000 psi Working Pressure
- Fitted with Hydra-Test Point Plug
- Can be Used With Direct or Remote Test Probes
- For J.I.C. 37° Hose Sizes: 7/16" - 1 7/8" UNF
- Can be Connected and Disconnected at Full System Pressure

Install Hydra-Test J.I.C. Hose Couplings between the female swivel nut of the flexible hose and the fixed male connection. The integrated test point may be used with Dynamic test probes and/or test kits to obtain random pressure and temperature checks during servicing or fault finding. Fluid sampling probes are also compatible.

All probes may be connected and disconnected at full pressure without fluid loss or ingress of dirt.



Model #'s and Dimensional Information

| Model # | A | B | C | D | E | F | Weight | Seal Kit | |
|------------|----------------|-------|-------|-------|-------|-------|----------|----------|---------|
| | | | | | | | | Nitrile* | Viton* |
| HSP1040-4 | 7/16"-20 UNF | 2.01" | 1.00" | 1.22" | .56" | 1.12" | .30 lbs | SK114N* | SK114V* |
| HSP1040-5 | 1/2"-20 UNF | 2.01" | 1.00" | 1.30" | .62" | 1.12" | .45 lbs | | |
| HSP1040-6 | 9/16"-20 UNF | 2.01" | 1.01" | 1.36" | .69" | 1.12" | .30 lbs | | |
| HSP1040-8 | 3/4"-16 UNF | 2.01" | 1.11" | 1.33" | .87" | 1.12" | .35 lbs | | |
| HSP1040-10 | 7/8"-14 UNF | 2.14" | 1.23" | 1.51" | 1.00" | 1.37" | .45 lbs | | |
| HSP1040-12 | 1 1/16"-12 UNF | 2.14" | 1.31" | 1.64" | 1.25" | 1.37" | .55 lbs | | |
| HSP1040-16 | 1 5/16"-12 UNF | 2.30" | 1.36" | 1.72" | 1.50" | 1.69" | .80 lbs | | |
| HSP1040-20 | 1 5/8"-12 UNF | 2.61" | 0.96" | 1.77" | 2.05" | 2.00" | 1.25 lbs | | |
| HSP1040-24 | 1 7/8"-12 UNF | 2.98" | 1.08" | 1.89" | 2.20" | 2.22" | 1.60 lbs | | |

*Special Order Only



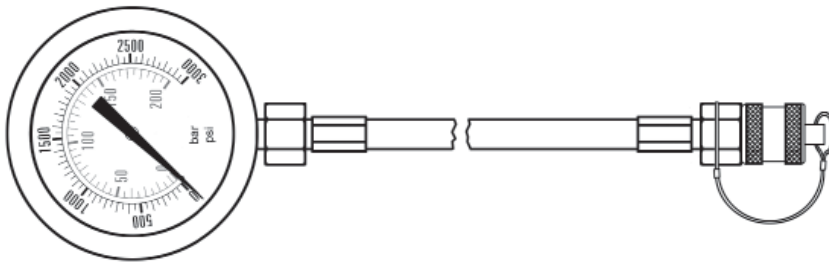
FLUID COMPONENTS, INC.

Hydra-Test J.I.C.

Hose Assemblies

Dynamic hose assemblies are designed for use with Dynamic test plugs, pipe couplings and standpipe adaptors. Together, they facilitate pressure readings on a random basis throughout a hydraulic system. Probes may be connected or disconnected with the system at full working pressure without loss of oil or ingress of dirt. Use of test points saves the installation of multiple pipework and gauges. Hose assemblies are also available fitted with a pressure gauge.

Test Hose OD: 5mm / ID: 2mm
 Maximum Hose Pressure: 9000 psi



| Standard Hose Lengths | | |
|-----------------------|-----|-----|
| 12" | 24" | 36" |
| 48" | 60" | 72" |

Please specify in inches if other lengths are required. Minimum length is 12".

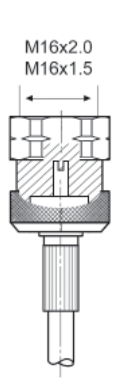
Ordering Example: Model **DHA** - End Fitting **FTP** - Length **12** - End Fitting **4F**

| Model | End Fitting | Hose Length | End Fitting |
|-----------------------------|------------------------|------------------|------------------------|
| DHA = Dynamic Hose Assembly | See codes on next page | Length in inches | See codes on next page |

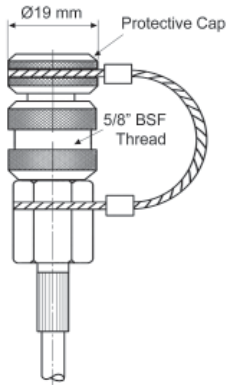
Note: If you require a gauge assembled to the hose assembly, please add the gauge number to the end of the part number.

Hydra-Test End Fittings

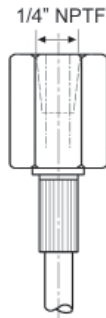
- Optional End Fittings
- Up to 9000 psi Working Pressure
- Choice of Hose Lengths
- Passivated Steel Components



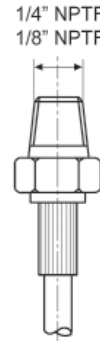
Code HSP
Connects to
D1620 test points
Code HSP1.5



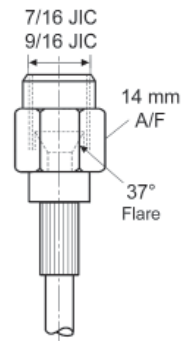
Code FTP
Connects to
FTP test points



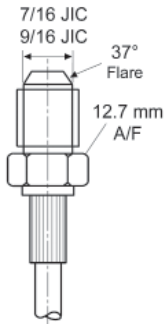
Code 4F



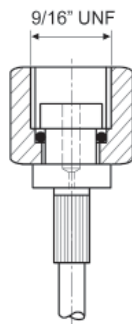
Code 4M
Code 2M



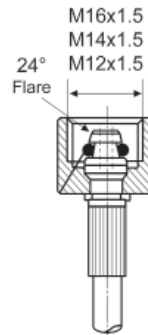
Code 7/16F
Code 9/16F



Code 7/16M
Code 9/16M

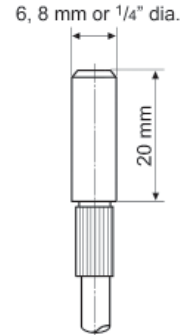


Code 9/16C

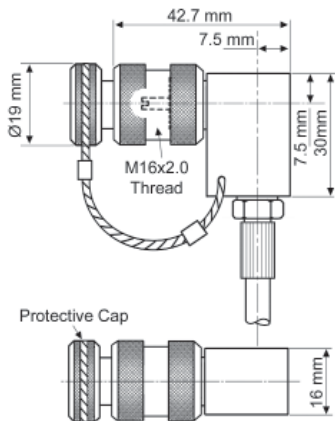


Heavy
Code M16H
Code M14H
Code M12H

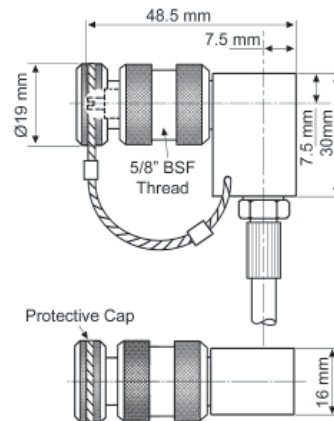
Light
Code M16L
Code M14L
Code M12L



Code 6MSP
Code 8MSP
Code 4MSP



Code HSP90



Code FTP90



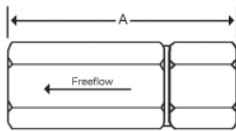
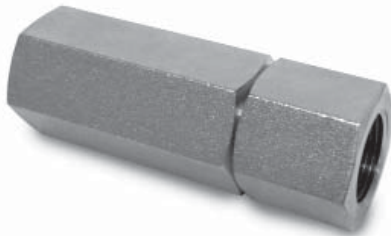
FLUID COMPONENTS, INC.

HSP & VU Series Check Valves

Model HSP - Hard Seat

Features

- Carbon Steel Construction
- 5 lb or 65 lb Cracking Pressure
- Metal to Metal Seal



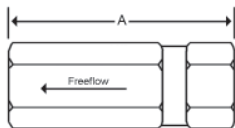
Model #'s & Dimensional Information

| Model # | Thread Size | A | B | Rated Flow (gpm) | Rated Pressure (psi) | Weight (lbs) |
|---------------------|----------------|-------|-------|------------------|----------------------|--------------|
| HSP-1000-2-5 or 65 | 1/4" NPT | 2.44" | .87" | 6 | 5000 | .35 |
| HSP-1000-3-5 or 65 | 3/8" NPT | 2.87" | 1.00" | 10 | 5000 | .44 |
| HSP-1000-4-5 or 65 | 1/2" NPT | 3.76" | 1.26" | 18 | 5000 | .77 |
| HSP-1000-6-5 or 65 | 3/4" NPT | 4.30" | 1.50" | 30 | 5000 | 1.54 |
| HSP-1000-8-5 or 65 | 1" NPT | 5.12" | 1.69" | 36 | 5000 | 2.43 |
| HSP-1000-10-5 or 65 | 1 1/4" NPT | 5.56" | 2.40" | 50 | 3000 | 6.95 |
| HSP-1000-12-5 or 65 | 1 1/2" NPT | 5.56" | 2.56" | 60 | 3000 | 7.28 |
| HSP-1001-4-5 or 65 | 7/16"-20 SAE | 2.56" | .87" | 6 | 5000 | .35 |
| HSP-1001-6-5 or 65 | 9/16"-20 SAE | 2.91" | .94" | 10 | 5000 | .44 |
| HSP-1001-8-5 or 65 | 3/4"-16 SAE | 3.74" | 1.18" | 18 | 5000 | .77 |
| HSP-1001-10-5 or 65 | 7/8"-14 SAE | 3.75" | 1.26" | 24 | 4500 | 1.00 |
| HSP-1001-12-5 or 65 | 1 1/16"-12 SAE | 4.29" | 1.42" | 30 | 3000 | 1.54 |
| HSP-1001-16-5 or 65 | 1 5/16"-12 SAE | 5.00" | 1.81" | 36 | 3000 | 2.43 |
| HSP-1001-20-5 or 65 | 1 5/8"-12 SAE | 5.20" | 2.41" | 50 | 3000 | 6.95 |
| HSP-1001-24-5 or 65 | 1 7/8"-12 SAE | 5.20" | 2.56" | 60 | 3000 | 7.28 |

Model VU - Soft Seat

Features

- Carbon Steel Construction
- 7 lb or 70 lb Cracking Pressure
- Buna-N Seal



Model #'s & Dimensional Information

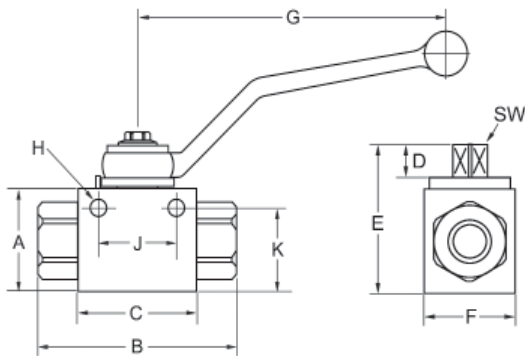
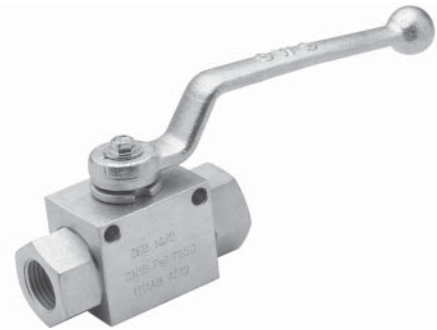
| Model # | Thread Size | A | B | Rated Flow (gpm) | Rated Pressure (psi) | Weight (lbs) |
|---------------|-------------|-------|-------|------------------|----------------------|--------------|
| VU14F-7 or 70 | 1/4" NPT | 2.83" | .87" | 10.6 | 10,000 | .35 |
| VU38F-7 or 70 | 3/8" NPT | 3.30" | 1.03" | 13.2 | 10,000 | .44 |
| VU12F-7 or 70 | 1/2" NPT | 3.78" | 1.18" | 18.5 | 7,250 | .77 |
| VU34F-7 or 70 | 3/4" NPT | 4.28" | 1.50" | 26.4 | 7,250 | 1.54 |
| VU1F-7 or 70 | 1" NPT | 4.96" | 1.81" | 39.6 | 7,250 | 2.43 |

Features

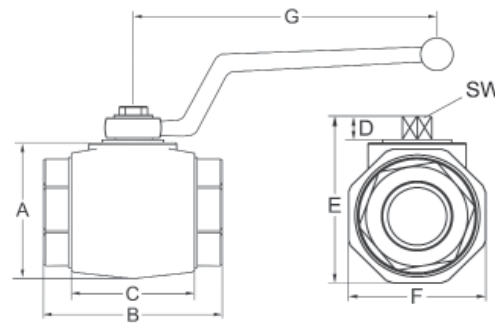
- Mounting Holes on DE models
- 1/4" - 2" Sizes - NPT and SAE
- Full and Reduced Port
- Blow-Out Proof Stems
- Max Pressure: Up to 7250 psi
- Max Temperature: 215°F

Materials

- Carbon Steel Construction
- Standard Seals: Buna-N;
Seat: POM; Stem: Teflon;
other seals by special order
- Chrome-plated Steel Ball



DE Model



DB Model

Model #'s & Dimensional Information

| Model # | Thread | psi | Port | A | B | C | D | E | F | G | H | J | K | SW | Weight |
|-------------------------------------|------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|---------|
| DE2-14NPT | 1/4" NPT | 7250 | .24 | 1.27 | 2.71 | 1.45 | .37 | 1.75 | 1.10 | 4.51 | .18 | 1.03 | 1.05 | .32 | 1.0 lb |
| DE2-38NPT | 3/8" NPT | 7250 | .39 | 1.58 | 2.84 | 1.65 | .41 | 2.08 | 1.27 | 4.51 | .26 | 1.24 | 1.38 | .32 | 1.5 lb |
| DE2-12NPT | 1/2" NPT | 7250 | .51 | 1.58 | 3.27 | 1.90 | .41 | 2.08 | 1.39 | 4.51 | .26 | 1.46 | 1.38 | .32 | 1.5 lb |
| DE2-34NPT | 3/4" NPT | 5800 | .79 | 2.25 | 3.74 | 2.36 | .55 | 2.97 | 1.90 | 6.38 | .26 | 1.76 | 1.99 | .39 | 3.5 lb |
| DE2-1-NPT | 1" NPT | 5000 | .98 | 2.53 | 4.45 | 2.56 | .55 | 3.25 | 2.25 | 6.38 | .26 | 2.17 | 2.29 | .39 | 5.0 lb |
| DE2-114R-NPT <i>Reduced Port</i> | 1 1/4" NPT | 5000 | .98 | 2.53 | 4.73 | 2.56 | .55 | 3.25 | 2.37 | 6.38 | .26 | 2.17 | 2.29 | .39 | 5.5 lb |
| DE2-112R-NPT <i>Reduced Port</i> | 1 1/2" NPT | 5000 | .98 | 2.53 | 4.85 | 2.56 | .55 | 3.25 | 2.37 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.0 lb |
| DB2-114-NPT | 1 1/4" NPT | 5000 | 1.26 | 3.43 | 4.72 | 3.31 | .63 | 4.26 | 3.22 | 9.00 | - | - | - | .51 | 9.0 lb |
| DB2-112-NPT | 1 1/2" NPT | 5000 | 1.57 | 3.92 | 5.13 | 3.58 | .63 | 5.01 | 3.66 | 9.00 | - | - | - | .51 | 11.5 lb |
| DB2-2-NPT | 2" NPT | 5000 | 1.97 | 4.52 | 5.52 | 3.94 | .63 | 5.33 | 4.31 | 9.00 | - | - | - | .51 | 15.5 lb |

| Model # | Thread | psi | Port | A | B | C | D | E | F | G | H | J | K | SW | Weight |
|------------------------------------|------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|---------|
| DE2-04-SAE | 7/16"-20 | 7250 | .24 | 1.27 | 2.71 | 1.45 | .37 | 1.75 | 1.10 | 4.51 | .18 | 1.03 | 1.05 | .32 | 1.0 lb |
| DE2-06-SAE | 9/16"-18 | 7250 | .39 | 1.58 | 2.84 | 1.65 | .41 | 2.08 | 1.27 | 4.51 | .26 | 1.24 | 1.38 | .32 | 1.5 lb |
| DE2-08-SAE | 3/4"-16 | 7250 | .51 | 1.58 | 3.27 | 1.90 | .41 | 2.08 | 1.39 | 4.51 | .26 | 1.46 | 1.38 | .32 | 1.5 lb |
| DE2-12-SAE | 1 1/16"-12 | 5800 | .79 | 2.25 | 3.74 | 2.36 | .55 | 2.97 | 1.90 | 6.38 | .26 | 1.76 | 1.99 | .39 | 3.5 lb |
| DE2-16-SAE | 1 5/16"-12 | 5000 | .98 | 2.53 | 4.45 | 2.56 | .55 | 3.25 | 2.25 | 6.38 | .26 | 2.17 | 2.29 | .39 | 5.0 lb |
| DE2-20R-SAE <i>Reduced Port</i> | 1 5/8"-12 | 5000 | .98 | 2.53 | 4.73 | 2.56 | .55 | 3.25 | 2.37 | 6.38 | .26 | 2.17 | 2.29 | .39 | 5.5 lb |
| DE2-24R-SAE <i>Reduced Port</i> | 1 7/8"-12 | 5000 | .98 | 2.53 | 4.85 | 2.56 | .55 | 3.25 | 2.37 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.0 lb |
| DB2-20-SAE | 1 5/8"-12 | 5000 | 1.26 | 3.43 | 4.72 | 3.31 | .63 | 4.26 | 3.22 | 9.00 | - | - | - | .51 | 9.0 lb |
| DB2-24-SAE | 1 7/8"-12 | 5000 | 1.57 | 3.92 | 5.13 | 3.58 | .63 | 5.01 | 3.66 | 9.00 | - | - | - | .51 | 11.5 lb |
| DB2-32-SAE | 2 1/2"-12 | 5000 | 1.97 | 4.52 | 5.52 | 3.94 | .63 | 5.33 | 4.31 | 9.00 | - | - | - | .51 | 15.5 lb |



FLUID COMPONENTS, INC.

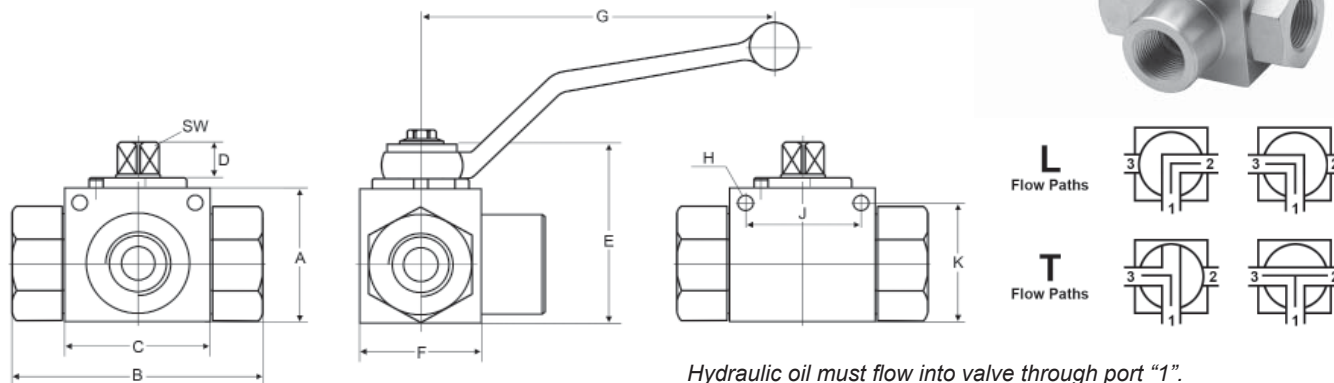
DE3L/DB3L High Pressure Series 3-way Ball Valves

Features

- Mounting Holes on DE models
- 1/4" - 2" Sizes - NPT and SAE
- Full and Reduced Port
- Blow-Out Proof Stems
- Max Pressure: Up to 5880 psi
- Max Temperature: 215°F

Materials

- Carbon Steel Construction
- Standard Seals: Buna-N; Seat: POM; Stem: Teflon; other seals by special order
- Chrome-plated Steel Ball



Hydraulic oil must flow into valve through port "1".
The valve can only be sealed under one of two conditions:
1) Pressure at the closed port is zero;
2) Pressure at the closed port is lower than at the two open ports.

Model #'s & Dimensional Information

| Model # | Thread | psi | Port | A | B | C | D | E | F | G | H | J | K | SW | Weight |
|--------------------------------------|------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|----------|
| DE3L-14-NPT | 1/4" NPT | 5880 | .24 | 1.27 | 2.72 | 1.46 | .38 | 1.78 | 1.11 | 4.51 | .18 | 1.02 | 1.07 | .32 | 1.0 lb |
| DE3L-38-NPT | 3/8" NPT | 5880 | .39 | 1.58 | 2.84 | 1.65 | .38 | 2.08 | 1.26 | 4.51 | .26 | 1.23 | 1.38 | .32 | 1.5 lbs |
| DE3L-12-NPT | 1/2" NPT | 5145 | .51 | 1.58 | 2.28 | 1.90 | .38 | 2.08 | 1.37 | 4.51 | .26 | 1.46 | 1.38 | .32 | 2.0 lbs |
| DE3L-34-NPT | 3/4" NPT | 5145 | .79 | 2.27 | 3.74 | 2.36 | .55 | 2.97 | 1.89 | 6.38 | .26 | 1.77 | 2.01 | .39 | 4.0 lbs |
| DE3L-1-NPT | 1" NPT | 5145 | .98 | 2.52 | 4.45 | 2.56 | .55 | 3.25 | 2.24 | 6.38 | .26 | 2.17 | 2.27 | .39 | 5.5 lbs |
| DE3L-114R-NPT <i>Reduced Port</i> | 1 1/4" NPT | 4500 | .98 | 2.53 | 4.72 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.0 lbs |
| DE3L-112R-NPT <i>Reduced Port</i> | 1 1/2" NPT | 4500 | .98 | 2.53 | 4.84 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.5 lbs |
| DB3L-114-NPT | 1 1/4" NPT | 4500 | 1.26 | 3.31 | 4.73 | 3.31 | .67 | 4.14 | 2.96 | 9.00 | - | - | - | .51 | 10.5 lbs |
| DB3L-112-NPT | 1 1/2" NPT | 4500 | 1.57 | 3.74 | 5.14 | 3.59 | .67 | 4.61 | 3.35 | 9.00 | - | - | - | .51 | 14.0 lbs |
| DB3L-2-NPT | 2" NPT | 4500 | 1.97 | 4.43 | 5.51 | 3.94 | .67 | 5.18 | 4.14 | 9.00 | - | - | - | .51 | 20.0 lbs |

| Model # | Thread | psi | Port | A | B | C | D | E | F | G | H | J | K | SW | Weight |
|-------------------------------------|------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|----------|
| DE3L-04 SAE | 7/16"-20 | 5880 | .24 | 1.27 | 2.72 | 1.46 | .38 | 1.78 | 1.11 | 4.51 | .18 | 1.02 | 1.07 | .32 | 1.0 lb |
| DE3L-06 SAE | 9/16"-18 | 5880 | .39 | 1.58 | 2.84 | 1.65 | .38 | 2.08 | 1.26 | 4.51 | .26 | 1.23 | 1.38 | .32 | 1.5 lbs |
| DE3L-08 SAE | 3/4"-16 | 5145 | .51 | 1.58 | 2.28 | 1.90 | .38 | 2.08 | 1.37 | 4.51 | .26 | 1.46 | 1.38 | .32 | 2.0 lbs |
| DE3L-12 SAE | 1 1/16"-12 | 5145 | .79 | 2.27 | 3.74 | 2.36 | .55 | 2.97 | 1.89 | 6.38 | .26 | 1.77 | 2.01 | .39 | 4.0 lbs |
| DE3L-16 SAE | 1 5/16"-12 | 5145 | .98 | 2.52 | 4.45 | 2.56 | .55 | 3.25 | 2.24 | 6.38 | .26 | 2.17 | 2.27 | .39 | 5.5 lbs |
| DE3L-20R SAE <i>Reduced Port</i> | 1 5/8"-12 | 4500 | .98 | 2.53 | 4.72 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.0 lbs |
| DE3L-24R SAE <i>Reduced Port</i> | 1 7/8"-12 | 4500 | .98 | 2.53 | 4.84 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.5 lbs |
| DB3L-20 SAE | 1 5/8"-12 | 4500 | 1.26 | 3.31 | 4.73 | 3.31 | .67 | 4.14 | 2.96 | 9.00 | - | - | - | .51 | 10.5 lbs |
| DB3L-24 SAE | 1 7/8"-12 | 4500 | 1.57 | 3.74 | 5.14 | 3.59 | .67 | 4.61 | 3.35 | 9.00 | - | - | - | .51 | 14.0 lbs |
| DB3L-32 SAE | 2 1/2"-12 | 4500 | 1.97 | 4.43 | 5.51 | 3.94 | .67 | 5.18 | 4.14 | 9.00 | - | - | - | .51 | 20.0 lbs |

"L" Port Standard. "T" Port available by special order, with minimum quantity.



FLUID COMPONENTS, INC.

DE3K/DB3K High Pressure Series 3-way Ball Valves

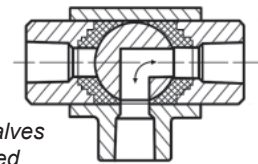
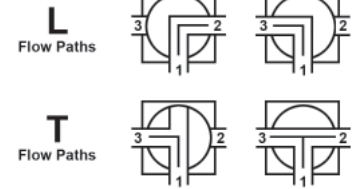
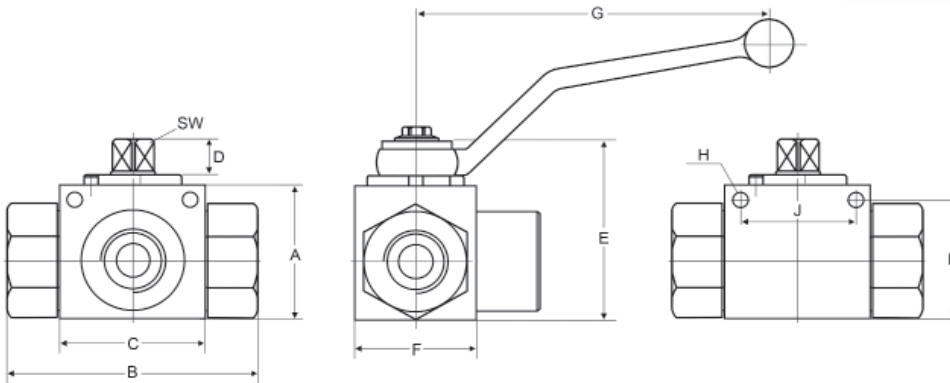
Available by Special Order Only

Features

- Mounting Holes on DE models
- 1/4" - 2" Sizes - NPT and SAE
- Full and Reduced Port
- Blow-Out Proof Stems
- Max Pressure: Up to 5880 psi
- Max Temperature: 215°F

Materials

- Carbon Steel Construction
- Standard Seals: Buna-N;
Seat: POM; Stem: Teflon;
other seals by special order
- Chrome-plated Steel Ball



* Dynamic seals in DE3K series valves allow for higher pressure at closed port without leakage.

Model #'s & Dimensional Information

| Model # | Thread | psi | Port | A | B | C | D | E | F | G | H | J | K | SW | Weight |
|---------------------------------------|------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|---------|
| DE3K*-14-NPT | 1/4" NPT | 5880 | .24 | 1.27 | 2.72 | 1.46 | .38 | 1.78 | 1.11 | 4.51 | .18 | 1.02 | 1.07 | .32 | 1.0 lb |
| DE3K*-38-NPT | 3/8" NPT | 5880 | .39 | 1.58 | 2.84 | 1.65 | .38 | 2.08 | 1.26 | 4.51 | .26 | 1.23 | 1.38 | .32 | 1.5 lbs |
| DE3K*-12-NPT | 1/2" NPT | 5145 | .51 | 1.58 | 2.28 | 1.90 | .38 | 2.08 | 1.37 | 4.51 | .26 | 1.46 | 1.38 | .32 | 2.0 lbs |
| DE3K*-34-NPT | 3/4" NPT | 5145 | .79 | 2.27 | 3.74 | 2.36 | .55 | 2.97 | 1.89 | 6.38 | .26 | 1.77 | 2.01 | .39 | 4.0 lbs |
| DE3K*-1-NPT | 1" NPT | 5145 | .98 | 2.52 | 4.45 | 2.56 | .55 | 3.25 | 2.24 | 6.38 | .26 | 2.17 | 2.27 | .39 | 5.5 lbs |
| DE3K*-114R-NPT <i>Reduced Port</i> | 1 1/4" NPT | 4500 | .98 | 2.53 | 4.72 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.0 lbs |
| DE3K*-112R-NPT <i>Reduced Port</i> | 1 1/2" NPT | 4500 | .98 | 2.53 | 4.84 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.5 lbs |

| Model # | Thread | psi | Port | A | B | C | D | E | F | G | H | J | K | SW | Weight |
|--------------------------------------|------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|---------|
| DE3K*-04 SAE | 7/16"-20 | 5880 | .24 | 1.27 | 2.72 | 1.46 | .38 | 1.78 | 1.11 | 4.51 | .18 | 1.02 | 1.07 | .32 | 1.0 lb |
| DE3K*-06 SAE | 9/16"-18 | 5880 | .39 | 1.58 | 2.84 | 1.65 | .38 | 2.08 | 1.26 | 4.51 | .26 | 1.23 | 1.38 | .32 | 1.5 lbs |
| DE3K*-08 SAE | 3/4"-16 | 5145 | .51 | 1.58 | 2.28 | 1.90 | .38 | 2.08 | 1.37 | 4.51 | .26 | 1.46 | 1.38 | .32 | 2.0 lbs |
| DE3K*-12 SAE | 1 1/16"-12 | 5145 | .79 | 2.27 | 3.74 | 2.36 | .55 | 2.97 | 1.89 | 6.38 | .26 | 1.77 | 2.01 | .39 | 4.0 lbs |
| DE3K*-16 SAE | 1 5/16"-12 | 5145 | .98 | 2.52 | 4.45 | 2.56 | .55 | 3.25 | 2.24 | 6.38 | .26 | 2.17 | 2.27 | .39 | 5.5 lbs |
| DE3K*-20R SAE <i>Reduced Port</i> | 1 5/8"-12 | 4500 | .98 | 2.53 | 4.72 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.0 lbs |
| DE3K*-24R SAE <i>Reduced Port</i> | 1 7/8"-12 | 4500 | .98 | 2.53 | 4.84 | 2.56 | .55 | 3.25 | 2.36 | 6.38 | .26 | 2.17 | 2.29 | .39 | 6.5 lbs |

* "L" and "T" Ports available. Minimum quantity may apply.

GAUGES & ACCESSORIES

HYDRAULIC PUMPS

HYDRAULIC MOTORS

APPENDIX



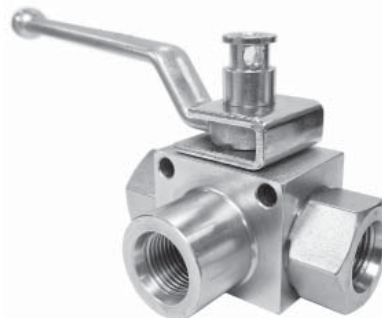
FLUID COMPONENTS, INC.

Ball Valve Accessories

Ball Valve Locking Kits

Model #'s & Descriptions

| Model # | Description |
|---------|---|
| DLK-S | "U" Locking Kit for DE Models: 1/4" - 1/2" Full Port Sizes |
| DLK-M | "U" Locking Kit for DE Models: 3/4" - 1" Full Ports & 1 1/4" - 1 1/2" Reduced Ports |
| DLK-L | "U" Locking Kit for DB Models: 1 1/4" - 2" Full Ports Sizes |
| LK-S | Flat Locking Kit for DE Models: 1/4" - 1/2" Full Port Sizes |
| LK-M | Flat Locking Kit for DE Models: 3/4" - 1" Full Ports & 1 1/4" - 1 1/2" Reduced Ports |
| LK-L | Flat Locking Kit for DB Models: 1 1/4" - 2" Full Port Sizes |



"U" Style



Flat Style

Not sure how to install your locking kit?

Visit: <https://www.youtube.com/watch?v=YjUedUGMxYM> to watch a short video demonstration on installing our "U" style locking kits.

Ball Valve Handles

Model #'s & Descriptions

| Model # | Description | Length |
|---|--|--------|
| SW9 - Sm. Silver Handle (DE 1/4" - 1/2") | SW9 Small Silver Handle for DE2 / DE3 1/4" - 1/2" Full Port Sizes | 4.51" |
| SW14 - Med. Silver Handle (DE 3/4"-1 1/2") | SW14 Medium Silver Handle for DE2 / DE3 3/4" - 1" Full Port Sizes & 1 1/4" - 1 1/2" Reduced Ports | 6.38" |
| SW17 - Lg. Silver Handle (DB 1 1/4"-2") | SW17 Large Silver Handle for DB2 / DB3 1 1/4" - 2" Full Port Sizes | 9.00" |

Seal Options

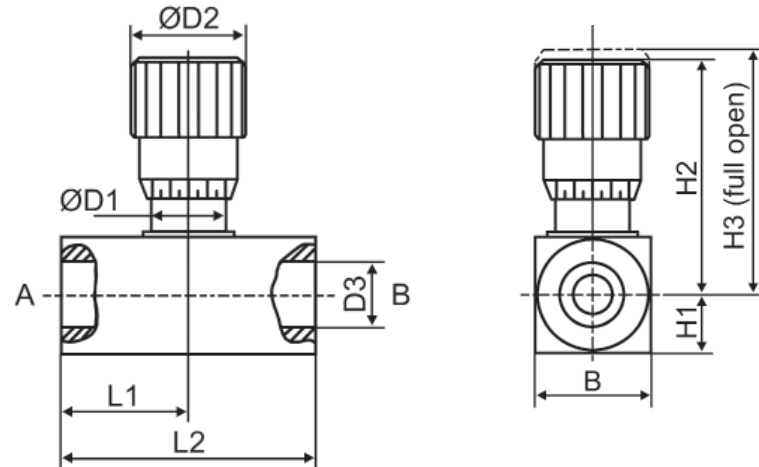
All Ball Valves come standard with Buna-N seals. Viton and other seal options available by special order. Contact Dynamic for options and availability.

Features

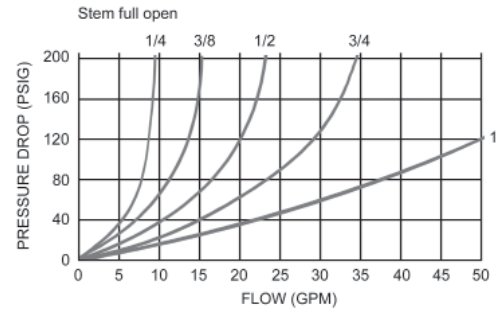
- Micrometer adjustment knob for accurate valve setting
- Rugged construction
- Maximum Pressure: 5000 psi
- Temperature Range: -4° to 176°F (-20°C to 80°C)
- Allen Head Lock Screw to Lock Handle in Place

Materials

- Body: Carbon steel with black oxide plating
- Handle: Zinc Alloy
- Set Screw: Steel
- Packing: Buna O-Ring/PTFE stem packing



Performance



Model #'s & Dimensional Information

| Model # | B | D1 | D2 | D3 | H1 | H2 | H3 | L1 | L2 | Weight |
|-----------------|-------|-------|-------|------------|-------|-------|-------|--------|-------|-----------|
| JP-NV-1/4 NPT | 1.10" | .76" | 1.18" | 1/4" NPT | .55" | 2.41" | 2.67" | 1.065" | 2.13" | .90 lbs |
| JP-NV-3/8 NPT | 1.10" | .76" | 1.18" | 3/8" NPT | .55" | 2.41" | 2.67" | 1.065" | 2.13" | .90 lbs |
| JP-NV-1/2 NPT | 1.50" | .95" | 1.46" | 1/2" NPT | .75" | 3.07" | 3.41" | 1.34" | 2.68" | 2.00 lbs |
| JP-NV-3/4 NPT | 1.50" | .95" | 1.46" | 3/4" NPT | .75" | 3.08" | 3.41" | 1.54" | 3.07" | 2.00 lbs |
| JP-NV-1 NPT | 1.89" | 1.38" | 1.89" | 1" NPT | .94" | 4.03" | 4.50" | 1.81" | 3.62" | 4.20 lbs |
| JP-NV-1 1/4 NPT | 2.39" | 1.74" | 2.26" | 1 1/4" NPT | 1.20" | 5.34" | 5.88" | 2.24" | 4.49" | 7.50 lbs |
| JP-NV-1 1/2 NPT | 2.76" | 2.38" | 3.17" | 1 1/2" NPT | 1.38" | 6.30" | 7.13" | 2.41" | 4.81" | 15.40 lbs |
| JP-NV-06-SAE | 1.10" | .76" | 1.18" | 06 SAE | .55" | 2.41" | 2.67" | 1.065" | 2.13" | .90 lbs |



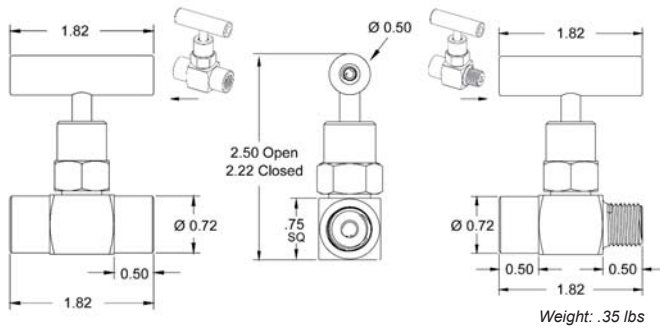
FLUID COMPONENTS, INC.

High Pressure Series Needle Valve

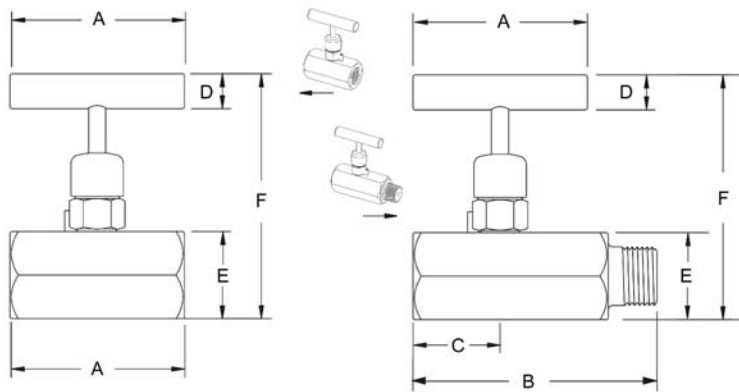
Features

- Rated up to 10,000 psi at 200°F
- Zinc-nickel plated steel body with 316SS stem
- Blow out proof stem
- Slotted spring pin prevents accidental loosening

Dimensions for 1/8" Valves



Dimensions for 1/4" - 1 1/2" Valves



The HPNV series of high pressure needle valves replaces the DFFG series which we previously offered. A quick cross reference is provided below.

| Old Part # | New Part # |
|------------|----------------|
| DFFG2001T | HPNV-1/8NPT-FF |
| DFFG2002T | HPNV-1/4NPT-FF |
| DFFG2003T | HPNV-3/8NPT-FF |
| DFFG2004T | HPNV-1/2NPT-FF |
| DFFG2006TA | HPNV-3/4NPT-FF |
| DFFG2008TA | HPNV-1NPT-FF |

| Valve Size | A | B | C | D | E | F | | Weight |
|-------------------|-------|-------|--------|---------|------------|--------|-------|----------|
| | | | | | | Closed | Open | |
| 1/4" - 1/2" NPT | 2.5" | 3.5" | 1.25" | Ø 0.5" | 1.25" Hex | 3.50" | 3.78" | 1.10 lbs |
| 3/4" - 1 1/2" NPT | 4.25" | 5.25" | 2.125" | Ø 0.75" | 2.25" Hex" | 4.75" | 5.50" | 5.20 lbs |

Ordering Example:

Model: **HPNV** - Size: **1 NPT** - Connection: **FF**

| Model | Size | Connection |
|-------|---------|------------|
| HPNV | 1/8 NPT | 3/4 NPT |
| | 1/4 NPT | 1 NPT |
| | 3/8 NPT | 1 1/4 NPT |
| | 1/2 NPT | 1 1/2 NPT |
| | | |

Features

- Micrometer adjustment knob for accurate valve setting
- Rugged construction
- Maximum Pressure: 5000 psi
- Temperature Range: -4° to 176°F (-20°C to 80°C)
- Allen Head Lock Screw to Lock Handle in Place

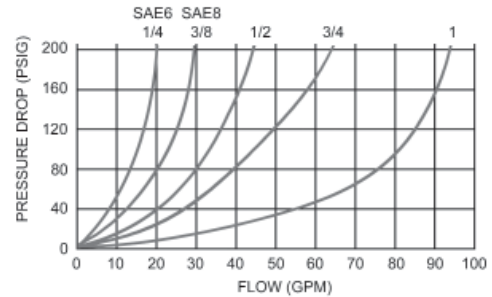
Materials

- Body: Carbon steel with black oxide plating
- Handle: Zinc Alloy
- Set Screw: Steel
- Packing: Buna O-Ring/PTFE stem packing

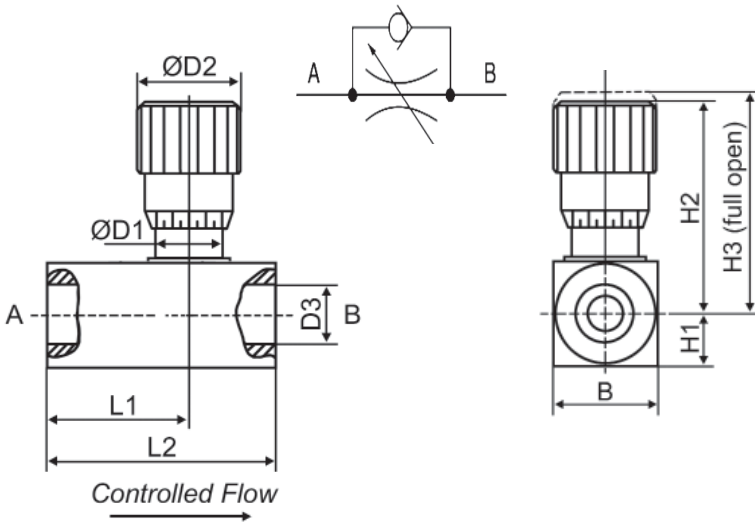
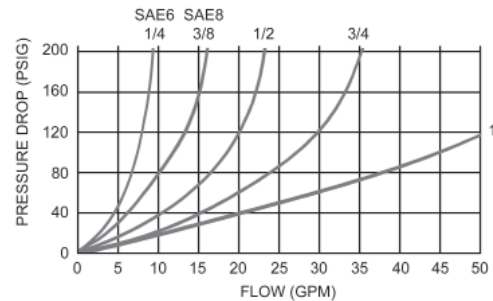


Performance

Free Flow Direction - Stem full open



Controlled Flow Direction - Stem full open



Model #'s & Dimensional Information

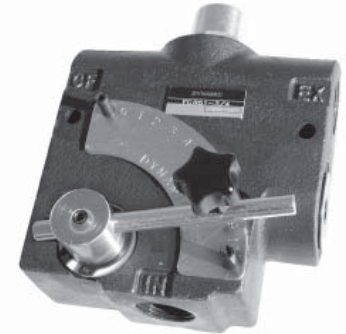
| Model # | B | D1 | D2 | D3 | H1 | H2 | H3 | L1 | L2 | Weight |
|-----------------|-------|-------|-------|------------|-------|-------|-------|-------|-------|----------|
| JP-FC-1/4 NPT | 1.10" | .76" | 1.18" | 1/4" NPT | .55" | 2.41" | 2.67" | 1.54" | 2.52" | .90 lbs |
| JP-FC-3/8 NPT | 1.10" | .76" | 1.18" | 3/8" NPT | .55" | 2.41" | 2.67" | 1.69" | 2.75" | .90 lbs |
| JP-FC-1/2 NPT | 1.50" | .95" | 1.46" | 1/2" NPT | .75" | 3.07" | 3.41" | 2.05" | 3.27" | 2.00 lbs |
| JP-FC-3/4 NPT | 1.50" | .95" | 1.46" | 3/4" NPT | .75" | 3.08" | 3.41" | 2.19" | 3.50" | 2.00 lbs |
| JP-FC-1 NPT | 1.89" | 1.38" | 1.89" | 1" NPT | .94" | 4.03" | 4.50" | 2.79" | 4.60" | 4.20 lbs |
| JP-FC-1-1/4 NPT | 2.38" | 1.96" | 2.28" | 1 1/4" NPT | 1.18" | 5.25" | 5.88" | 3.39" | 6.07" | 9.55 lbs |
| JP-FC-SAE6 | 1.10" | .76" | 1.18" | 06 SAE | .55" | 2.41" | 2.67" | 1.69" | 2.75" | .90 lbs |
| JP-FC-SAE8 | 1.50" | .95" | 1.46" | 08 SAE | .75" | 3.07" | 3.41" | 2.05" | 3.27" | 2.00 lbs |



FLUID COMPONENTS, INC.

Pressure Compensating Variable Flow Control

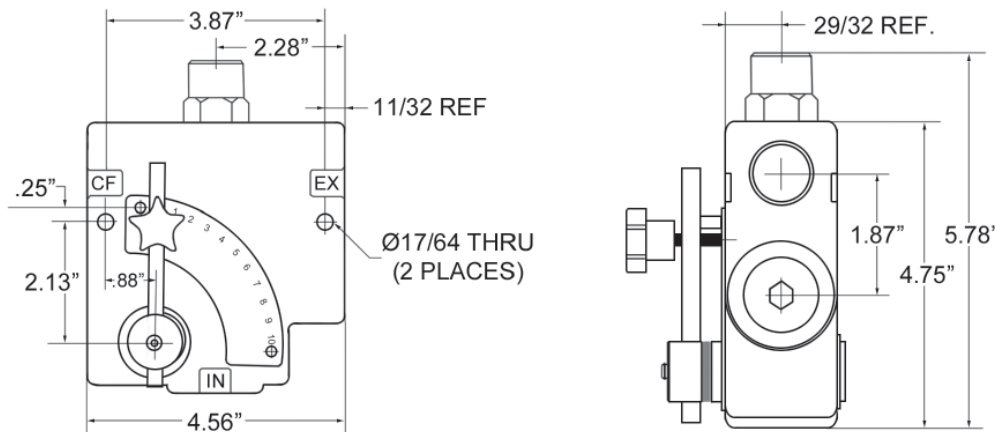
Model DFC-51 is a full-range pressure compensating variable flow control. It is designed so that the orifice area varies as the lever is rotated. The outlet flow is smooth and constant regardless of the pressure on the control flow or excess flow ports. An adjustable ball spring relief allows for pressure compensated flow up to the pressure setting on the relief with accuracy to 150psi. Relief valves are preset at 2100 psi and field adjustable from 75 to 3000 psi. Weight: 9.00 lbs.



Materials

- Cast Iron Body
- Heat Treated Compensator Spool
- Stainless Steel Rotary Spool
- Buna-N "O" Rings

Installation Data



Ordering Example:

Model Relief Series Ports
DFC - R - 51 - 34-N

| Model | Relief Option | Series | Port Size & Flow |
|-------|---|--------|----------------------------|
| DFC | R = Adj. Ball Spring Relief | 51 | 38-N = 3/8" NPT (0-8 gpm) |
| | N = No Relief | | 12-N = 1/2" NPT (0-16 gpm) |
| | B* = Extended Relief (+/- 30psi accuracy) | | 34-N = 3/4" NPT (0-30 gpm) |
| | | | 06-S = 06 SAE (0-8 gpm) |
| | | | 08-S = 08 SAE (0-16 gpm) |
| | | | 10-S = 10 SAE (0-16 gpm) |
| | | | 12-S = 12 SAE (0-32 gpm) |

*Special Order Only

Model FDA Gear Flow Divider



Model FDA is a rotary gear flow divider with 6 displacements from .129 to .517 in³/rev (2.13 to 8.42 cm³/rev). Maximum flow rates of 2.5 to 8.5 gpm are available across the displacement range. Standard ports are SAE, sizes are noted in the data chart below. Relief preset at 1800psi.

Recommended working conditions:

FILTRATION: 25 micron or better
 OIL VISCOSITY: 6 - 200 cSt
 INLET PRESSURE: 12 - 32 psi absolute
 OIL TEMPERATURE: -25° - 80° C (-12° - 175° F)
 AMBIENT -22° - 55° C (-8° - 130° F)

Technical Specifications

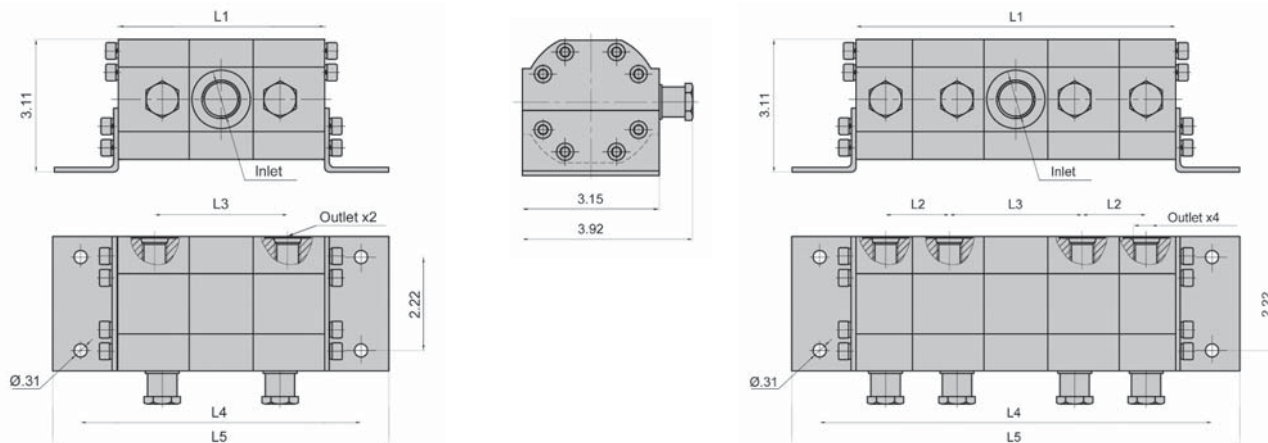
Specifications based on using Petroleum oil at 120°F (49°C), viscosity 150 SUS at 100°F and 0 inlet pressure.
 Maximum Outlet Pressure: 3500 psi (240 bar)

| Model | Displacement | | Flow per Section (gpm) | | Dimensions | | | | | | | Weight |
|-------------|----------------------|----------------------|------------------------|-----|------------|--------|-------|------|------|-------|-------|--------|
| | in ³ /rev | cm ³ /rev | min | max | Inlet | Outlet | L1 | L2 | L3 | L4 | L5 | lbs |
| FDA-2*-129* | .129 | 2.13 | 1.20 | 2.5 | SAE 8 | SAE 8 | 4.25 | - | 2.87 | 6.02 | 7.24 | 4.45 |
| FDA-2*-194* | .194 | 3.18 | 1.70 | 4.5 | SAE 8 | SAE 6 | 4.60 | - | 2.76 | 6.38 | 7.60 | 4.95 |
| FDA-2*-258* | .258 | 4.24 | 2.50 | 5.0 | SAE 10 | SAE 6 | 4.84 | - | 2.99 | 6.61 | 7.83 | 5.40 |
| FDA-2*-323* | .323 | 5.29 | 3.00 | 6.0 | SAE 10 | SAE 10 | 5.16 | - | 3.31 | 6.93 | 8.15 | 5.68 |
| FDA-2*-388* | .388 | 6.36 | 3.50 | 7.0 | SAE 10 | SAE 10 | 5.43 | - | 3.58 | 7.20 | 8.43 | 5.85 |
| FDA-2*-517* | .517 | 8.42 | 4.50 | 9.0 | SAE 10 | SAE 10 | 6.02 | - | 4.17 | 7.79 | 9.02 | 6.25 |
| FDA-4*-129* | .129 | 2.13 | 1.20 | 2.0 | SAE 8 | SAE 8 | 7.72 | 1.58 | 3.23 | 9.49 | 10.71 | 9.59 |
| FDA-4*-194* | .194 | 3.18 | 1.70 | 3.0 | SAE 8 | SAE 6 | 8.39 | 1.69 | 3.19 | 10.39 | 11.42 | 10.24 |
| FDA-4*-258* | .258 | 4.24 | 2.50 | 4.2 | SAE 10 | SAE 6 | 8.86 | 1.81 | 3.43 | 10.63 | 11.85 | 10.37 |
| FDA-4*-323* | .323 | 5.29 | 3.00 | 4.7 | SAE 10 | SAE 8 | 9.49 | 1.97 | 3.74 | 11.26 | 12.48 | 10.54 |
| FDA-4*-388* | .388 | 6.36 | 3.50 | 6.1 | SAE 10 | SAE 8 | 10.04 | 2.09 | 4.25 | 11.88 | 13.03 | 10.89 |
| FDA-4*-517* | .517 | 8.42 | 4.50 | 8.5 | SAE 10 | SAE 10 | 11.22 | 2.40 | 4.61 | 12.99 | 14.21 | 11.15 |

Flow Rate (gpm) = Displacement (in³/rev) X Speed (rpm) / 231

Volumetric efficiency % ≥93

Installation Data



Ordering Example: **FDA** - **2** - **N** - **258** - **S**

| Category | Series | Relief | Displacement | Ports |
|--------------------|---------------------------------|--|----------------------------|---------|
| FDA = Flow Divider | 2 - 2-section 4* - 4-section | N = No Relief Valve R* = Relief Valve | 129/194/258 323/388/517 | S - SAE |

*Special Order - minimums may apply

GAUGES & ACCESSORIES

HYDRAULIC PUMPS

HYDRAULIC MOTORS

APPENDIX



FLUID COMPONENTS, INC.

Model DYFB

Spool Flow Divider



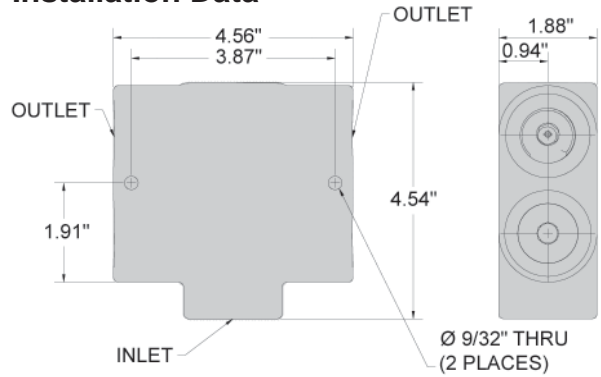
Features

- Precision ground heat treated spool
- Pressure compensation for both outlet ports
- Divides inlet flow into two flows of equal flow (other ratios available with minimum order)
- Maximum Pressure: 3000 psi
- Optional free reverse flow allows fluid to move from the outlet ports to the inlet port

Materials

- Cast Iron Body
- Buna N "O" Rings
- Heat Treated Steel Spool
- Heat Treated Free Reverse Check Seat

Installation Data



Technical Specifications

| Port Size | Min. Flow each section | Max. Flow each section | Max. Outlet Pressure | Weight |
|-----------|------------------------|------------------------|----------------------|----------|
| 3/8" NPT | 2 gpm | 8 gpm | 3000 psi | 7.25 lbs |
| 1/2" NPT | 8 gpm | 16 gpm | | 7.25 lbs |
| 3/4" NPT | 16 gpm | 30 gpm | | 7.25 lbs |
| #10 SAE | 8 gpm | 16 gpm | | 7.25 lbs |
| #12 SAE | 16 gpm | 30 gpm | | 7.25 lbs |

Ordering Example:

Model
Flow Options
Port Size

DYFB
-
100
-
1/2

| Category | Flow Options | Port Size |
|---------------------|--|--|
| DYFB = Flow Divider | 50* = Inlet to Outlet 100 = Free Reverse Flow | 3/8 = 3/8" NPT 1/2 = 1/2" NPT 3/4 = 3/4" NPT 10SAE = 10 SAE 12SAE = 12 SAE |

*Special Order - minimums may apply

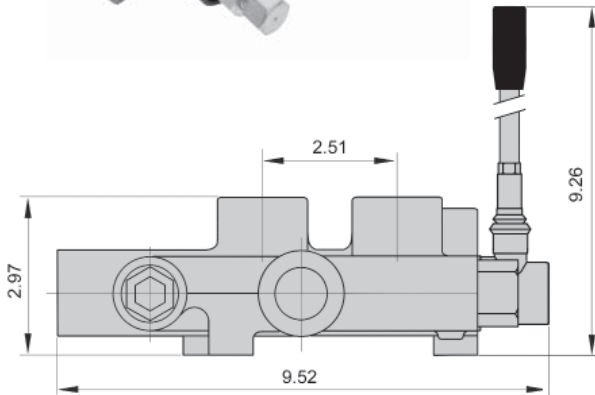
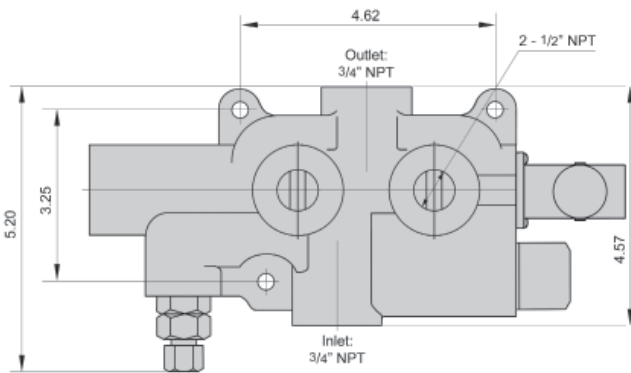
Model JPLS-3000 offers a hydraulically-balanced, chrome-plated spool and pressure release detent adjustable from 1000 to 2000 psi. Recommended for systems with flows up to 25 gpm, the JPLS-3000 relief valve is adjustable up to 2750 psi. When the tandem center spool is in neutral position, hydraulic flow is diverted to the return line. This is used to hold the cylinder/piston in position with no load on the pump, keeping wear and tear on the pump to a minimum.

Technical Specifications

- Max Operating Pressure: 2750 psi
- Max Tank Pressure: 150 psi
- Max Flow Rating: 25 gpm
- Relief Valve Setting: 2250 psi
- Recommended Filtration: ISO 4406 19/17/14
- Max Operating Temperature: 180°F
- Standard Port Size: 1/2" NPT
- Weight: 10 lbs

In exposed applications, do not mount with spool vertical and handle down.

Installation Data



Ordering Example:

Model **JPLS** - Series **3000**

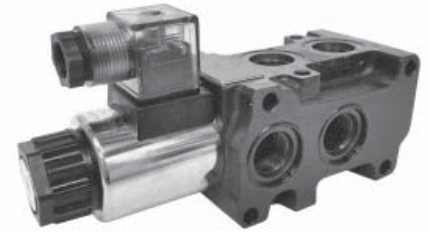
Note: 1/2" NPT ports are standard. Additional port options may be available with special order.



FLUID COMPONENTS, INC.

Model DSV Selector Valve

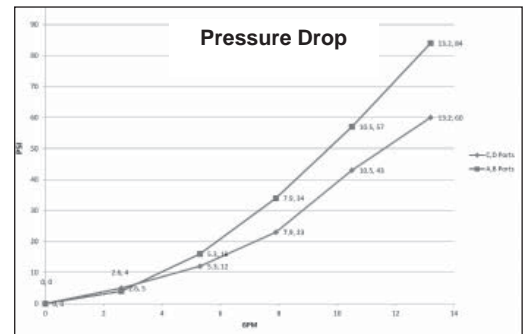
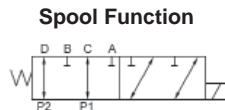
The DSV 12-volt DC selector valve is operated by a continuously rated wet pin solenoid. This is capable of switching from one circuit to another at a variety of flows and pressures. The DSV may be connected to the service ports of a directional control valve and used to direct service line flow to and from either of two separate devices. If more than two circuits are to be controlled, additional units can be stacked together (max of 3), minimizing the need for pipes and fittings. Also the DSV series valves can be connected to a pump and used to direct the flow to either one of two different circuits.



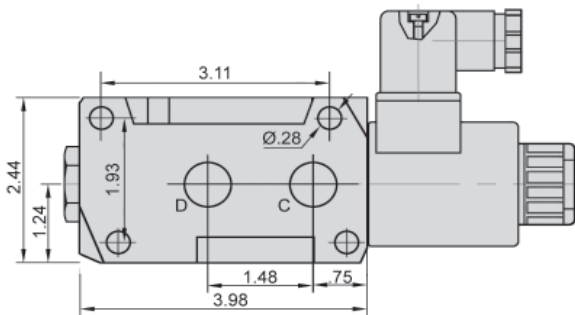
Technical Specifications

| Hydraulic | | |
|------------------------|------------------------|------------------------|
| Port Size | 3/4-16 - SAE-08 | 7/8-14 - SAE-10 |
| Max Flow Rate | 13.2 gpm | 24.0 gpm |
| Operating Pressure | 3600 psi | 3600 psi |
| Oil Temp Range | -4°F - 158°F | -4°F - 158°F |
| Viscosity Range | 70-1790 SSu | 70-1790 SSu |
| Filtration Requirement | NAS 1638 8 | NAS 1638 8 |
| Weight | 6.5 lbs | 11.5 lbs |

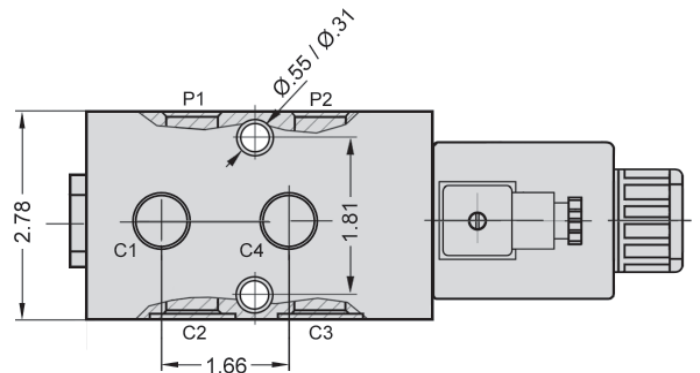
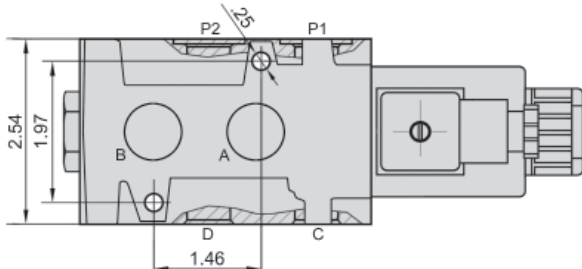
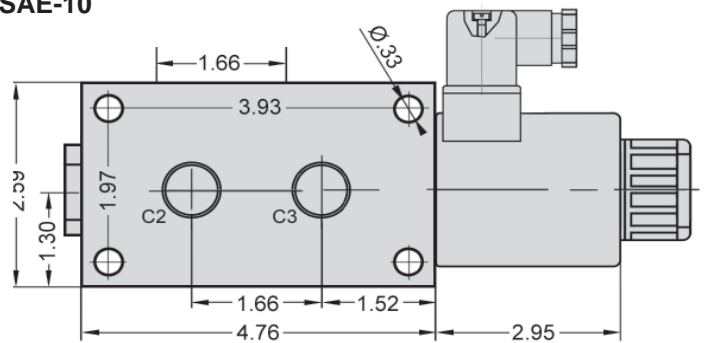
| Electrical | |
|------------------|--------------------------------------|
| Supply Voltage | 12/24 VDC |
| Amperage Rating | 2.50A for DC 12V 1.21A for DC 24V |
| Max Ambient Temp | 125° F |
| Max Coil Temp | 356° F |
| Duty Cycle | Continuous |



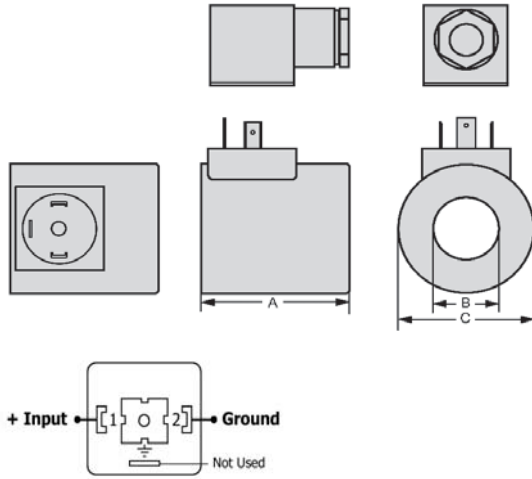
SAE-08



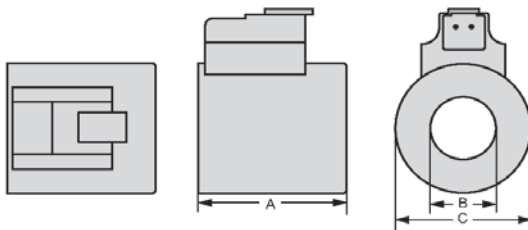
SAE-10



DIN Connector

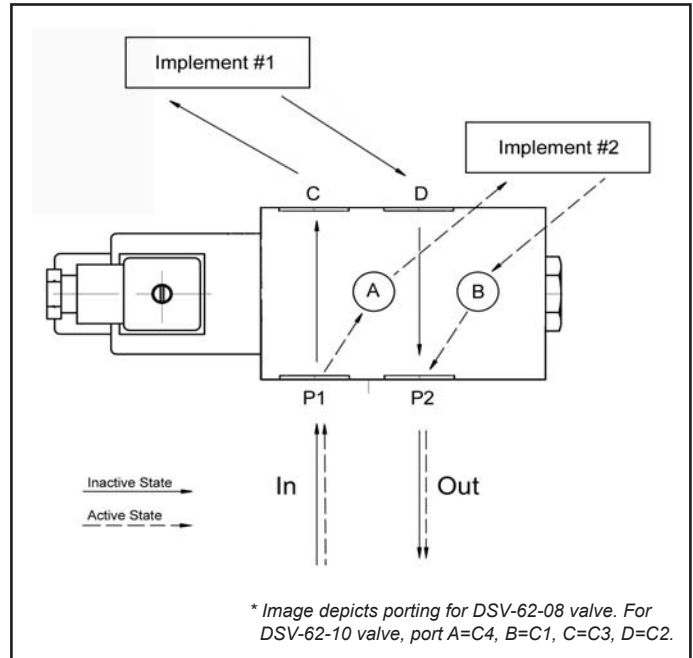


Deutsch Connector



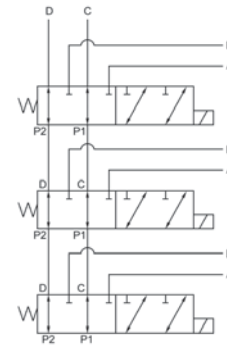
Coil Dimensions

| Size | A | B | C |
|--------|-------|-------|-------|
| SAE-08 | 1.99" | .91" | 1.77" |
| SAE-10 | 2.96" | 1.22" | 2.48" |



Stacking Valves

DSV Selector Valves can be stacked together to provide multiple circuit capacity. Up to 3 units can be stacked as the diagram below shows.



Ordering Example: Model **DSV** - Style **62** - Port Size **08** - Supply Voltage **12** - Connector **DIN**

| Model | Style | Port Size** | Supply Voltage | Connector** |
|-----------------------------|-----------------------|----------------------------|--|----------------------------|
| DSV= Dynamic Selector Valve | 62 = 6-way, 2-Station | 08 = SAE-08 10 = SAE-10 | 12 = 12VDC 24* = 24VDC 110* = 110VAC | DIN = DIN DEU = Deutsch |

* Special Order

** Additional port sizes and connectors may be available by special order.



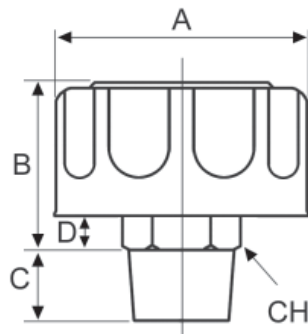
FLUID COMPONENTS, INC.

DB Series

Screw-On Air Breathers

Features

- 40 Micron Breather
- Cap: Chrome-plated Steel
- Connector: Galvanized Steel
- Sizes: 1/4" to 1" NPT
- Working Temp: -13° - 230°F



Dimensional Information

| Model # | Thread | A | B | C | D | CH | Micron | Flow | Weight |
|---------|----------|-------|-------|------|------|-------|--------|---------|---------|
| DB40-04 | 1/4" NPT | 1.85" | 1.30" | .47" | .28" | .75" | 40 | 40 gpm | .20 lbs |
| DB40-06 | 3/8" NPT | 1.85" | 1.30" | .47" | .28" | .75" | 40 | 79 gpm | .20 lbs |
| DB40-08 | 1/2" NPT | 3.12" | 2.09" | .62" | .28" | 1.27" | 40 | 119 gpm | .30 lbs |
| DB40-12 | 3/4" NPT | 3.12" | 2.09" | .62" | .28" | 1.27" | 40 | 198 gpm | .50 lbs |
| DB40-16 | 1" NPT | 3.12" | 2.12" | .75" | .38" | 1.42" | 40 | 225 gpm | .70 lbs |

Ordering Example:

Model Filtration Connection
DB **40** - **04**

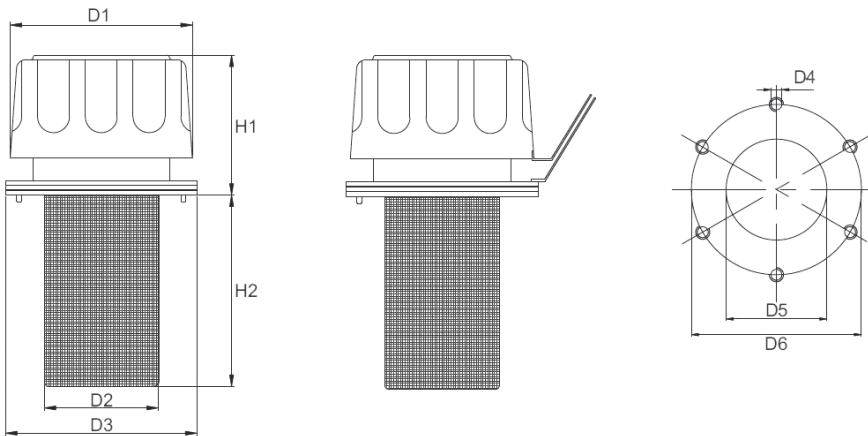
| Model | Filtration | Connection |
|--------------------------------|----------------|---|
| DB = Designation for Breathers | 40 = 40 micron | 04 = 1/4" NPT 06 = 3/8" NPT 08 = 1/2" NPT 12 = 3/4" NPT 16 = 1" NPT |

Features

- Chrome Plated Steel Cap
- 40 Micron Breather
- 3" & 6" Basket Lengths
- Metal Basket Standard
- Lockable Option



Installation Data



Dimensional Information

| Model | D1 | D2 | D3 | D4 | D5 | D6 | H1 | H2 | Filtration | Flow Rate | Weight |
|----------|-------|-------|-------|----|-------|-------|-------|-------|------------|-----------|---------|
| DFB40-03 | 3.15" | 1.97" | 3.27" | M5 | 2.05" | 2.87" | 2.24" | 3.07" | 40 micron | 119 gpm | .75 lbs |
| DFB40-06 | 3.15" | 1.97" | 3.27" | M5 | 2.05" | 2.87" | 2.24" | 6.18" | 40 micron | 119 gpm | .90 lbs |

Ordering Example:

| Model | Filtration | Basket Length | Options |
|------------|------------|---------------|-------------|
| DFB | 40 | - 03 | - MB |

| Model | Filtration | Basket Length | Options |
|--|----------------|--------------------|--|
| DFB = Designation for Filter Breathers | 40 = 40 micron | 03 = 3" 06 = 6" | MB = Standard Metal Basket L = Lockable |

Consult Factory for ordering caps or baskets only