

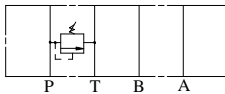
# IFP MRV03 RELIEF VALVE MODULE



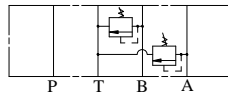
- ISO4401-03 SIZE/NFPA D03
- ADJUSTABLE STANDARD MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- TWO STAGE BALANCE PISTON
- FOUR PRESSURE RANGES AVAILABLE
- LOW PRESSURE OVERRIDE



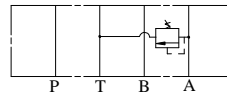
MRV-03-P



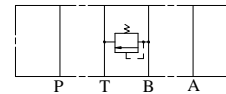
MRV-03-W



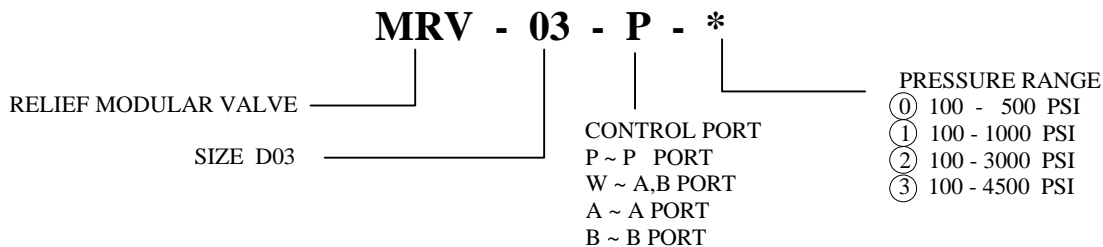
MRV-03-A



MRV-03-B



## ORDERING CODE



## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MRV-03-P-* | D03  | 4500 PSI            | 15               | ① 100 - 500 PSI      | 3.30       |
| MRV-03-W-* |      |                     |                  | ② 100 - 1000 PSI     | 5.07       |
| MRV-03-A-* |      |                     |                  | ③ 100 - 3000 PSI     | 3.50       |
| MRV-03-B-* |      |                     |                  | ④ 100 - 4500 PSI     | 3.50       |

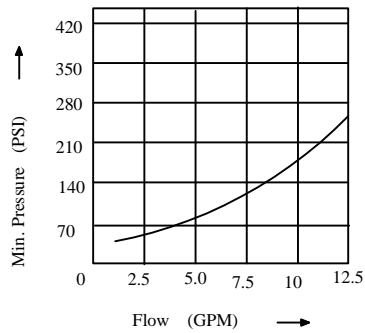
IFP offer a balanced piston modular relief valve, designed for use in applications requiring an adjustable regulating valve to limit the pressure in a hydraulic circuit to a predetermined maximum. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFP MRV03 RELIEF VALVE MODULE

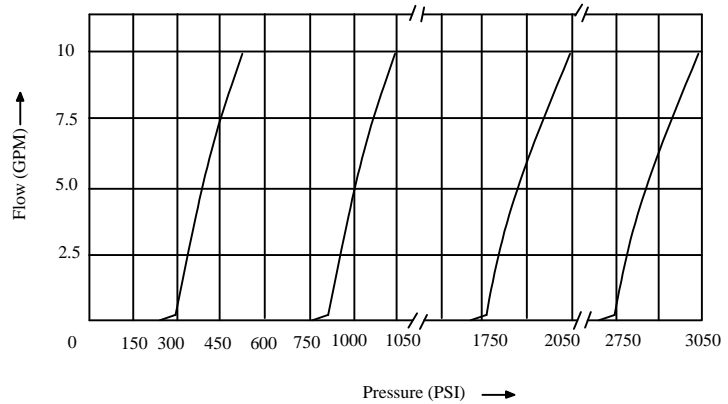


## PERFORMANCE CURVES Viscosity (100-150 SUS)

MRV-03-\*- 1  
Flow-Min. Pressure characteristic

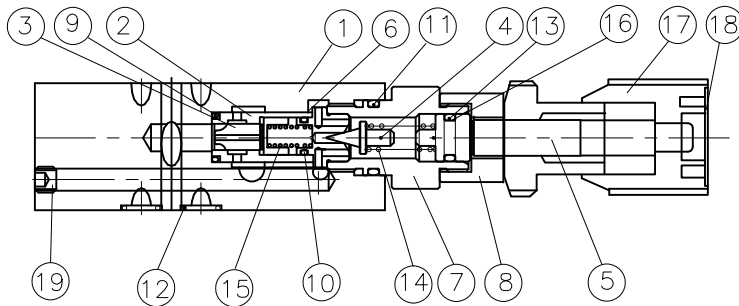


MRV-03-\*- 1  
Pressure - Flow characteristic



## CROSS SECTION DIAGRAM

MRV-03-P-\*



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | SLEEVE       |
| 3   | SPOOL        |
| 4   | POPPET       |
| 5   | SCREW        |
| 6   | SEAT         |
| 7   | RETAINER     |
| 8   | BUSHING      |
| 9   | O-RING       |
| 10  | O-RING       |
| 11  | O-RING       |
| 12  | O-RING       |
| 13  | O-RING       |
| 14  | SPRING       |
| 15  | SPRING       |
| 16  | BACK-UP RING |
| 17  | KNOB UNIT    |
| 18  | PLATE        |
| 19  | PLUG         |

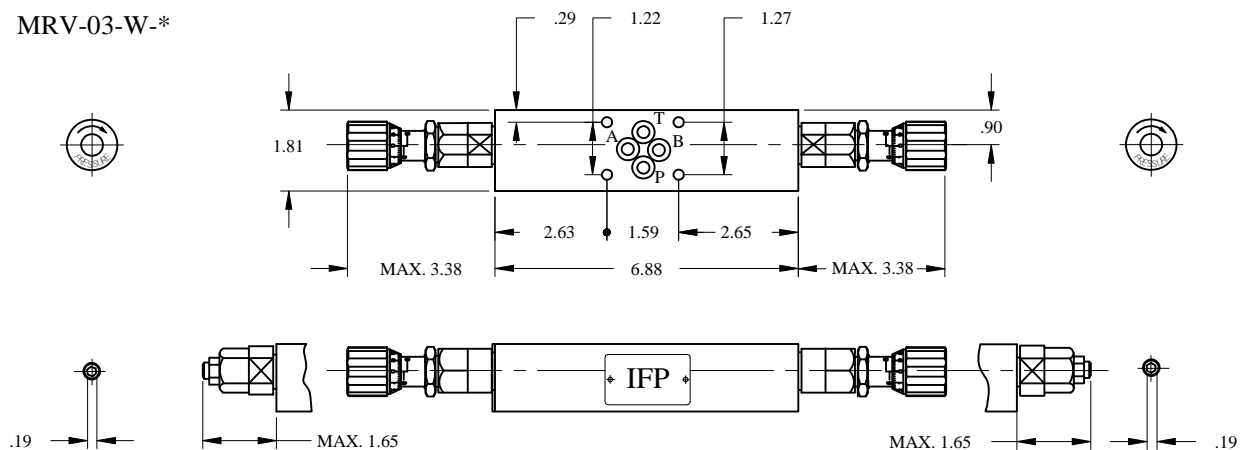
| NO. | PARTS NAME | PARTS NO.     | Q'TY |   |   |   |
|-----|------------|---------------|------|---|---|---|
|     |            |               | P    | W | A | B |
| 9   | O-RING     | P14, 70°      | 1    | 2 | 1 | 1 |
| 10  | O-RING     | AS568-013,90° | 1    | 2 | 1 | 1 |
| 11  | O-RING     | P18,90°       | 1    | 2 | 1 | 1 |
| 12  | O-RING     | P9,90°        | 4    | 4 | 4 | 4 |
| 13  | O-RING     | P10A,70°      | 1    | 2 | 1 | 1 |

# IFP MRV03 RELIEF VALVE MODULE

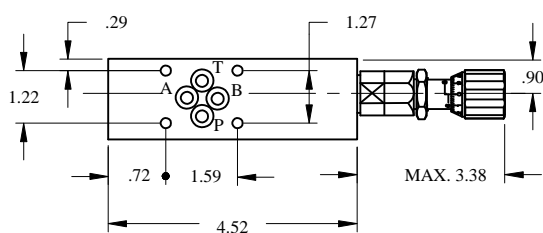


## DIMENSIONS

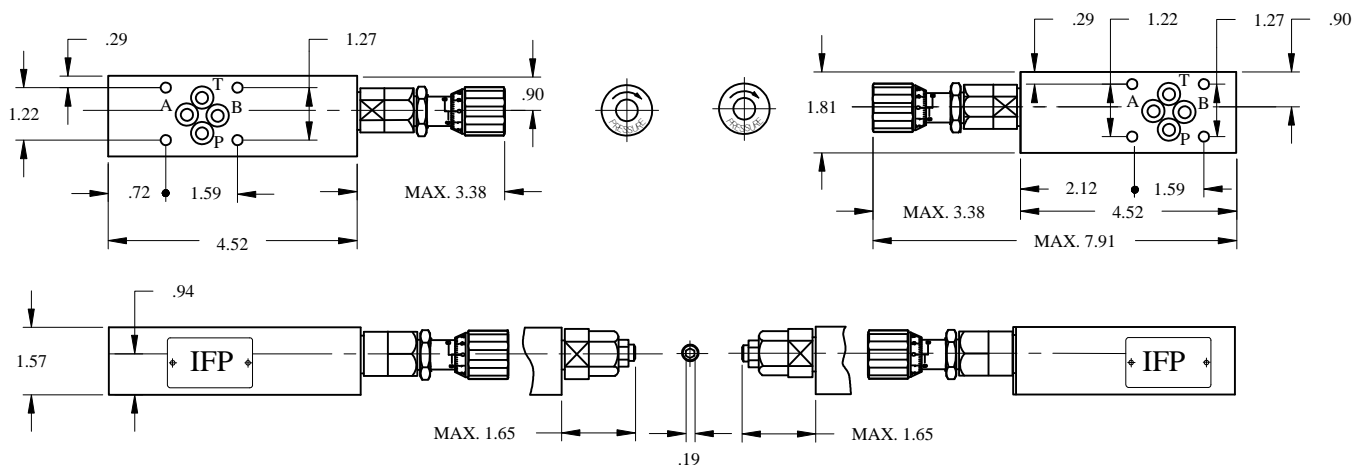
MRV-03-W-\*



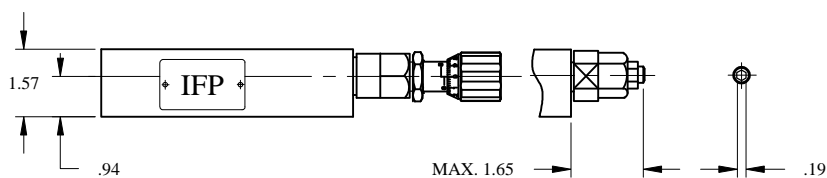
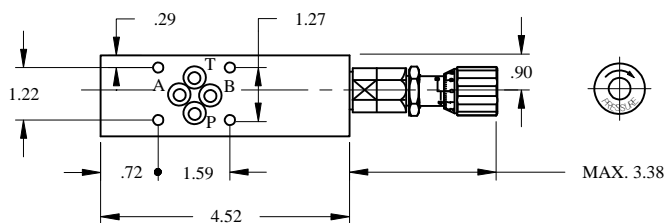
MRV-03-P-\*



MRV-03-A-\*



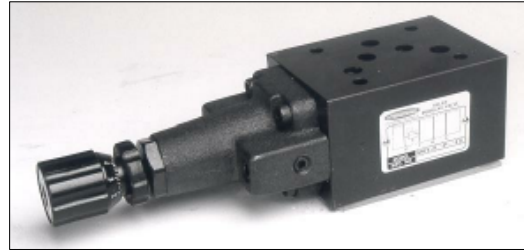
MRV-03-B-\*



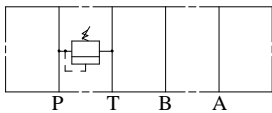
# IFP MRV05 RELIEF VALVE MODULE



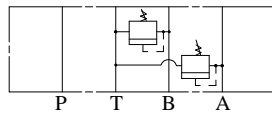
- ISO4401-05 SIZE/NFPA D05
- ADJUSTABLE STANDARD MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- TWO STAGE BALANCE PISTON
- FOUR PRESSURE RANGES AVAILABLE
- LOW PRESSURE OVERRIDE



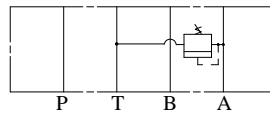
MRV-05-P



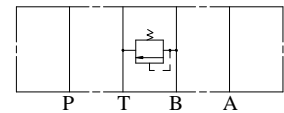
MRV-05-W



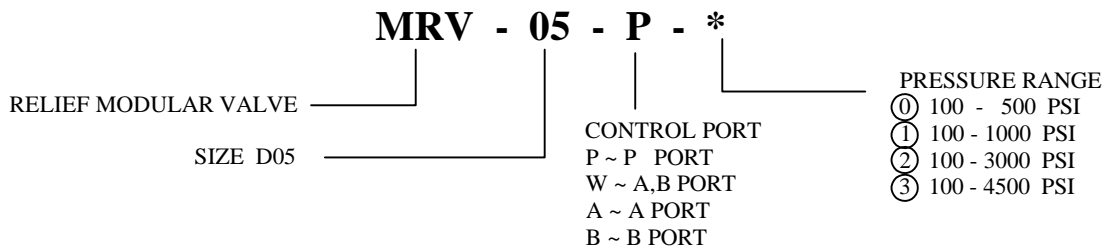
MRV-05-A



MRV-05-B



## ORDERING CODE



## SPECIFICATIONS

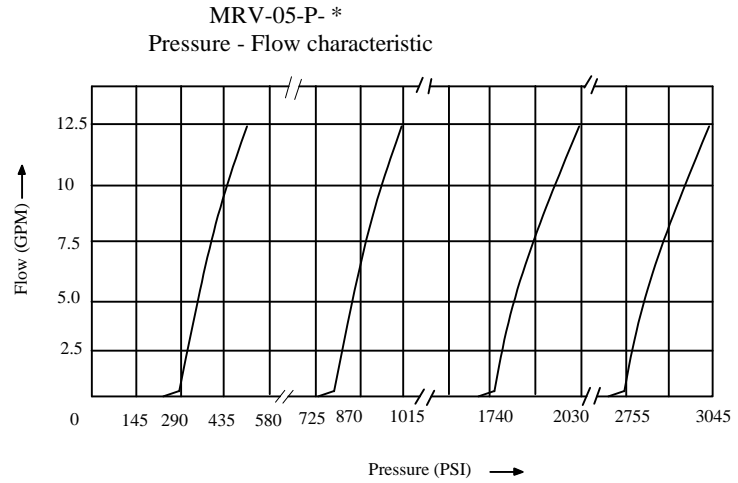
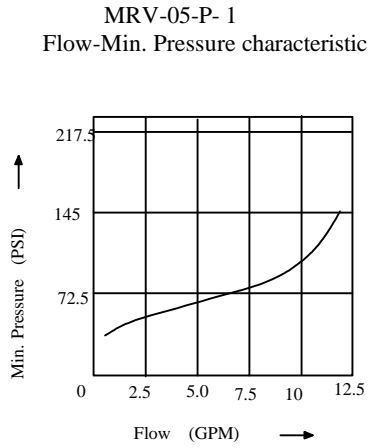
| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MRV-05-P-* | D05  | 4500 PSI            | 30               | ① 100 - 500 PSI      | 6.83       |
| MRV-05-W-* |      |                     |                  | ① 100 - 1000 PSI     | 8.60       |
| MRV-05-A-* |      |                     |                  | ② 100 - 3000 PSI     | 6.83       |
| MRV-05-B-* |      |                     |                  | ③ 100 - 4500 PSI     | 6.83       |

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# IFP MRV05 RELIEF VALVE MODULE

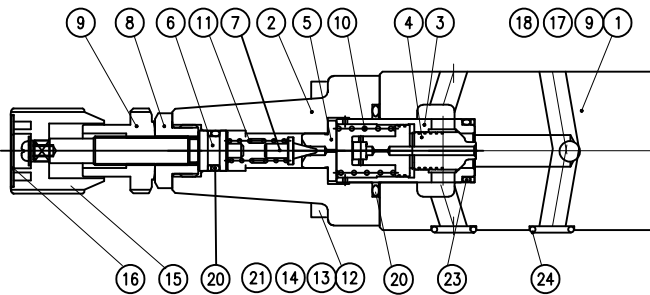


## PERFORMANCE CURVES Viscosity (100-150 SUS)



## CROSS SECTION DIAGRAM

MRV-05-P-\* -10



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | COVER        |
| 3   | SPOOL        |
| 4   | SLEEVE       |
| 5   | SEAT         |
| 7   | POPPET       |
| 8   | BUSHING      |
| 9   | NAME PLATE   |
| 10  | SPRING       |
| 11  | SPRING       |
| 12  | SCREW        |
| 13  | PLUG         |
| 14  | PLUG         |
| 15  | KNOB UNIT    |
| 16  | PLATE        |
| 17  | RIVET        |
| 18  | PLUG         |
| 19  | BACK-UP RING |
| 20  | O-RING       |
| 21  | O-RING       |
| 22  | O-RING       |
| 23  | O-RING       |
| 24  | O-RING       |

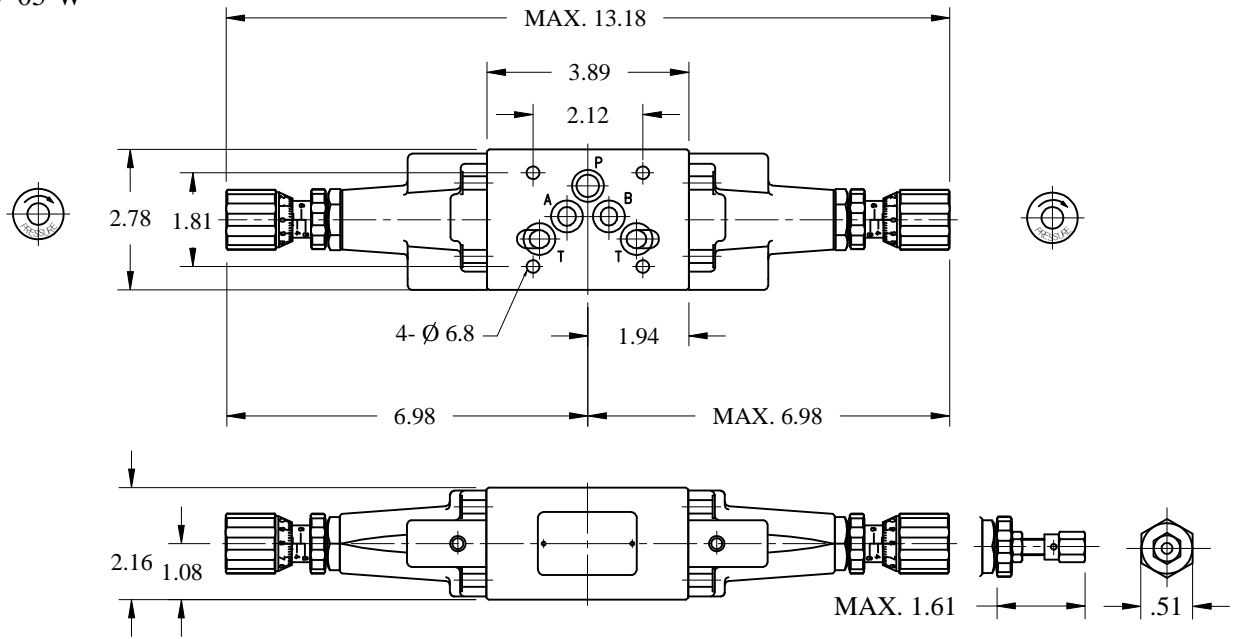
| NO. | PARTS NAME | PARTS NO. | Q'TY |   |   |   |
|-----|------------|-----------|------|---|---|---|
|     |            |           | P    | W | A | B |
| 20  | O-RING     | P10A, 70° | 1    | 2 | 1 | 1 |
| 21  | O-RING     | P7, 70°   | 1    | 2 | 1 | 1 |
| 22  | O-RING     | P26, 90°  | 1    | 2 | 1 | 1 |
| 23  | O-RING     | P18, 70°  | 1    | 2 | 1 | 1 |
| 24  | O-RING     | AS568-014 | 5    | 5 | 5 | 5 |

# IFP MRV05 RELIEF VALVE MODULE



## DIMENSIONS

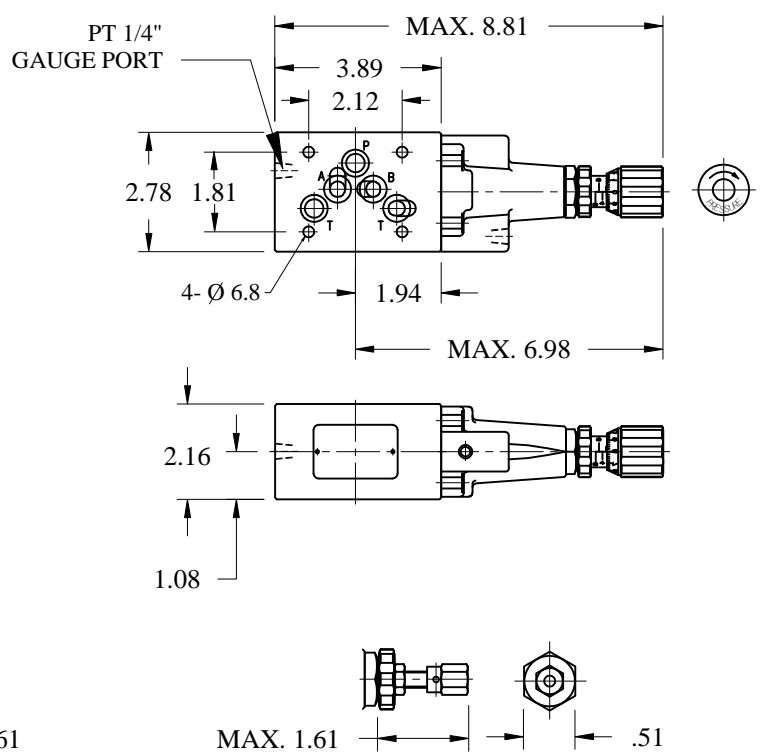
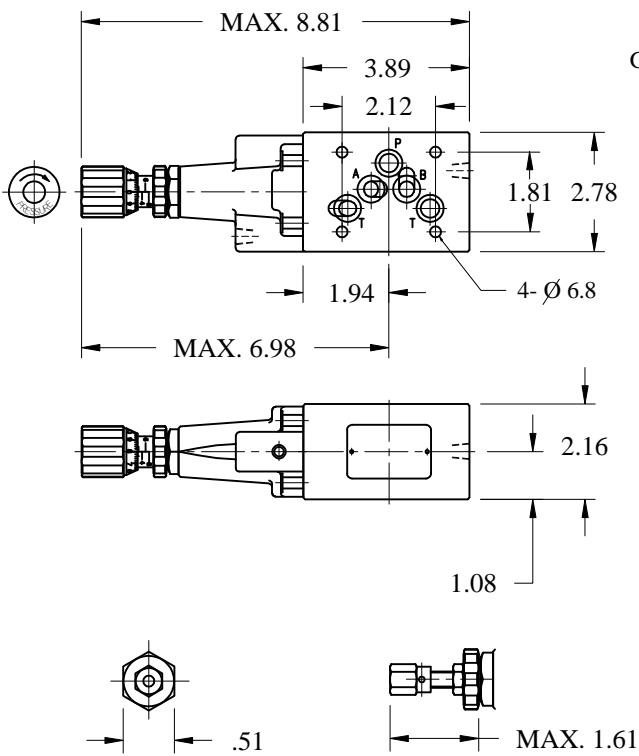
MRV-05-W-\*



MRV-05-P-\*

(A)

MRV-05-B-\*



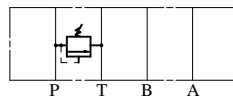
# IFP MRV07 RELIEF VALVE MODULE



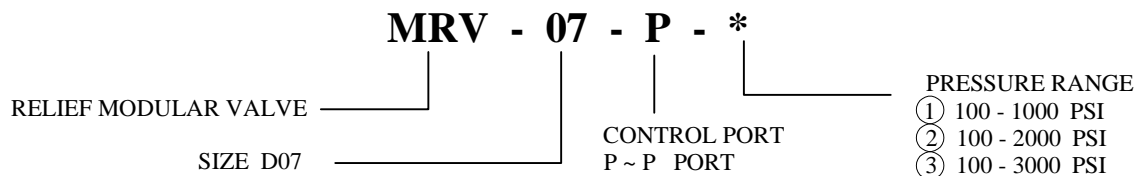
- ISO4401-07 SIZE/NFPA D07
- MICROMETER KNOB ADJUSTABLE STANDARD
- EXTREMELY PRECISE CONTROL
- TWO STAGE BALANCED PISTON
- FOUR PRESSURE RANGES AVAILABLE
- LOW PRESSURE OVERRIDE



MRV-07-P



## ORDERING CODE



## SPECIFICATIONS

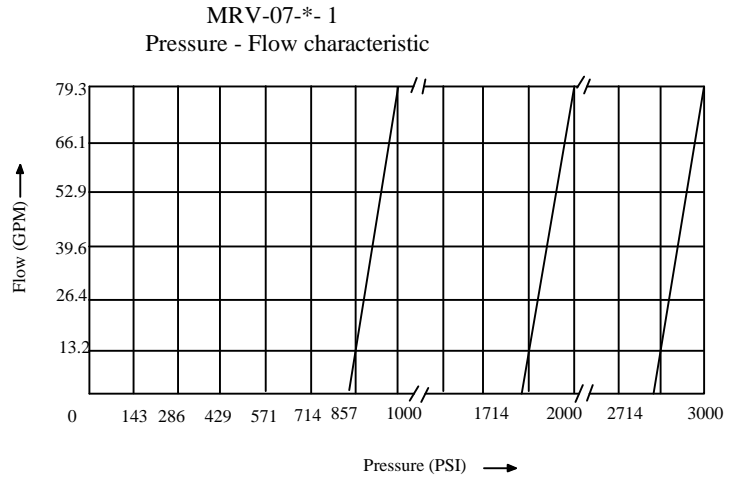
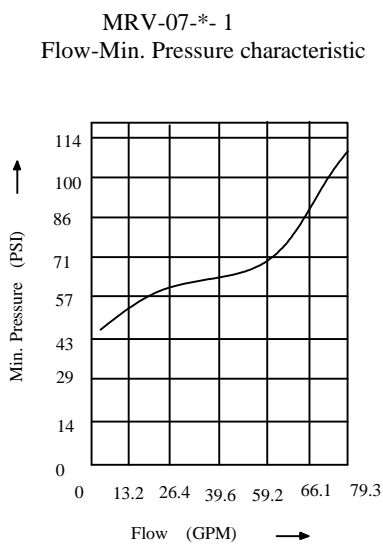
| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI)                                     | WEIGHT lbs |
|------------|------|---------------------|------------------|--|------------|
| MRV-07-P-* | D07  | 4570 PSI            | 79.3             | ① 100 - 1000 PSI<br>② 100 - 2000 PSI<br>③ 100 - 3000 PSI | 15.4       |

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# IFP MRV07 RELIEF VALVE MODULE

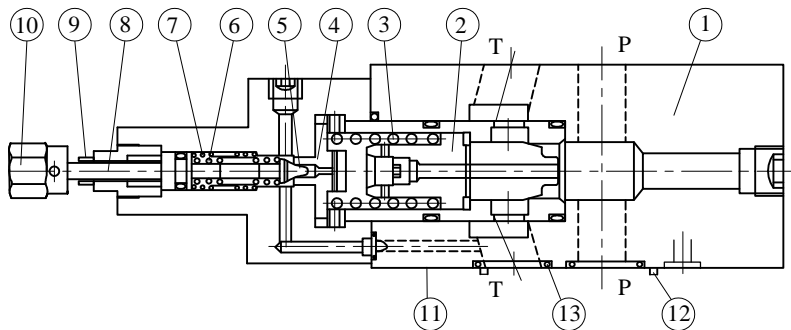


## **PERFORMANCE CURVES** Viscosity (100-150 SUS)



## **CROSS SECTION DIAGRAM**

MRV-07-P-\*



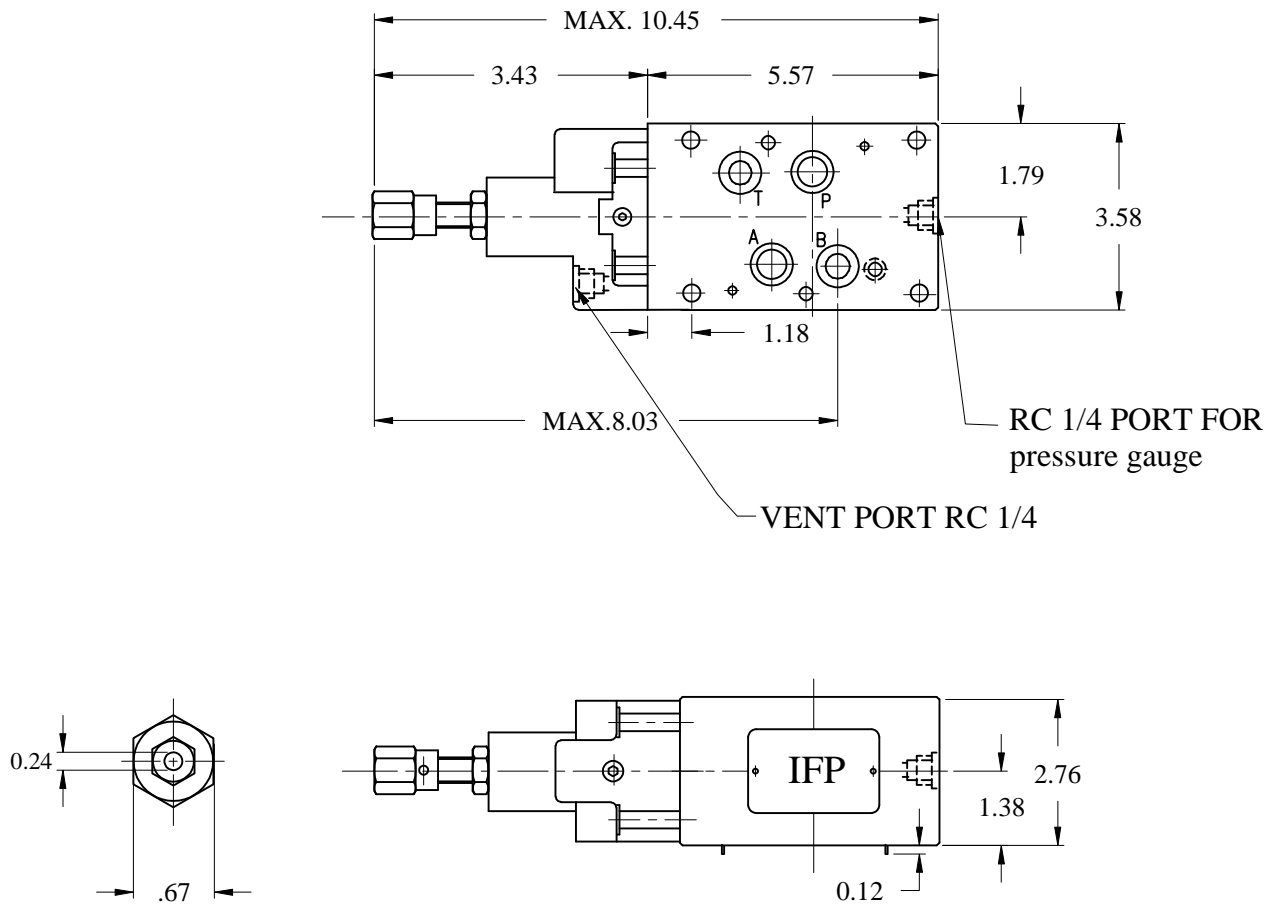
| NO. | DESCRIPTION                          |
|-----|--------------------------------------|
| 1   | BODY                                 |
| 2   | BALANCED POPPET                      |
| 3   | BALANCED POPPET SPRING               |
| 4   | SEAT                                 |
| 5   | PILOT VALVE POPPET                   |
| 6   | SPRING                               |
| 7   | SPRING                               |
| 8   | SCREW                                |
| 9   | NUT                                  |
| 10  | ADJUSTMENT ELEMENT                   |
| 11  | CONNECTIONS TO DIN<br>24340 FROM A16 |
| 12  | LOCATING PIN                         |
| 13  | O-RING                               |
|     | PORTS A, B, P, T: AS568-118          |
|     | PORTS X, Y: AS568-012                |

# IFP MRV07 RELIEF VALVE MODULE



## DIMENSIONS

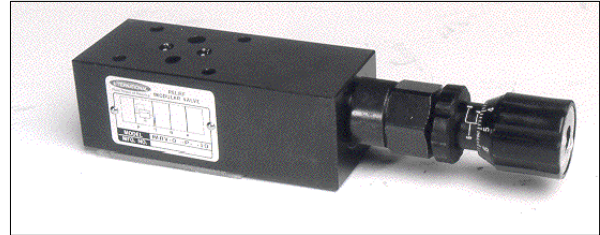
MRV-07-P-\*



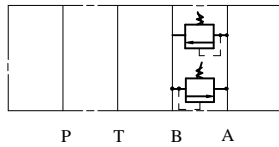
# IFP MBV03 BREAK VALVE MODULE



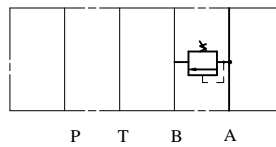
- ISO4401-03 SIZE/NFPA D03
- ADJUSTABLE STANDARD MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- OPTIONAL PRESSURE RANGES
- LOW PRESSURE OVERRIDE



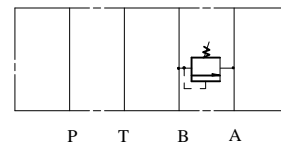
MBV-03-W



MBV-03-A



MBV-03-B



## ORDERING CODE

**MBV - 03 - W - \***

MODULAR BREAK VALVE

SIZE D03

CONTROL PORT  
W ~ A,B PORT  
A ~ A PORT  
B ~ B PORT

PRESSURE RANGE

- ① 10 - 1000 PSI
- ② 500 - 3500 PSI

## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MBV-03-W-* | D03  | 4500 PSI            | 15               | ① 10 - 1000 PSI      | 3.30       |
| MBV-03-A-* |      |                     |                  | ③ 500 - 3500 PSI     | 3.08       |
| MBV-03-B-* |      |                     |                  |                      | 3.08       |

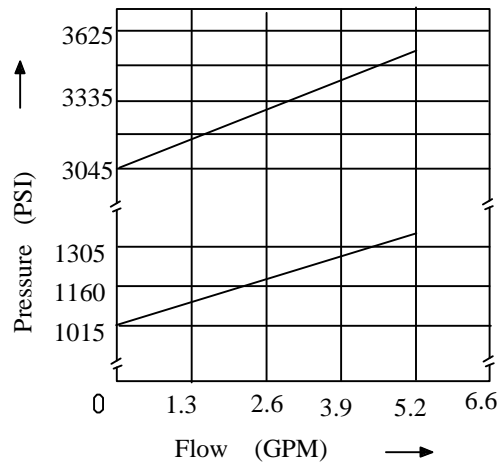
IFP offers a modular Break Valve, designed to protect components against hydraulic and structural damage which can be caused by sudden stopping of inertial loads. They also protect "swing" circuits and other bi-directional installations against surge and cavitation. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFP MBV03 BREAK VALVE MODULE



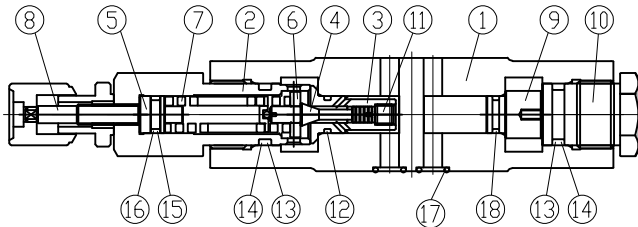
## PERFORMANCE CURVES Viscosity (100-150 SUS)

MBV-03-\*- 1  
Flow - Pressure characteristic



## CROSS SECTION DIAGRAM

MRV-03-\*-\*



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | RETAINER     |
| 3   | SEAT         |
| 4   | POPPET       |
| 5   | SCREW        |
| 6   | O-RING       |
| 7   | SPRING       |
| 8   | KNOB UNIT    |
| 9   | PLUG         |
| 10  | NUT          |
| 11  | O-RING       |
| 12  | O-RING       |
| 13  | O-RING       |
| 14  | BACK-UP RING |
| 15  | O-RING       |
| 16  | BACK-UP RING |
| 17  | O-RING       |
| 18  | O-RING       |

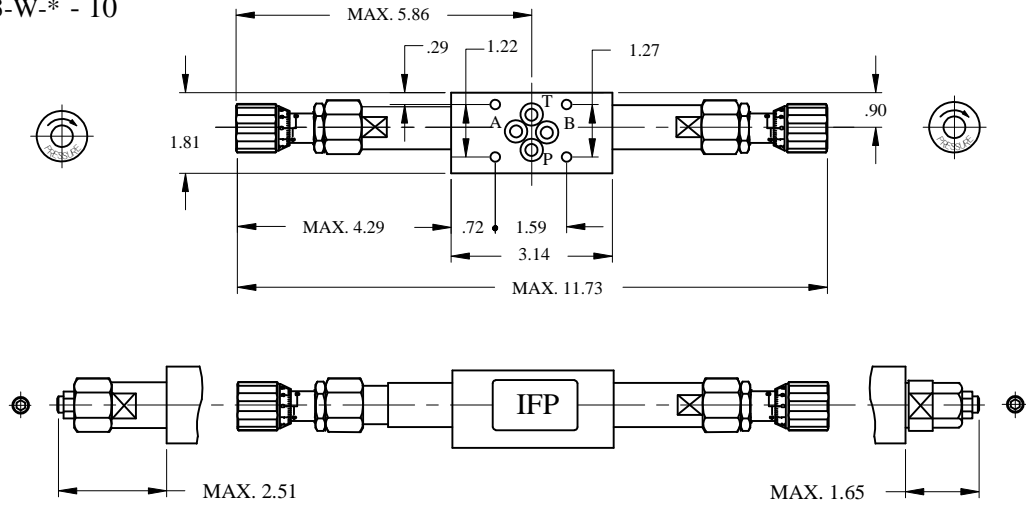
| NO. | PARTS NAME | PARTS NO. | Q'TY |   |   |
|-----|------------|-----------|------|---|---|
|     |            |           | W    | A | B |
| 6   | O-RING     | P5, 90°   | 2    | 1 | 1 |
| 12  | O-RING     | P7, 90°   | 2    | 1 | 1 |
| 13  | O-RING     | P5, 90°   | 2    | 2 | 2 |
| 15  | O-RING     | P14, 70°  | 2    | 1 | 1 |
| 17  | O-RING     | P7, 90°   | 4    | 4 | 4 |
| 18  | O-RING     | P7, 70°   | 0    | 1 | 1 |

# IFP MBV03 BREAK VALVE MODULE

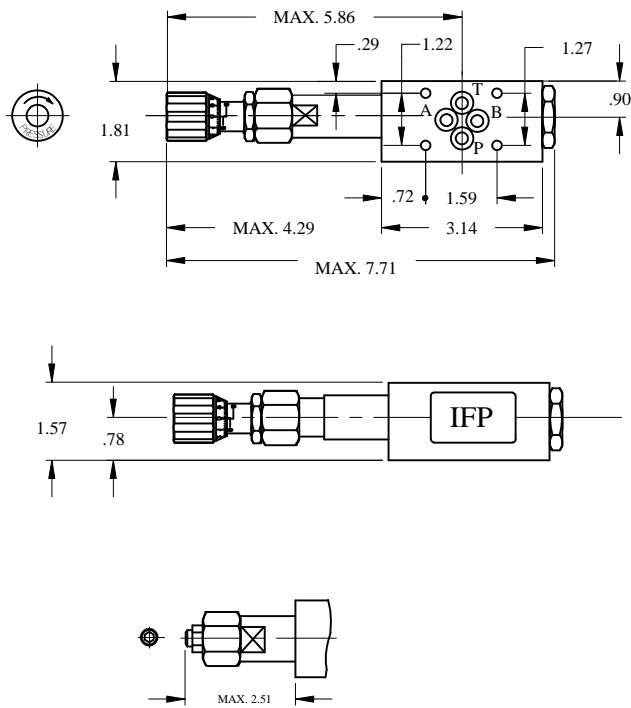


## DIMENSIONS

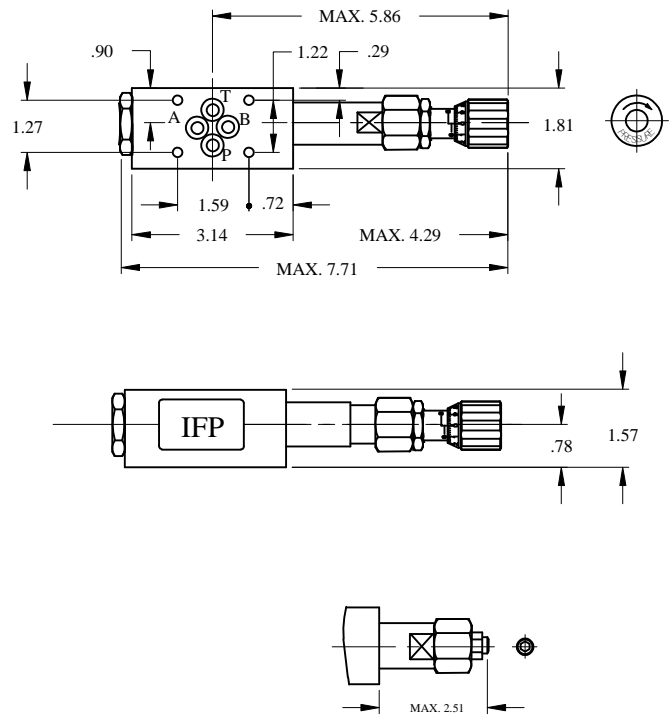
MBV-03-W-\* - 10



MBV-03-A-\* - 10



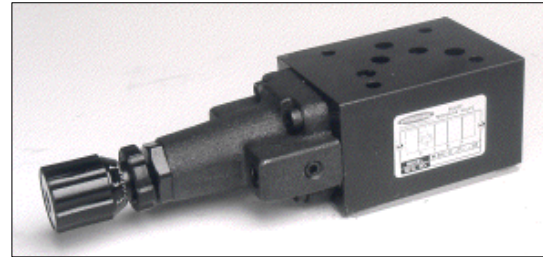
MBV-03-A-\* - 10



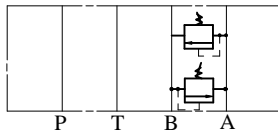
# IFP MBV05 BREAK VALVE MODULE



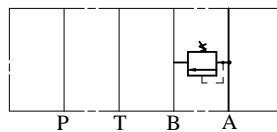
- ISO4401-05 SIZE/NFPA D05
- ADJUSTABLE MICROMETER KNOB STANDARD
- EXTREMELY PRECISE CONTROL
- OPTIONAL PRESSURE RANGES
- LOW PRESSURE OVERRIDE



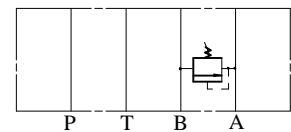
MBV-05-W



MBV-05-A



MBV-05-B



## ORDERING CODE

**MBV - 05 - W - \***

MODULAR BREAK VALVE

SIZE D05

CONTROL PORT  
W ~ A,B PORT  
A ~ A PORT  
B ~ B PORT

PRESSURE RANGE

- ① 10 - 1000 PSI
- ② 500 - 3500 PSI

## SPECIFICATIONS

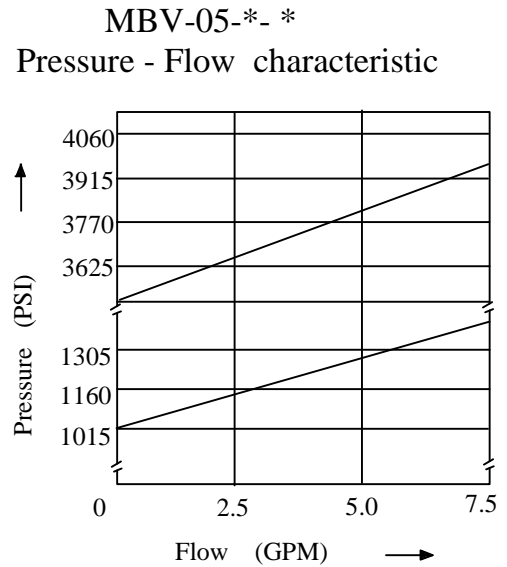
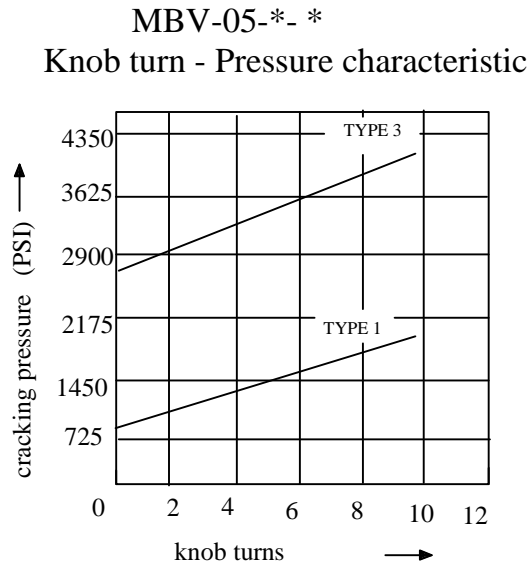
| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MBV-05-W-* | D05  | 4500 PSI            | 30               | ① 10 - 1000 PSI      | 10.50      |
| MBV-05-A-* |      |                     |                  | ③ 500 - 3500 PSI     | 8.80       |
| MBV-05-B-* |      |                     |                  |                      | 8.80       |

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# IFP MBV05 BREAK VALVE MODULE

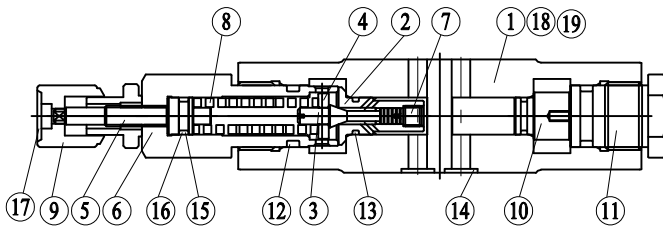


## PERFORMANCE CURVES Viscosity (100-150 SUS)



## CROSS SECTION DIAGRAM

MBV-05-\*-\*



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | SEAT         |
| 3   | POPPET       |
| 4   | GUIDE        |
| 5   | SCREW        |
| 6   | RETAINER     |
| 7   | ORIFICE      |
| 8   | SPRING       |
| 9   | KNOB UNIT    |
| 10  | PLUG         |
| 11  | NUT          |
| 12  | O-RING       |
| 13  | O-RING       |
| 14  | O-RING       |
| 15  | O-RING       |
| 16  | BACK-UP RING |
| 17  | PLATE        |
| 18  | NAME PLATE   |
| 19  | RIVET        |

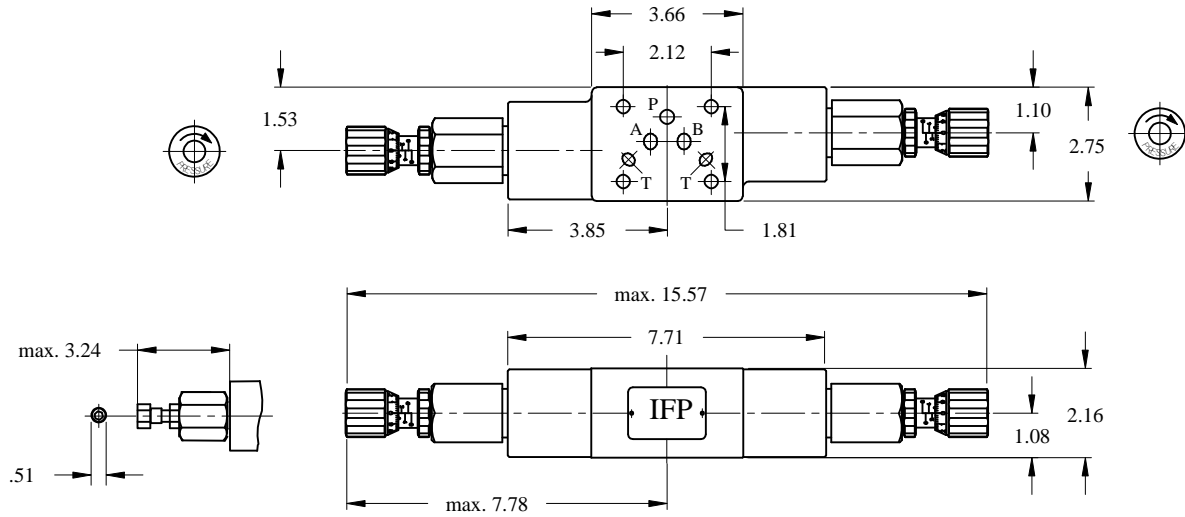
| NO. | PARTS NAME | PARTS NO.  | Q'TY |   |   |
|-----|------------|------------|------|---|---|
|     |            |            | W    | A | B |
| 12  | O-RING     | P30,90°    | 2    | 2 | 2 |
| 13  | O-RING     | P14,90°    | 2    | 2 | 2 |
| 15  | O-RING     | AS-568-014 | 5    | 5 | 5 |
| 15  | O-RING     | P14,70°    | 2    | 1 | 1 |

# IFP MBV05 BREAK VALVE MODULE



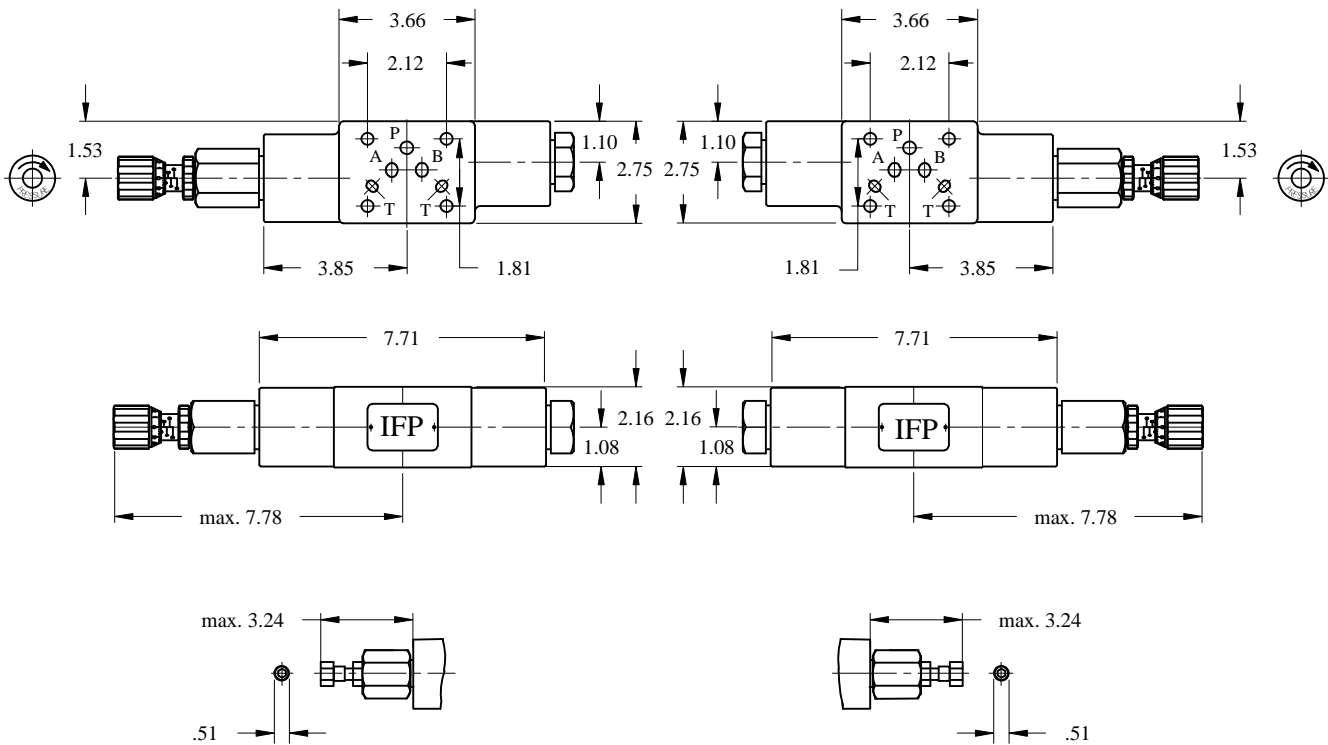
## DIMENSIONS

MBV-05-W-\* - 10



MBV-05-A-\* - 10

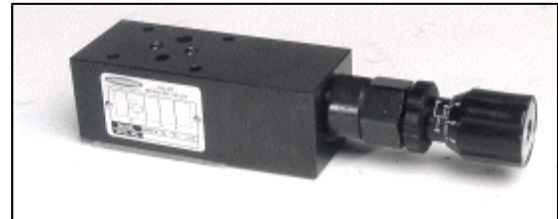
MBV-05-B-\* - 10



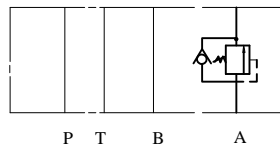
# IFP MCB03 COUNTER BALANCE MODULE



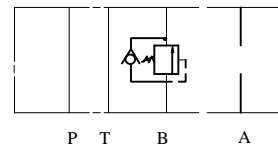
- ISO4401-03 SIZE/NFPA D03
- ADJUSTABLE MICROMETER KNOB STANDARD
- EXTREMELY PRECISE CONTROL
- LOW PRESSURE OVERRIDE



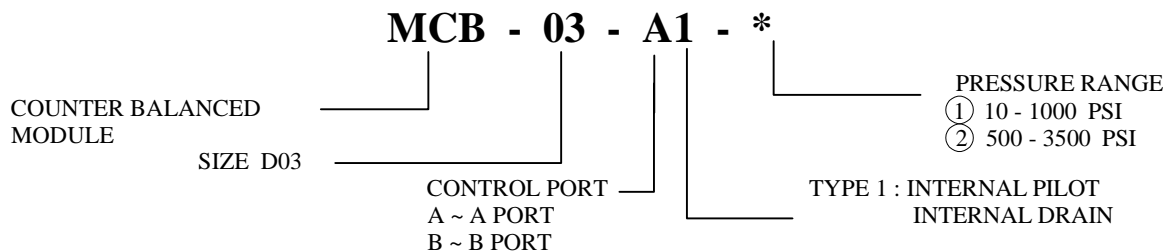
MCB-03-A



MCB-03-B



## ORDERING CODE



## SPECIFICATIONS

| TYPES       | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|-------------|------|---------------------|------------------|----------------------|------------|
| MCB-03-A1-* | D03  | 4500 PSI            | 15               | ① 10 - 1000 PSI      | 2.40       |
| MCB-03-B1-* |      |                     |                  | ③ 500 - 3500 PSI     | 2.40       |

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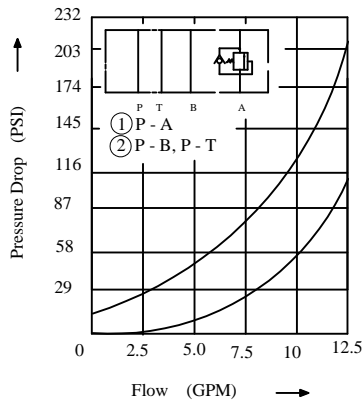
# IFP MCB03 COUNTER BALANCE MODULE



## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

MCB-03-A1-\*

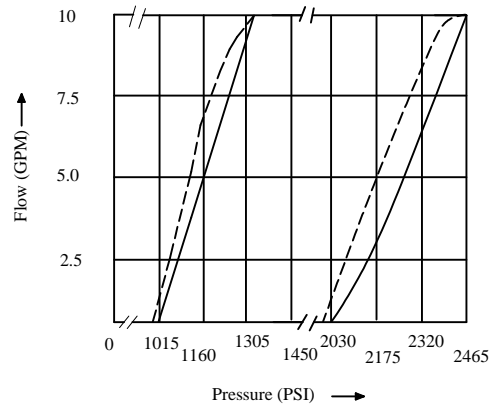
Pressure Drop characteristic



MCB-03-A1- \*  
B1

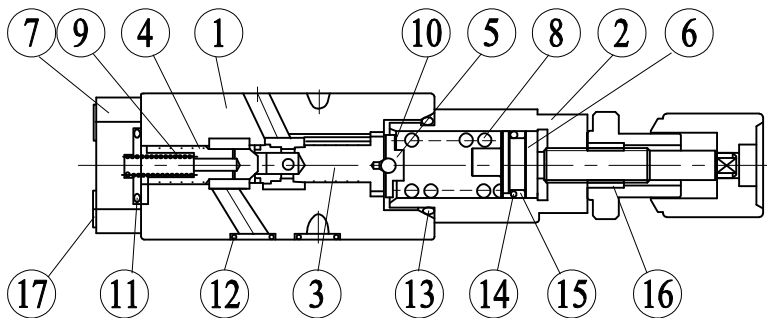
Pressure - Flow characteristic

————— PRESSURE INCREASE  
- - - - - PRESSURE DECREASE



## **CROSS SECTION DIAGRAM**

MCB-03-A1-\*



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | RETAINER     |
| 3   | SPOOL        |
| 4   | POPPET       |
| 5   | GUIDE        |
| 6   | SCREW        |
| 7   | COVER        |
| 8   | SPRING       |
| 9   | SPRING       |
| 10  | BALL         |
| 11  | O-RING       |
| 12  | O-RING       |
| 13  | O-RING       |
| 14  | O-RING       |
| 15  | BACK-UP RING |
| 16  | KNOB UNIT    |
| 17  | SCREW        |

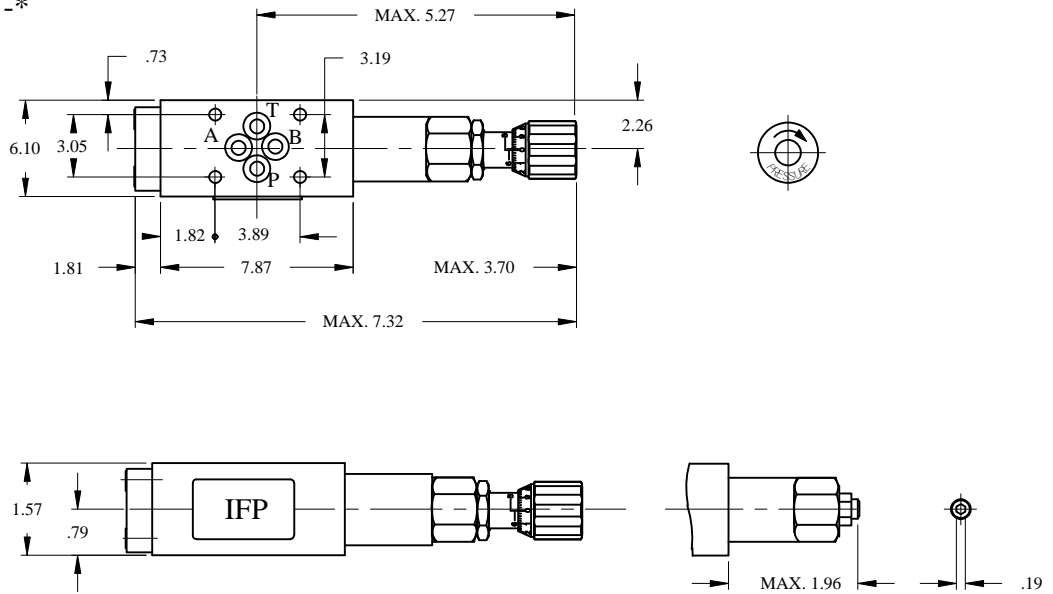
| NO. | PARTS NAME | PARTS NO. | Q'TY |
|-----|------------|-----------|------|
| 11  | O-RING     | P16, 90°  | 1    |
| 12  | O-RING     | P9, 90°   | 4    |
| 13  | O-RING     | P22, 90°  | 1    |
| 14  | O-RING     | P14, 70°  | 1    |

# IFP MCB03 COUNTER BALANCE MODULE

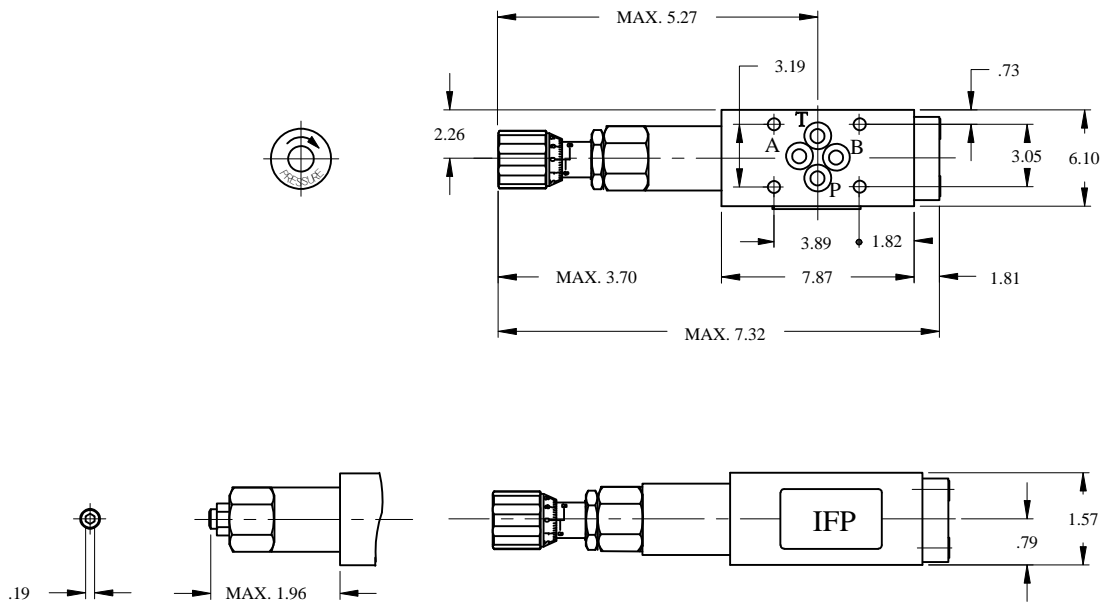


## DIMENSIONS

MCB-03-A1-\*



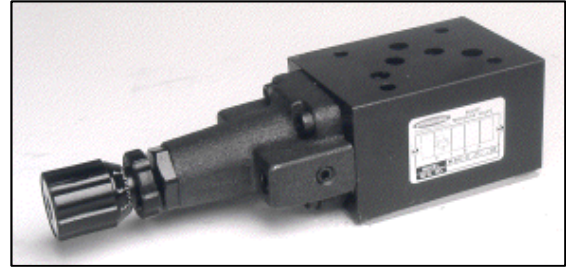
MCB-03-B1-\*



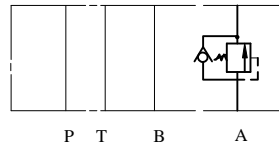
# IFP MCB05 COUNTER BALANCE MODULE



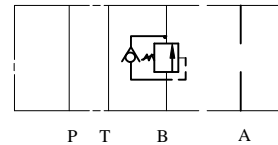
- ISO4401-05 SIZE/NFPA D05
- ADJUSTABLE MICROMETER KNOB STANDARD
- EXTREMELY PRECISE CONTROL
- LOW PRESSURE OVERRIDE



MCB-05-A



MCB-05-B



## ORDERING CODE

**MCB - 05 - A1 - \***

COUNTER BALANCED  
MODULAR VALVE  
SIZE D05

CONTROL PORT  
A ~ A PORT  
B ~ B PORT

PRESSURE RANGE  
① 50 - 125 PSI  
② 125 - 500 PSI  
3 500 - 3000 PSI

TYPE 1 : INTERNAL PILOT  
INTERNAL DRAIN

## SPECIFICATIONS

| TYPES       | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|-------------|------|---------------------|------------------|----------------------|------------|
| MCB-05-A1-* | D05  | 4500 PSI            | 30               | ① 50 - 125 PSI       | 7.70       |
| MCB-05-B1-* |      |                     |                  | ② 125 - 500 PSI      |            |
|             |      |                     |                  | ③ 500 - 3000 PSI     |            |

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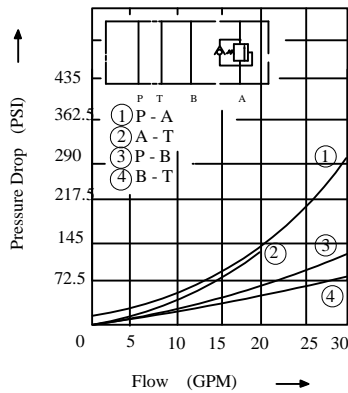
# IFP MCB05 COUNTER BALANCE MODULE



## PERFORMANCE CURVES Viscosity (100-150 SUS)

MCB-05-A1-\*

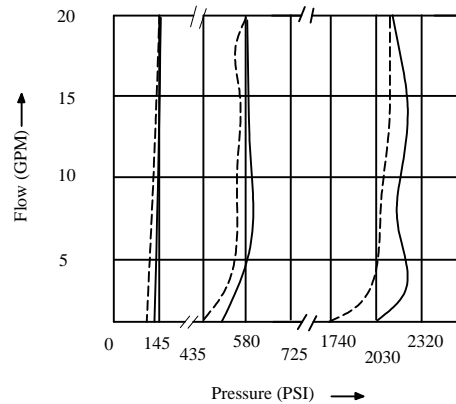
Pressure Drop characteristic



MCB-05-A1- \*  
B1

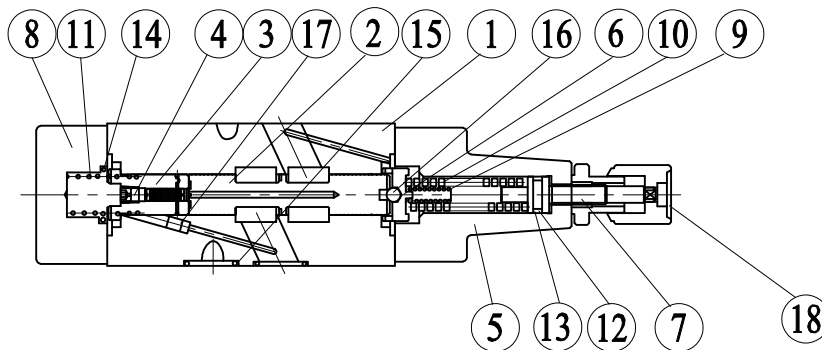
Pressure - Flow characteristic

————— PRESSURE INCREASE  
- - - - - PRESSURE DECREASE



## CROSS SECTION DIAGRAM

MCB-05-A1-1



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | SPOOL        |
| 3   | SPOOL        |
| 4   | SLEEVE       |
| 5   | COVER        |
| 6   | GUIDE        |
| 7   | SCREW        |
| 8   | COVER        |
| 9   | SPRING       |
| 10  | SPRING       |
| 11  | O-RING       |
| 12  | BACK-UP RING |
| 13  | O-RING       |
| 14  | O-RING       |
| 15  | O-RING       |
| 16  | BALL         |
| 17  | ORIFICE      |
| 18  | PLATE        |

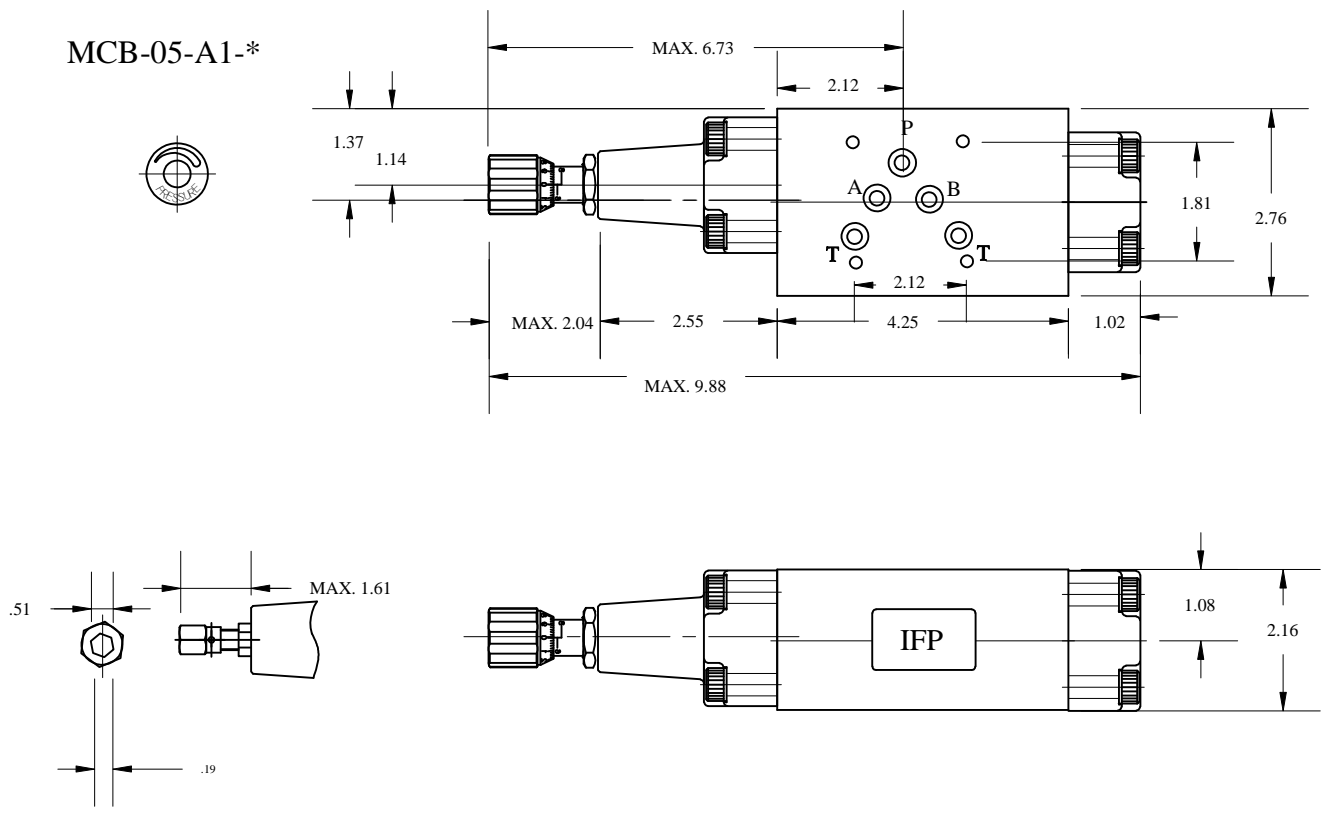
| NO. | PARTS NAME | PARTS NO.  | Q'TY |
|-----|------------|------------|------|
| 13  | O-RING     | P8, 70°    | 1    |
| 14  | O-RING     | P26, 90°   | 2    |
| 15  | O-RING     | AS-568-014 | 5    |

# IFP MCB05 COUNTER BALANCE MODULE

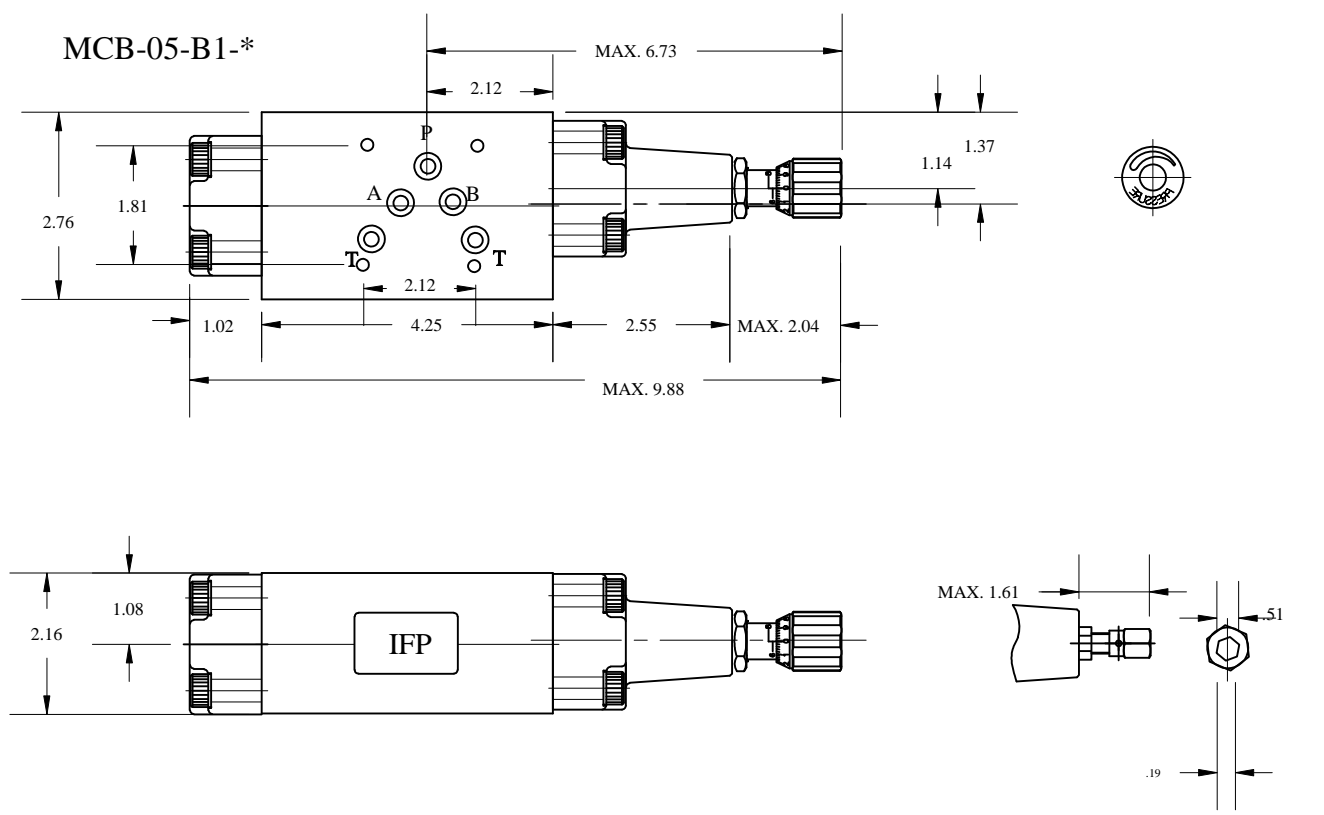


## DIMENSIONS

MCB-05-A1-\*



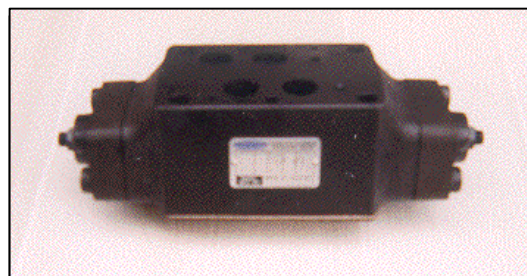
MCB-05-B1-\*



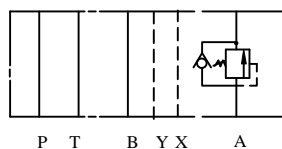
# IFP MCB07 COUNTER BALANCE MODULE



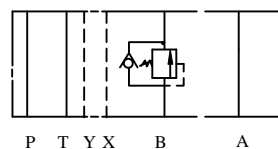
- ISO4401-07 SIZE/NFPA D07
- EASY ADJUSTABLE KNOB
- EXTREMELY PRECISE CONTROL
- LOW PRESSURE OVERRIDE



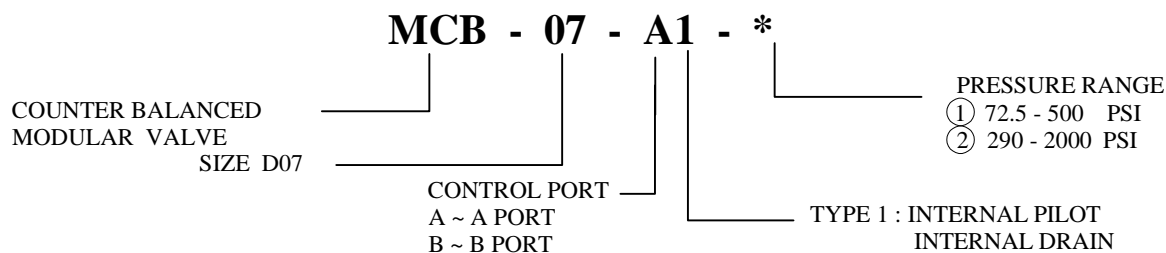
MCB-07-A



MCB-07-B



## ORDERING CODE



## SPECIFICATIONS

| TYPES       | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|-------------|------|---------------------|------------------|----------------------|------------|
| MCB-07-A1-* | D07  | 4570 PSI            | 79.3             | ① 72.5 - 500 PSI     | 17.70      |
| MCB-07-B1-* |      |                     |                  | ② 290 - 2030 PSI     |            |

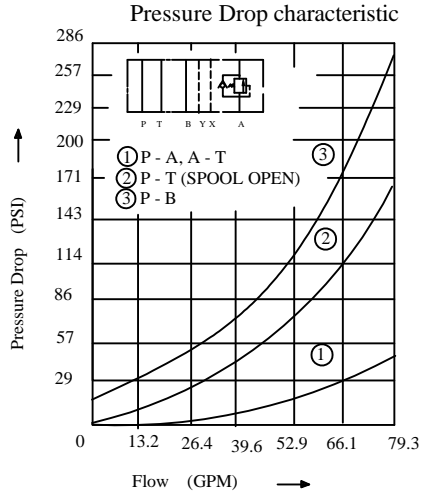
IFP offer a modular Counter Balanced Valve designed for use in applications requiring a valve to restrain flow and prevent cavitation by keeping the load from running ahead of the pump. They also serve as safety devices in case of line breakage, provide thermal relief protection in blocked systems, and can function as a deceleration valve. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFP MCB07 COUNTER BALANCE MODULE



## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

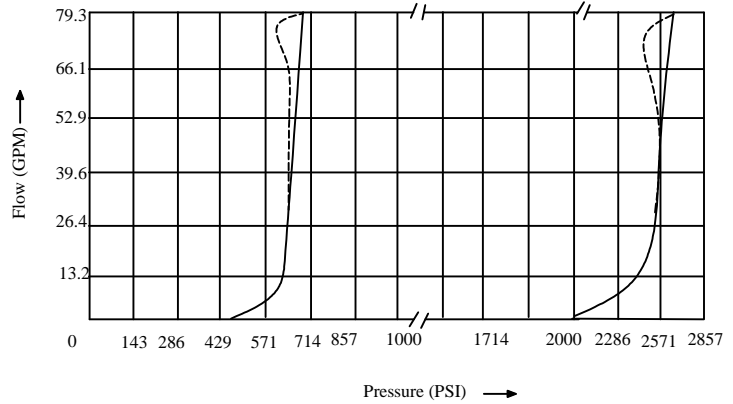
MCB-07-P-\*



MCB-07-P-\*

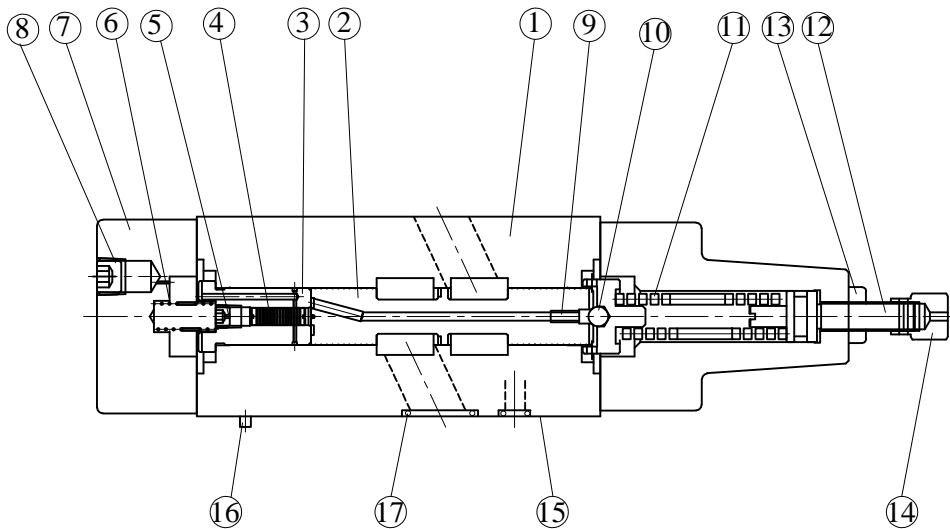
Pressure - Flow characteristic

———— MCB-07-A1-\* pressure increasing  
- - - - - MCB-07-B1-\* pressure decreasing



## **CROSS SECTION DIAGRAM**

MCB-07-P-\*



NO. DESCRIPTION

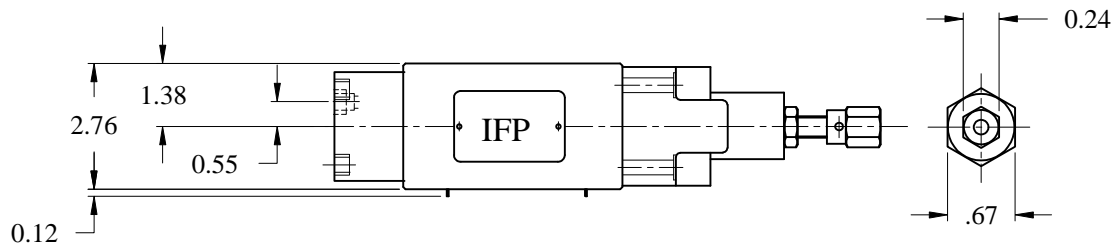
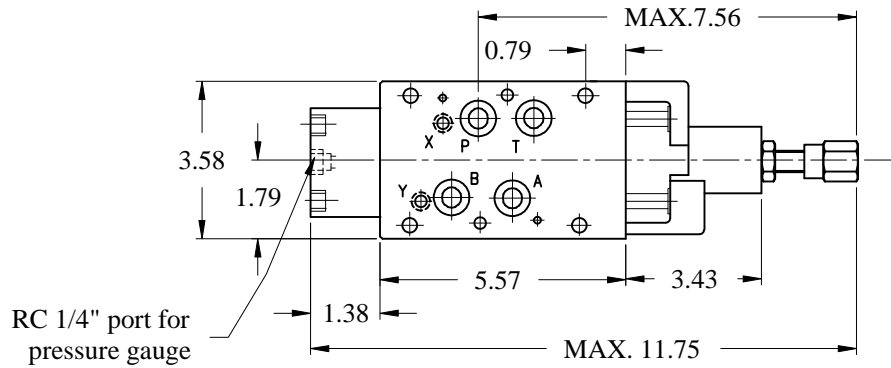
|    |                         |
|----|-------------------------|
| 1  | BODY                    |
| 2  | SPOOL                   |
| 3  | SLEEVE                  |
| 4  | PISTON                  |
| 5  | CHOKE                   |
| 6  | SPRING                  |
| 7  | COVER                   |
| 8  | PLUG                    |
| 9  | CHOKE                   |
| 10 | BALL                    |
| 11 | SPRING                  |
| 12 | SCREW                   |
| 13 | NUT                     |
| 14 | ADJUSTMENT ELEMENT      |
| 15 | CONNECTIONS             |
| 16 | PIN                     |
| 17 | O-RING                  |
|    | PORTS A,B,P,T:AS568-118 |
|    | PORTS X,Y:AS568-012     |

# IFP MCB07 COUNTER BALANCE MODULE

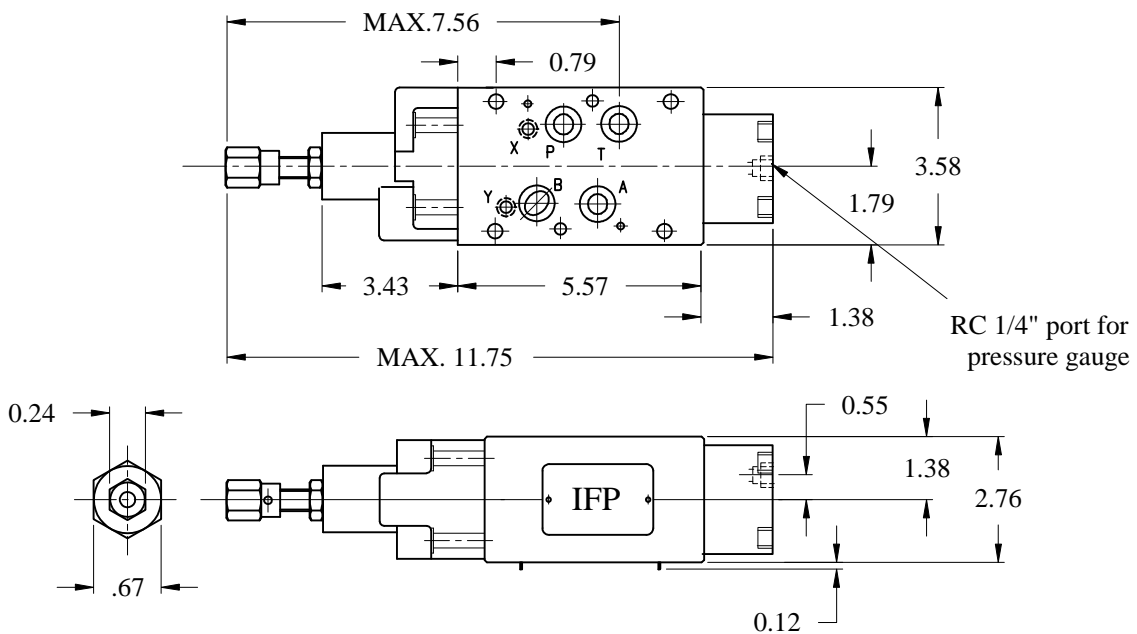


## DIMENSIONS

MCB-07-A1-\*



MCB - 07 - B1 - \*



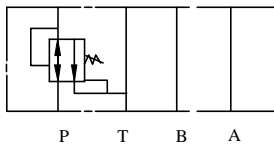
# IFP MGV03 PRESSURE REDUCING/ RELIEVING MODULE



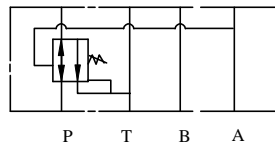
- ISO4401-03 SIZE/NFPA D03
- EASY ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- FOUR PRESSURE RANGES AVAILABLE
- ADDED PRESSURE RELIEVING FUNCTION
- OPTIONAL GAUGE PORT



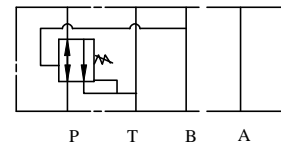
MGV-03-P



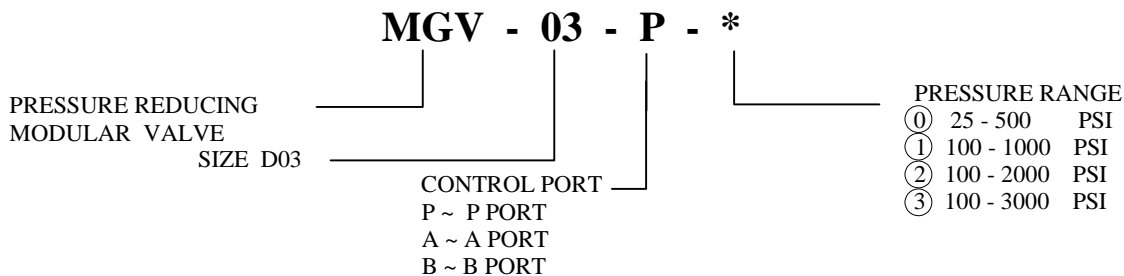
MGV-03-A



MGV-03-B



## ORDERING CODE



## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MGV-03-P-* | D03  | 4500 PSI            | 15               | ① 25 - 500 PSI       | 2.80       |
| MGV-03-A-* |      |                     |                  | ② 100 - 1000 PSI     |            |
| MGV-03-B-* |      |                     |                  | ③ 100 - 2000 PSI     |            |
|            |      |                     |                  | ④ 100 - 3000 PSI     |            |

IFP offers a modular Pressure Reducing Valve designed for use in applications requiring constant (lower) secondary hydraulic system pressure, regardless of variations in the primary system. Excessive pressure in the reduced pressure line is limited by a pressure relieving function. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

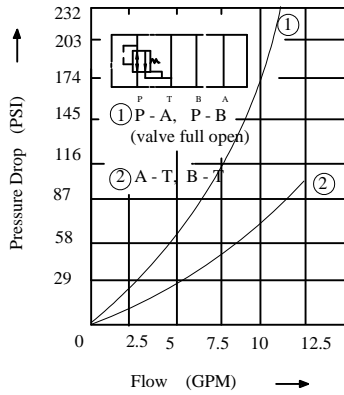
# IFP MGV03 PRESSURE REDUCING/ RELIEVING MODULE



## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

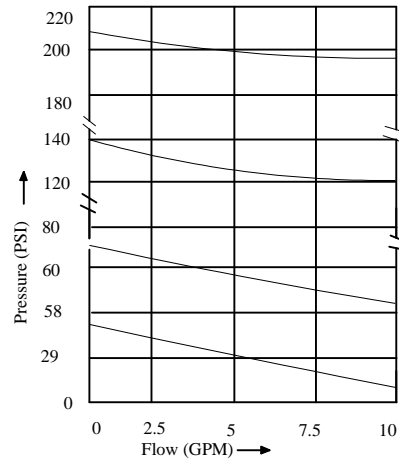
MGV-03-P-\*

Pressure Drop characteristic



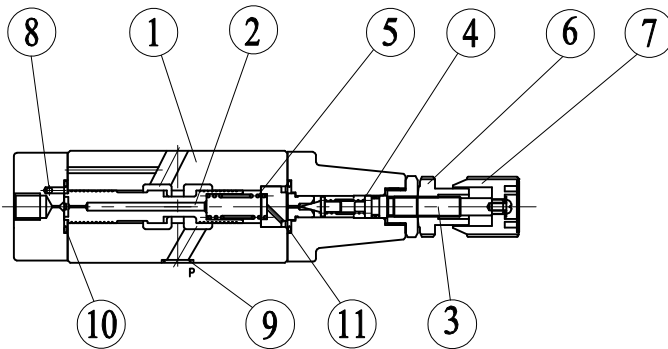
MGV-03-\* - \*

Pressure - Flow characteristic



## **CROSS SECTION DIAGRAM**

MGV-03-P-2



| NO. | DESCRIPTION       |
|-----|-------------------|
| 1   | BODY              |
| 2   | SPOOL             |
| 3   | SETTING SCREW     |
| 4   | SPRING            |
| 5   | SPRING            |
| 6   | LOCKING NUT       |
| 7   | AJUSTMENT ELEMENT |
| 8   | O-RING            |
| 9   | O-RING            |
| 10  | O-RING            |
| 11  | O-RING            |

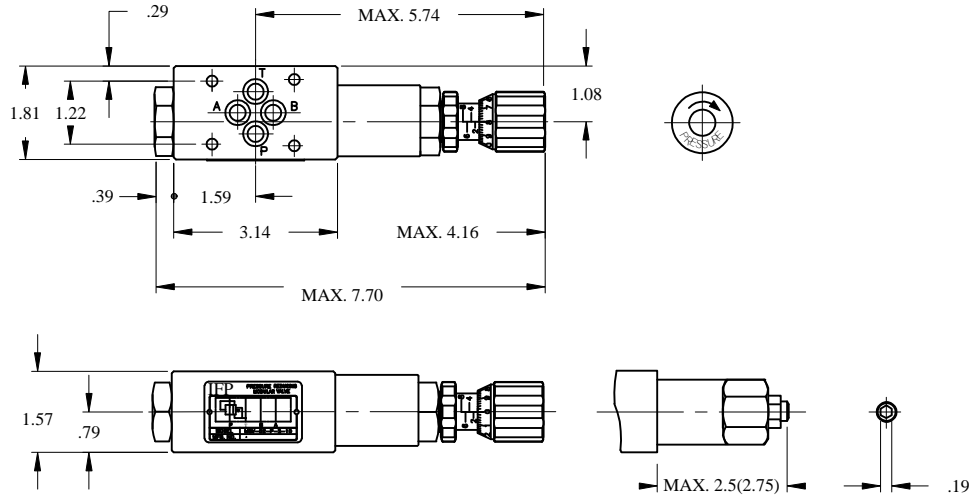
| NO. | PARTS NAME | PARTS NO.  | Q'TY |
|-----|------------|------------|------|
| 9   | O-RING     | P8, 70°    | 1    |
| 10  | O-RING     | P26, 90°   | 2    |
| 11  | O-RING     | AS-568-014 | 5    |

# IFP MGV03 PRESSURE REDUCING/ RELIEVING MODULE

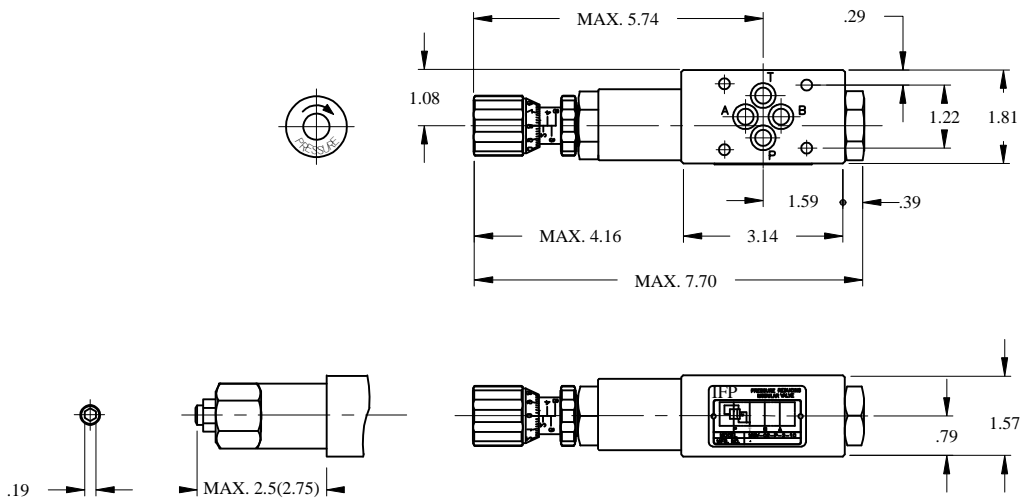


## DIMENSIONS

MGV-03-P-\*



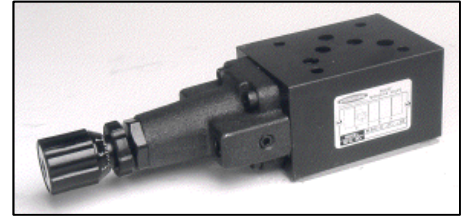
MGV-03-B-\*



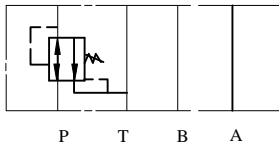
# IFP MGV05 PRESSURE REDUCING/ RELIEVING MODULE



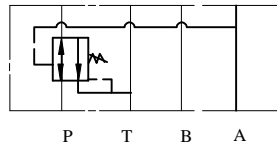
- ISO4401-05 SIZE/NFPA D05
- EASY ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- FOUR PRESSURE RANGES AVAILABLE
- ADDED PRESSURE RELIEVING FUNCTION  
OPTIONAL GAUGE PORT



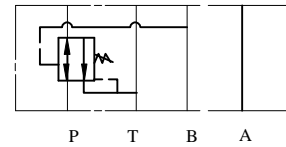
MGV-05-P



MGV-05-A



MGV-05-B



## ORDERING CODE

**MGV - 05 - P - \***

PRESSURE REDUCING  
MODULAR VALVE  
SIZE D05

CONTROL PORT  
P ~ P PORT  
A ~ A PORT  
B ~ B PORT

PRESSURE RANGE

- ① 40 - 500 PSI
- ① 100 - 1000 PSI
- ② 100 - 2000 PSI
- ③ 100 - 3000 PSI

## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MGV-05-P-* | D05  | 4500 PSI            | 30               | ① 40 - 500 PSI       | 8.30       |
| MGV-05-A-* |      |                     |                  | ① 100 - 1000 PSI     |            |
| MGV-05-B-* |      |                     |                  | ② 100 - 2000 PSI     |            |
|            |      |                     |                  | ③ 100 - 3000 PSI     |            |

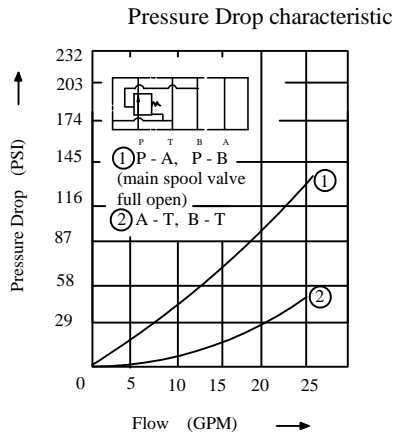
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# IFP MGV05 PRESSURE REDUCING/ RELIEVING MODULE

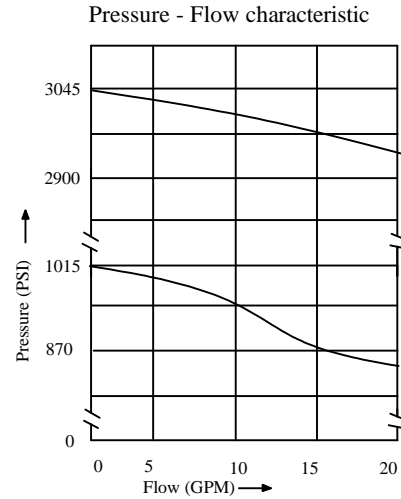


## PERFORMANCE CURVES Viscosity (100-150 SUS)

MGV-05-P-1  
B

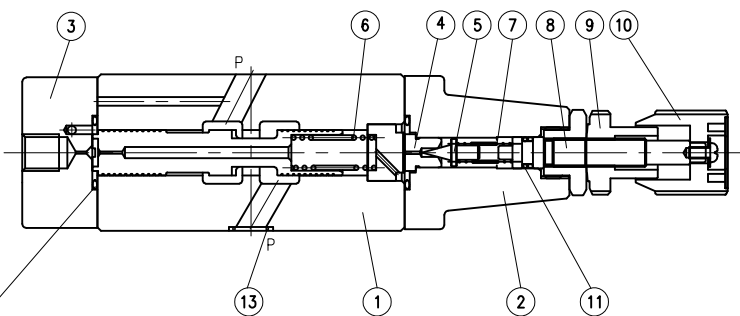


MGV-05-\* - 1  
3

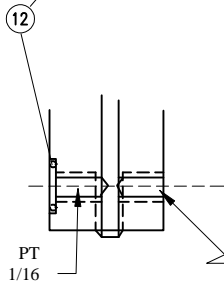


## CROSS SECTION DIAGRAM

MGV-05-A-\*



| NO. | DESCRIPTION        |
|-----|--------------------|
| 1   | BODY               |
| 2   | COVER              |
| 3   | COVER              |
| 4   | SEAT               |
| 5   | POPPET             |
| 6   | AJUSTMENT SPRING 1 |
| 7   | AJUSTMENT SPRING 2 |
| 8   | SETTING SCREW      |
| 9   | LOCKING NUT        |
| 10  | AJUSTMENT ELEMENT  |
| 11  | O-RING             |
| 12  | O-RING             |
| 13  | O-RING             |



| NO. | PARTS NAME | PARTS NO.  | Q'TY |
|-----|------------|------------|------|
| 12  | O-RING     | P8, 70°    | 1    |
| 13  | O-RING     | P22, 90°   | 2    |
| 14  | O-RING     | AS-568-014 | 5    |

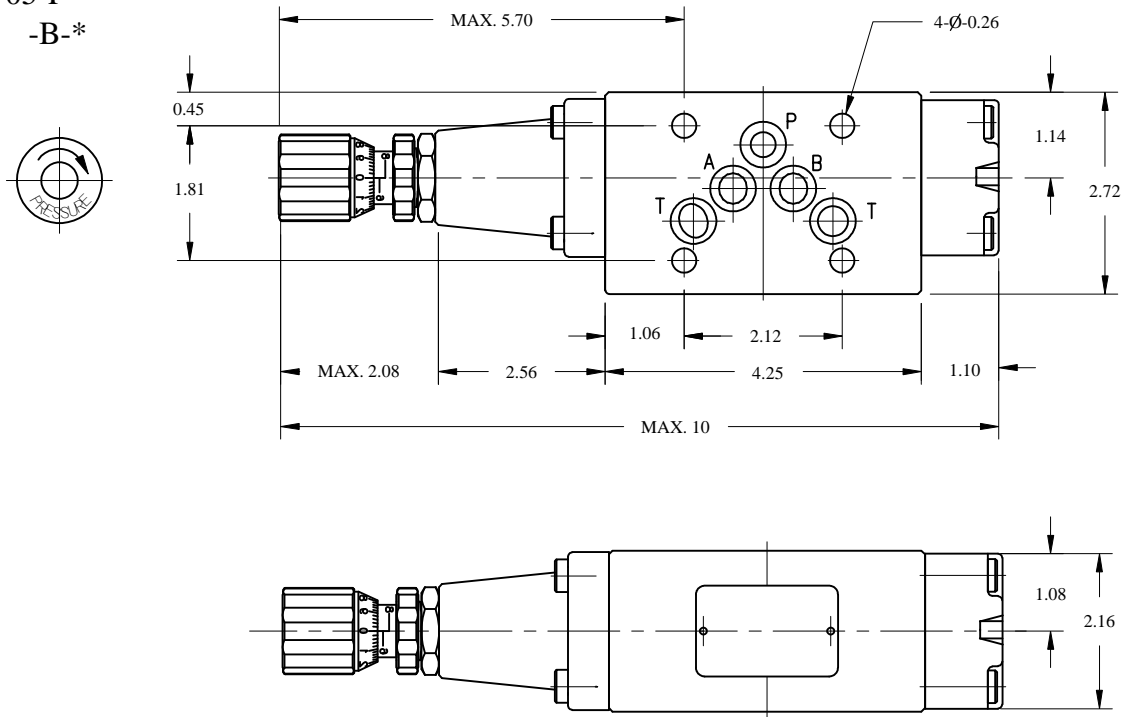
DRAIN PORT PT 1/8

# IFP MGV05 PRESSURE REDUCING/ RELIEVING MODULE

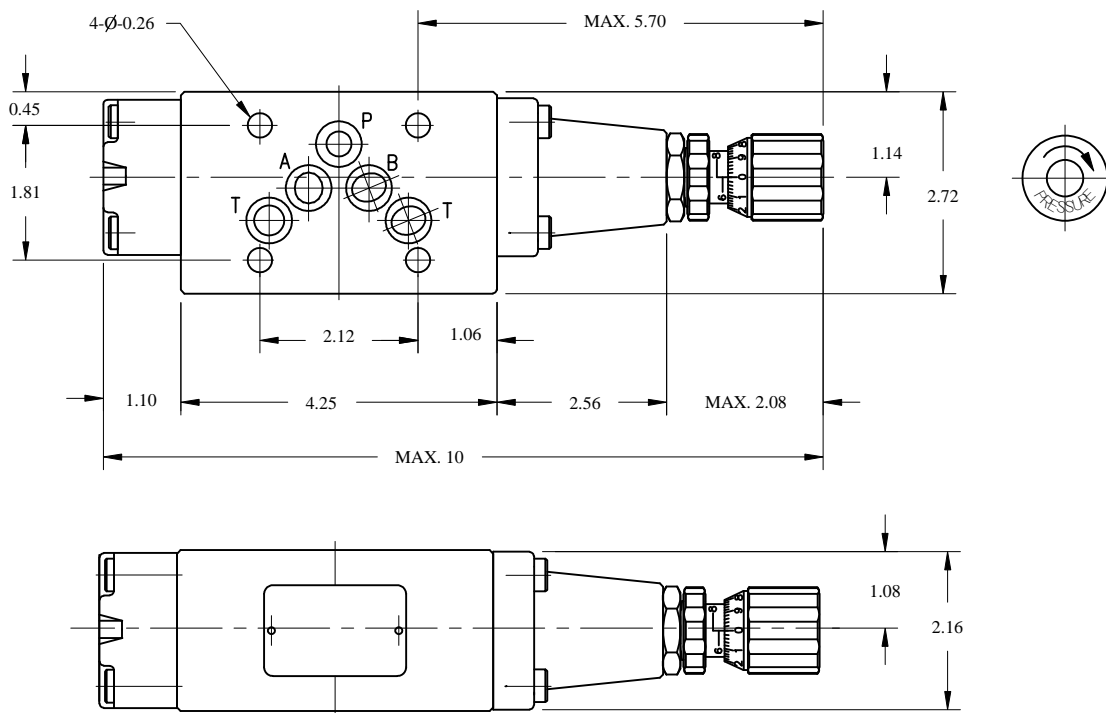


## ***DIMENSIONS***

MCB-05-P-\*  
-B-\*



MCB-05-A-\*



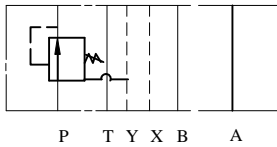
# IFP MGV07 PRESSURE REDUCING/ RELIEVING VALVE MODULE



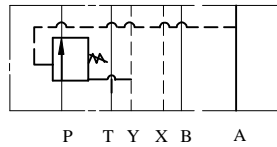
- ISO4401-07 SIZE/NFPA D07
- EASY ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- FOUR PRESSURE RANGES AVAILABLE
- ADDED PRESSURE RELIEVING FUNCTION  
OPTIONAL GAUGE PORT



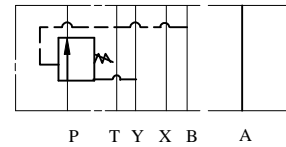
MGV-07-P



MGV-07-A



MGV-07-B



## ORDERING CODE

**MGV - 07 - P - 1**

PRESSURE REDUCING  
MODULAR VALVE  
SIZE D07

CONTROL PORT  
P ~ P PORT  
A ~ A PORT  
B ~ B PORT

PRESSURE RANGE  
① 100 - 1000 PSI  
② 100 - 2000 PSI  
③ 100 - 3000 PSI

## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MGV-07-P-* | D07  | 4570 PSI            | 26.5             | ① 100 - 1000 PSI     | 17.6       |
| MGV-07-A-* |      |                     |                  | ② 100 - 2000 PSI     |            |
| MGV-07-B-* |      |                     |                  | ③ 100 - 3000 PSI     |            |

IFP offers a modular Pressure Reducing Valve designed for use in applications requiring constant (lower) secondary hydraulic system pressure, regardless of variations in the primary system. Excessive pressure in the reduced pressure line is limited by a pressure relieving function. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

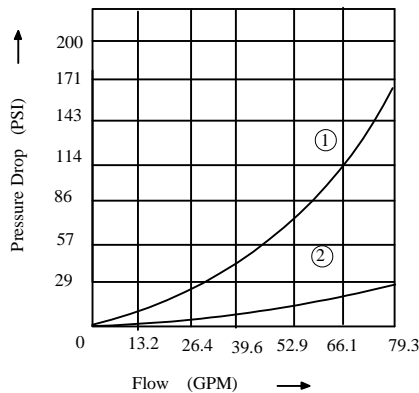
# IFP MGV07 PRESSURE REDUCING/ RELIEVING VALVE MODULE



## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

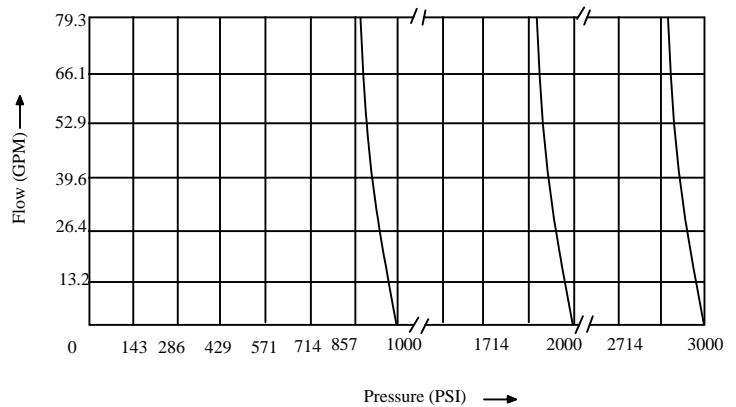
MGV-07-P-\*

Pressure Drop characteristic



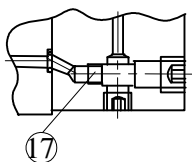
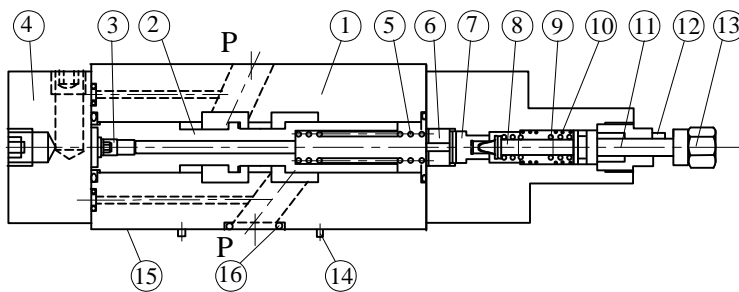
MGV-07-P-\*

Pressure - Flow characteristic



## **CROSS SECTION DIAGRAM**

MGV-07-P-\*



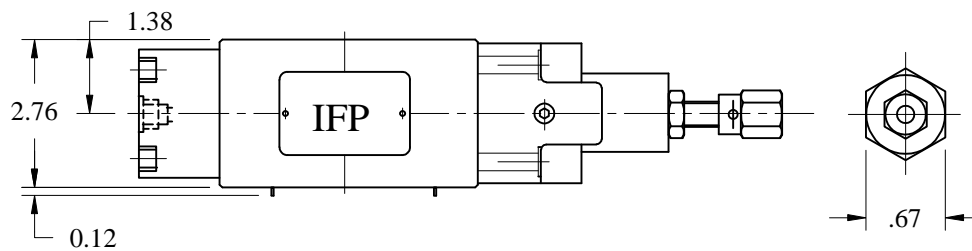
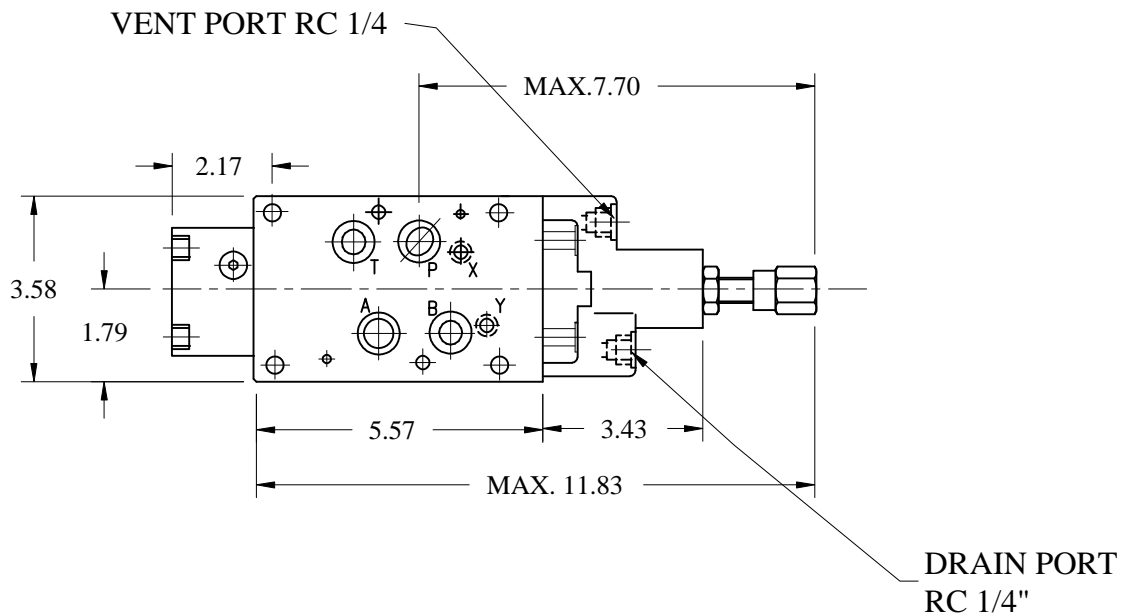
| NO. | DESCRIPTION             |
|-----|-------------------------|
| 1   | BODY                    |
| 2   | SPOOL                   |
| 3   | CHOKE                   |
| 4   | COVER                   |
| 5   | SPRING                  |
| 6   | COLLAR                  |
| 7   | SEAT                    |
| 8   | POPPET                  |
| 9   | SPRING                  |
| 10  | SPRING                  |
| 11  | SCREW                   |
| 12  | NUT                     |
| 13  | ADJUSTMENT ELEMENT      |
| 14  | LOCATING PINS           |
| 15  | CONNECTIONS             |
| 16  | O-RING                  |
|     | PORTS A,B,P,T:AS568-118 |
|     | PORTS X,Y:AS568-012     |
| 17  | PLUG                    |
|     | EXTERNAL: 17 PLUGGED    |
|     | INTERNAL: 17 OPEN       |

# IFP MGV07 PRESSURE REDUCING VALVE MODULE



## DIMENSIONS

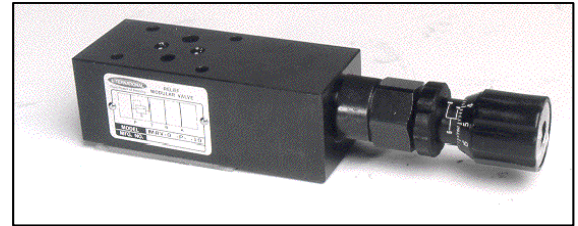
MGV-07-P-\*



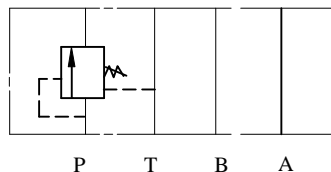
# IFP MSV03 SEQUENCE VALVE MODULE



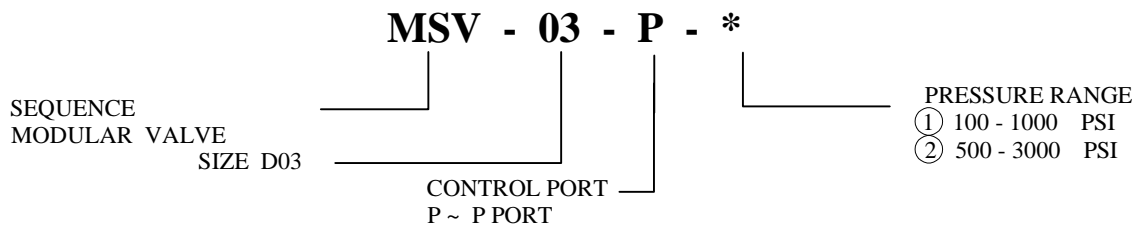
- ISO4401-03 SIZE/NFPA D03
- ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- OPTIONAL PRESSURE RANGES AVAILABLE
- LOW PRESSURE OVERRIDE



MSV-03-P



## ORDERING CODE



## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MSV-03-P-* | D03  | 4500 PSI            | 15               | ① 100 - 1000 PSI     | 2.40       |
|            |      |                     |                  | ② 500 - 3000 PSI     |            |

IFP offers a modular Sequence Valve designed for use in applications requiring an adjustable regulating valve to control operational sequence of two or more hydraulic actuators and to assure priority hydraulic pressure to one part of a circuit before another. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFP MSV03 SEQUENCE VALVE MODULE

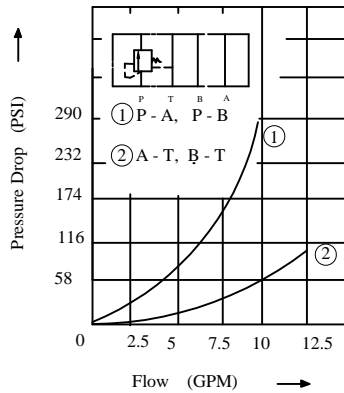


## PERFORMANCE CURVES Viscosity (100-150 SUS)

MSV-03-P2- \*

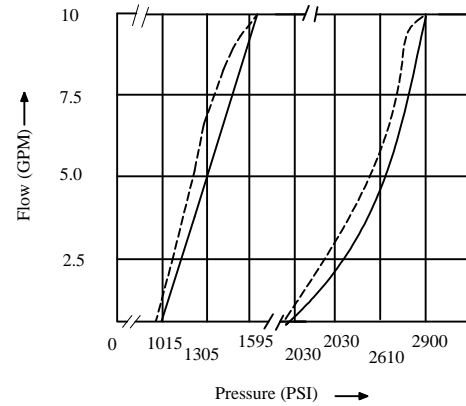
MSV-03-P2- \*

Pressure Drop characteristic



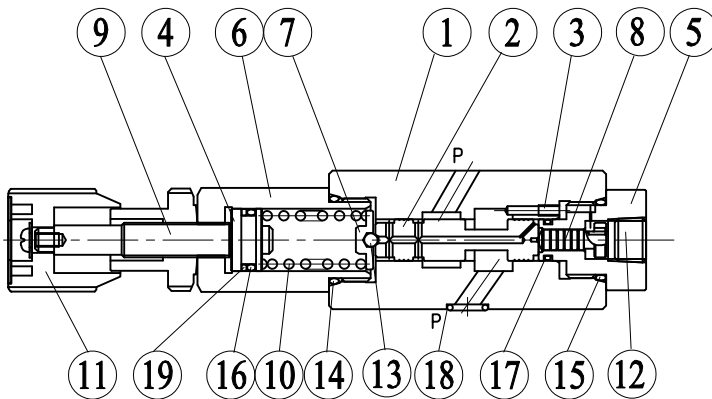
Pressure - Flow characteristic

————— PRESSURE INCREASE  
- - - - - PRESSURE DECREASE



## CROSS SECTION DIAGRAM

MSV-03-P-2 - \*



| NO. | DESCRIPTION       |
|-----|-------------------|
| 1   | BODY              |
| 2   | SPOOL             |
| 3   | CHOCK             |
| 4   | PLUNGER           |
| 5   | BUSHING           |
| 6   | RETAINER          |
| 7   | GUIDE             |
| 8   | PISTON            |
| 9   | SCREW             |
| 10  | SPRING            |
| 11  | AJUSTMENT ELEMENT |
| 12  | PLUG              |
| 13  | BALL              |
| 14  | O-RING            |
| 15  | O-RING            |
| 16  | O-RING            |
| 17  | O-RING            |
| 18  | O-RING            |
| 19  | B/U-RING          |

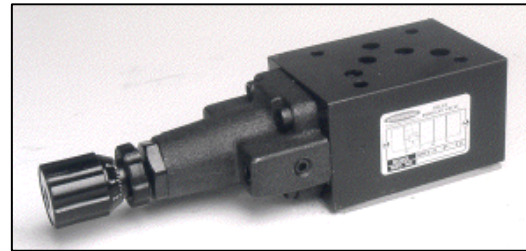
| NO. | DESCRIPTION | PART NO. | Q'TY |
|-----|-------------|----------|------|
| 14  | O-RING      | P22, 90° | 1    |
| 15  | O-RING      | P20, 90° | 1    |
| 16  | O-RING      | P14, 70° | 1    |
| 17  | O-RING      | P9, 90°  | 1    |
| 18  | O-RING      | P9, 90°  | 4    |



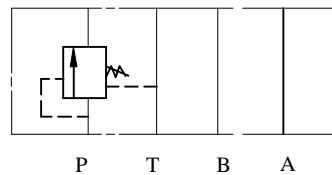
# IFP MSV05 SEQUENCE VALVE MODULE



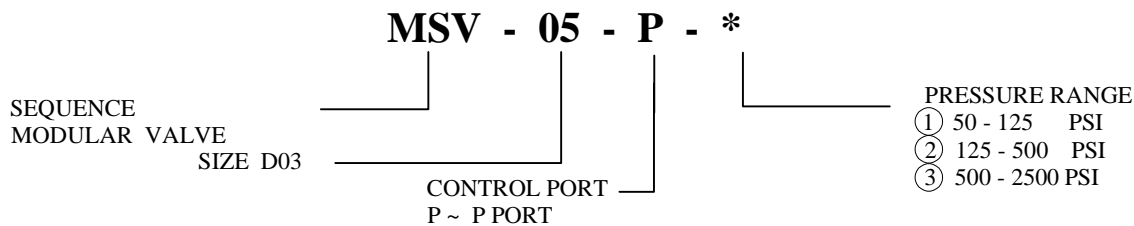
- ISO4401-05 SIZE/NFPA D05
- ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- OPTIONAL PRESSURE RANGES AVAILABLE
- LOW PRESSURE OVERRIDE



MSV-05-P



## ORDERING CODE



## SPECIFICATIONS

| TYPES      | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | PRESSURE RANGE (PSI) | WEIGHT lbs |
|------------|------|---------------------|------------------|----------------------|------------|
| MSV-05-P-* | D05  | 4500 PSI            | 30               | ① 50 - 125 PSI       | 7.70       |
|            |      |                     |                  | ② 125 - 500 PSI      |            |
|            |      |                     |                  | ③ 500 - 2500 PSI     |            |

IFP offers a modular Sequence Valve designed for use in applications requiring an adjustable regulating valve to control operational sequence of two or more hydraulic actuators and to assure priority hydraulic pressure to one part of a circuit before another. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFP MSV05 SEQUENCE VALVE MODULE

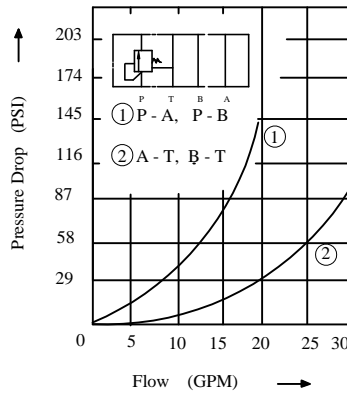


MSV-05-P- \*

## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

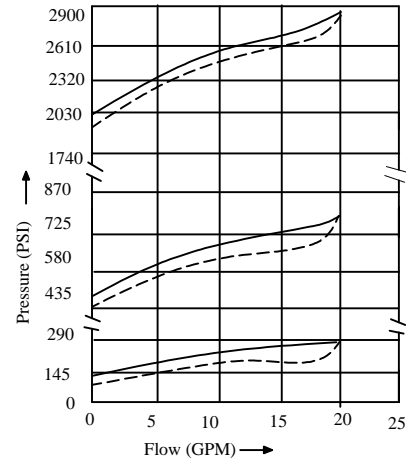
MSV-05-P- 1

Pressure Drop characteristic



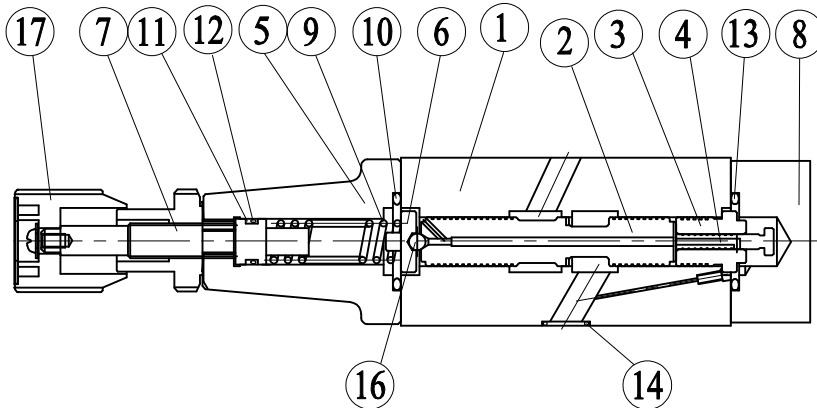
Pressure - Flow characteristic

————— PRESSURE INCREASE  
----- PRESSURE DECREASE



## **CROSS SECTION DIAGRAM**

MSV-05-P-\*



NO. DESCRIPTION

|    |                   |
|----|-------------------|
| 1  | BODY              |
| 2  | SPOOL             |
| 3  | SLEEVE            |
| 4  | PISTON            |
| 5  | COVER             |
| 6  | GUIDE             |
| 7  | SCREW             |
| 8  | COVER             |
| 9  | SPRING            |
| 10 | SPRING            |
| 11 | BACK-UP RING      |
| 12 | O-RING            |
| 13 | O-RING            |
| 14 | O-RING            |
| 16 | BALL              |
| 17 | AJUSTMENT ELEMENT |

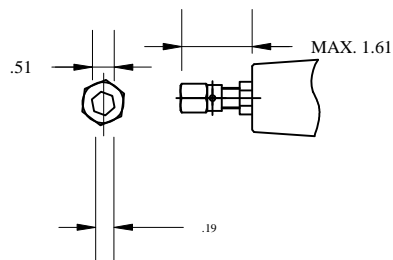
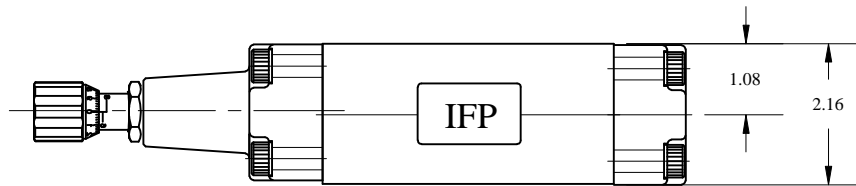
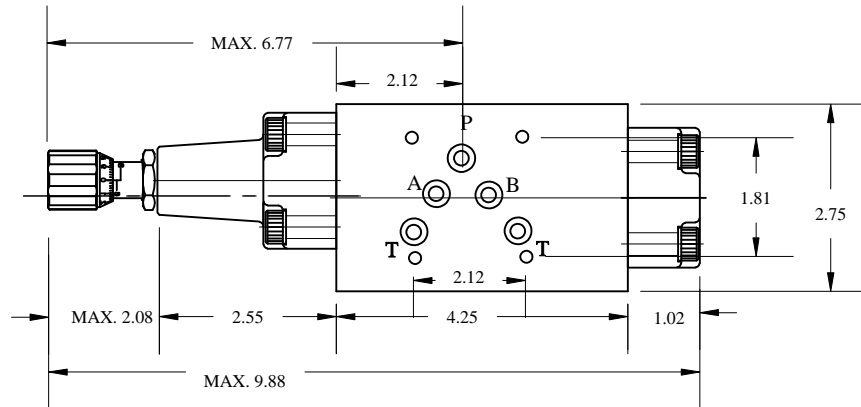
| NO. | DESCRIPTION | PART NO.   | Q'TY |
|-----|-------------|------------|------|
| 12  | O-RING      | P8, 70°    | 1    |
| 13  | O-RING      | P26, 90°   | 2    |
| 14  | O-RING      | AS-568-014 | 5    |

# IFP MSV05 SEQUENCE VALVE MODULE



## DIMENSIONS

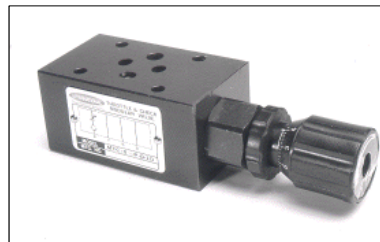
MSV-05-P-\*



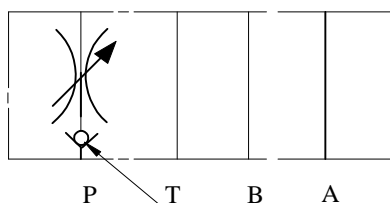
# IFP MTV03 FLOW REGULATOR MODULE



- ISO4401-03 SIZE/NFPA D03
- ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- LEAK FREE POSITIVE SEAT

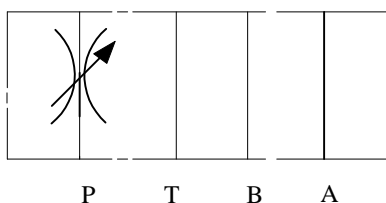


MTC-03-P

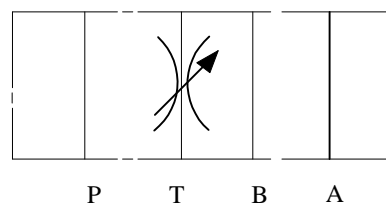


OPTIONAL CHECK VALVE →

MTV-03-P



MTV-03-T



## ORDERING CODE

**MTV - (MTC) - 03 - P**

MODULAR REGULATOR  
VALVE

MODULAR REGULATOR VALVE  
(OPTIONAL CHECK VALVE)

SIZE D03

CONTROL PORT  
P - PRESSURE  
T - TANK

## SPECIFICATIONS

| TYPES    | SIZE | Max. Pressure<br>(PSI) | RATED FLOW<br>(GPM) | WEIGHT<br>lbs |
|----------|------|------------------------|---------------------|---------------|
| MTC-03-P | D03  | 4500 PSI               | 15                  | 2.18          |
| MTV-03-P |      |                        |                     |               |
| MTV-03-T |      |                        |                     |               |

IFP offers a modular Flow Regulator Valve designed for use in applications requiring extremely fine adjustment, especially at low flows. These valves regulate flow by means of an adjustable orifice and flow through the valve is dependent upon pressure drop at any particular setting of the orifice. An optional "P" port check valve is available for a compact flow control and check valve combination. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

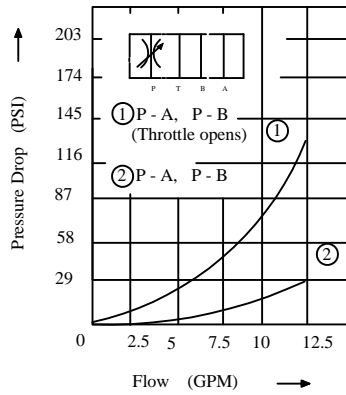
# IFP MTV03 FLOW REGULATOR MODULE



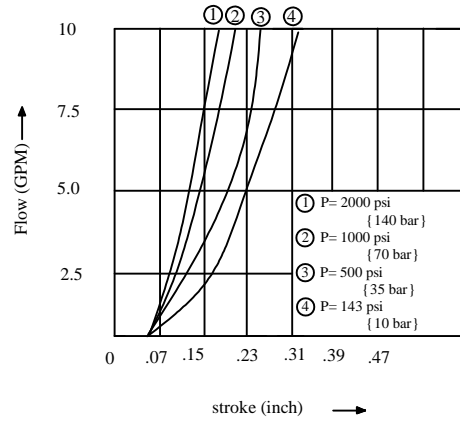
## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

MTV-03-P

Pressure Drop characteristic

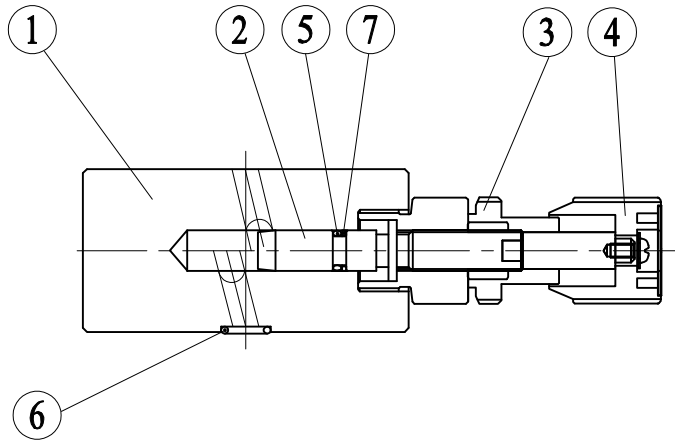


Stroke - Flow characteristic  
MTV-03-P  
MTV-03-T



## **CROSS SECTION DIAGRAM**

MTV-03-P



### NO. | PARTS NAME

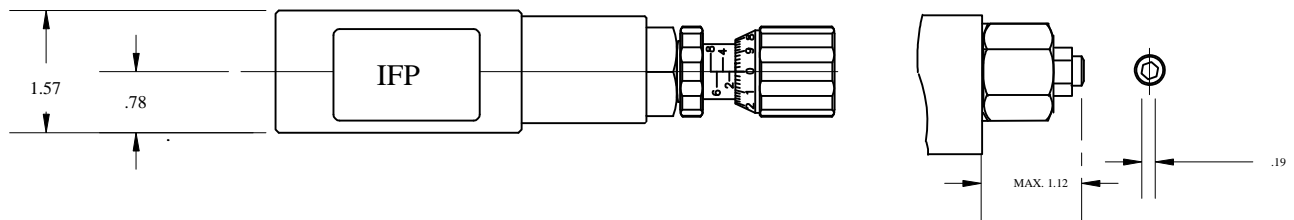
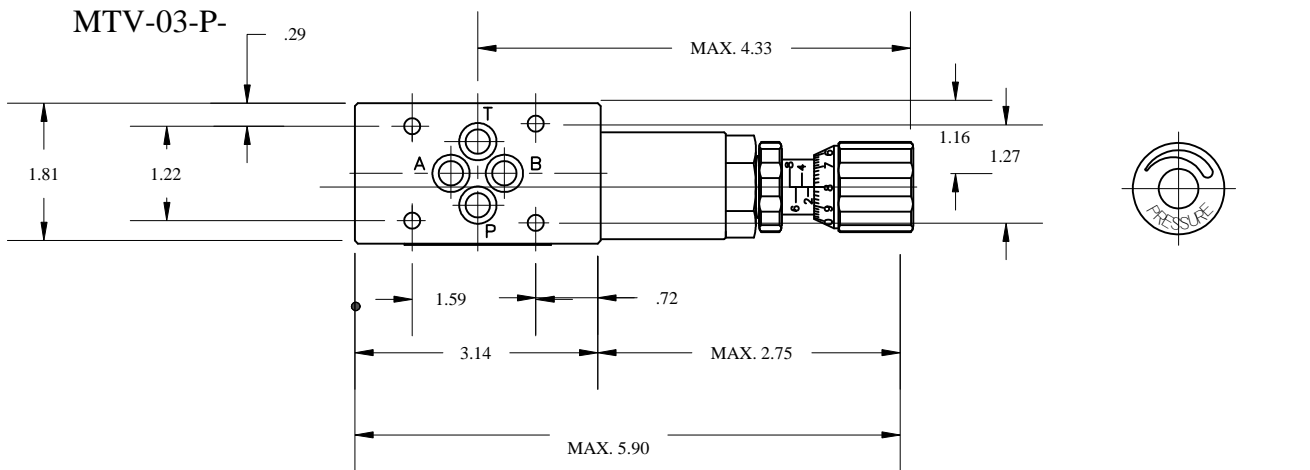
|   |                   |
|---|-------------------|
| 1 | BODY              |
| 2 | SCREW             |
| 3 | LOCKING NUT       |
| 4 | AJUSTMENT ELEMENT |
| 5 | O-RING            |
| 6 | O-RING            |
| 7 | BACK-UP RING      |

| NO. | PARTS NAME | PARTS NO. | QTY |
|-----|------------|-----------|-----|
| 5   | O-RING     | P8, 70°   | 1   |
| 6   | O-RING     | P26, 90°  | 4   |

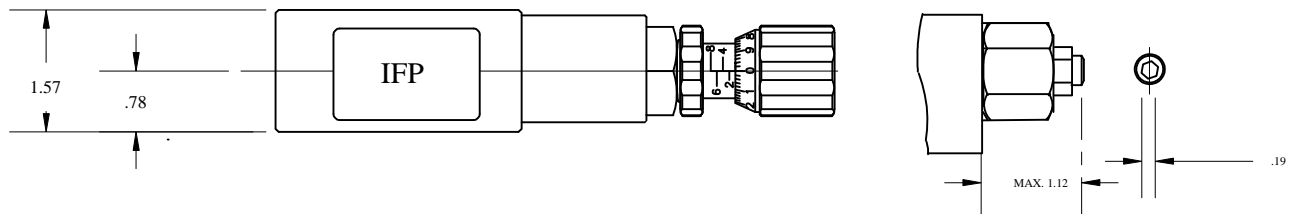
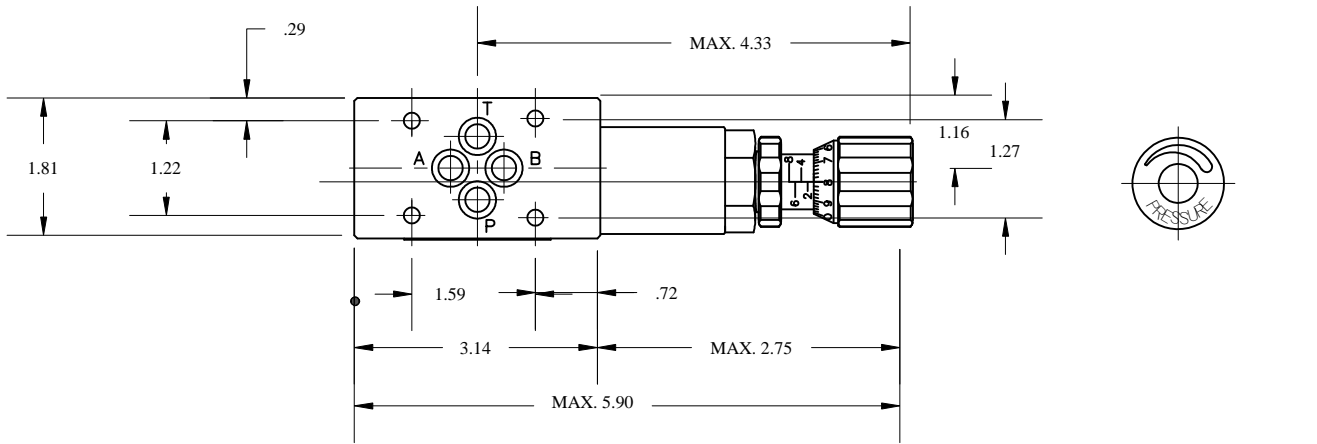
# IFP MTV03 FLOW REGULATOR MODULE



## DIMENSIONS



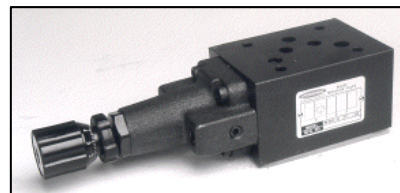
## MTV-03-T



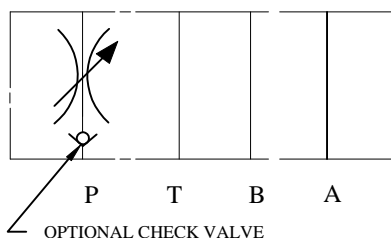
# IFP MTV05 FLOW REGULATOR MODULE



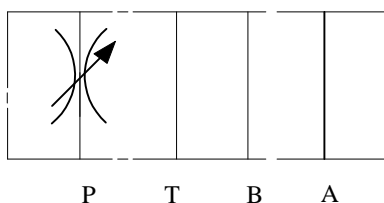
- ISO4401-05 SIZE/NFPA D05
- ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- LEAK FREE POSITIVE SEAT



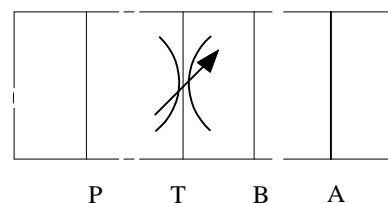
MTC-05-P



MTV-05-P



MTV-05-T



## ORDERING CODE

**MTV - (MTC) - 05 - P**

MODULAR FLOW  
REGULATOR

MODULAR FLOW REGULATOR  
(OPTIONAL CHECK VALVE)

SIZE D05

CONTROL PORT  
P - PRESSURE  
T - TANK

## SPECIFICATIONS

| TYPES    | SIZE | MAX. PRESSURE<br>(PSI) | RATED FLOW<br>(GPM) | WEIGHT<br>lbs |
|----------|------|------------------------|---------------------|---------------|
| MTC-05-P | D05  | 4500 PSI               | 30                  | 5.50          |
| MTV-05-P |      |                        |                     |               |
| MTV-05-A |      |                        |                     |               |

IFP offers a modular Flow Regulator Valve designed for use in applications requiring extremely fine adjustment, especially at low flows. These valves regulate flow by means of an adjustable orifice and flow through the valve is dependent upon pressure drop at any particular setting of the orifice. An optional "P" port check valve is available for a compact flow control and check valve combination. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

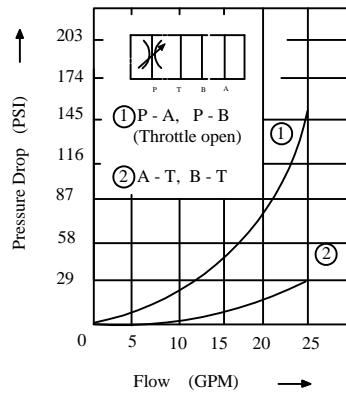
# IFP MTV05 FLOW REGULATOR MODULE



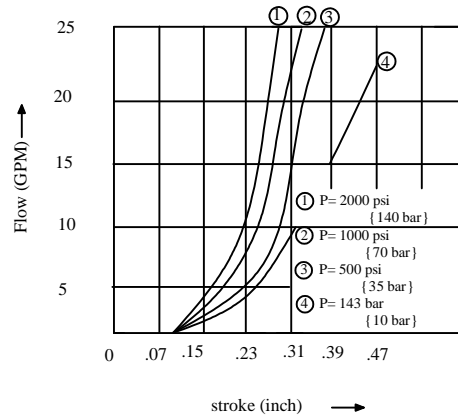
## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

MTV-05-P

Pressure Drop characteristic

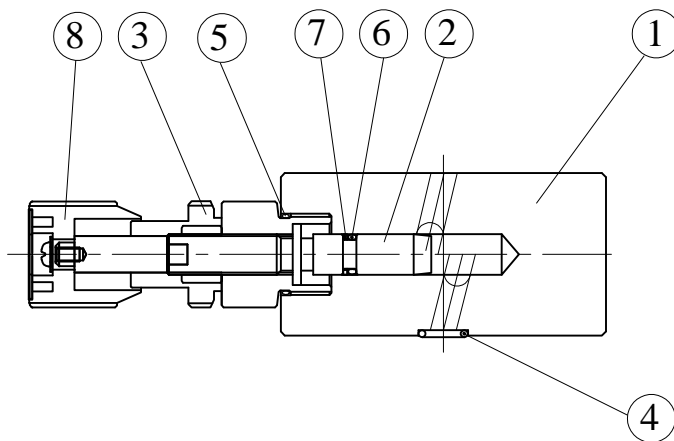


Stroke - Flow characteristic  
MTV-05-P



## **CROSS SECTION DIAGRAM**

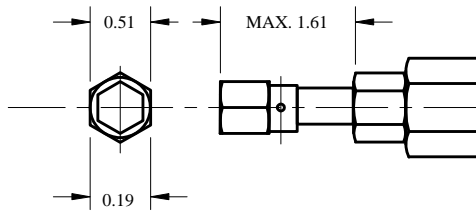
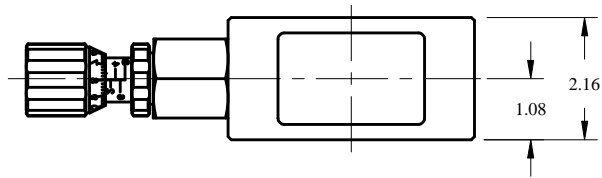
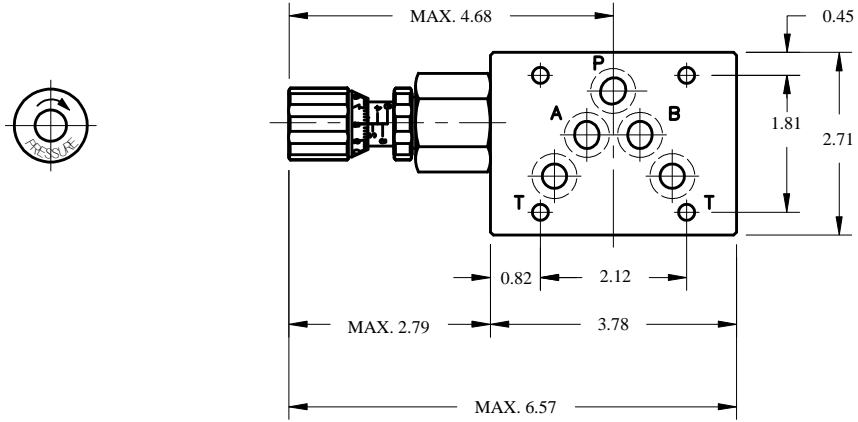
MTV-05-P



| NO. | PARTS NAME        |
|-----|-------------------|
| 1   | BODY              |
| 2   | SCREW             |
| 3   | RETAINER          |
| 4   | O-RING            |
| 5   | O-RING            |
| 6   | O-RING            |
| 7   | BACK-UP RING      |
| 8   | AJUSTMENT ELEMENT |

| NO. | PARTS NAME | PARTS NO.  | QTY |
|-----|------------|------------|-----|
| 4   | O-RING     | AS-568-014 | 5   |
| 5   | O-RING     | P22, 90°   | 1   |
| 6   | O-RING     | P10, 70°   | 1   |

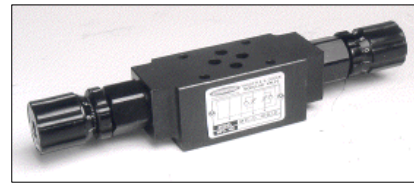
# IFP MTV05 FLOW REGULATOR MODULE



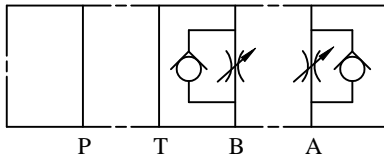
# IFP MTC03 FLOW REGULATOR MODULE/ CHECK VALVE



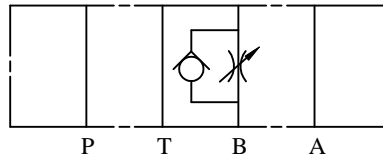
- ISO4401-03 SIZE/NFPA D03
- ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- LEAK FREE POSITIVE SEAT



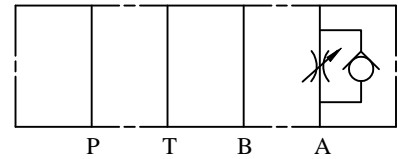
MTC-03- W - 0



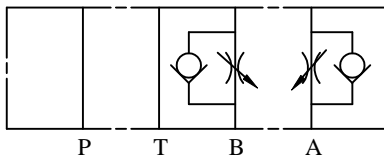
MTC-03-B - 0



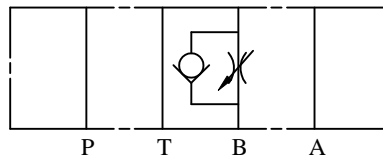
MTC-03-A - 0



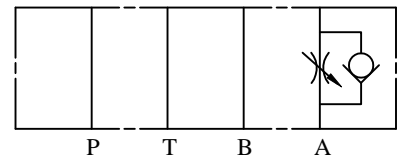
MTC-03-W - I



MTC-03-B - I



MTC-03-A - I



## ORDERING CODE

**MTC - 03 - W - \***

MODULAR REGULAR  
VALVE

SIZE D03

CONTROL PORT W ~ A&B

A ~ A

B ~ B

O - METER OUT

I - METER IN

## SPECIFICATIONS

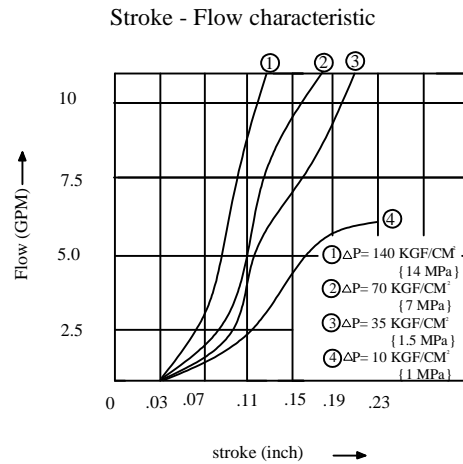
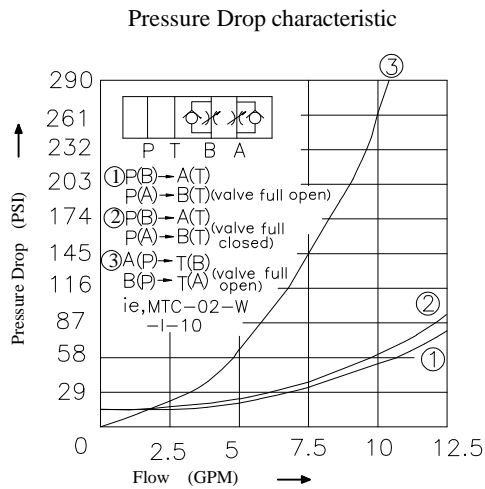
| TYPES            | SIZE | MAX.<br>PRESSURE<br>(PSI) | RATED<br>FLOW<br>(GPM) | WEIGHT<br>lbs |
|------------------|------|---------------------------|------------------------|---------------|
| MTC-03-W-*       | D03  | 4500 PSI                  | 15                     | 2.87          |
| MTC-03-A (B) - * |      |                           |                        | 2.64          |

IFP offers a Flow Regulator with Check assemblies in a modular design for applications requiring extremely fine adjustment, especially at low flows. These valves regulate flow by means of an adjustable orifice and flow through the valve is dependent upon pressure drop at any particular setting of the orifice. The internal check valve around each control orifice provide for meter in or meter out control with dual or single service line versions. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFF MTC03 FLOW REGULATOR MODULE/ CHECK VALVE

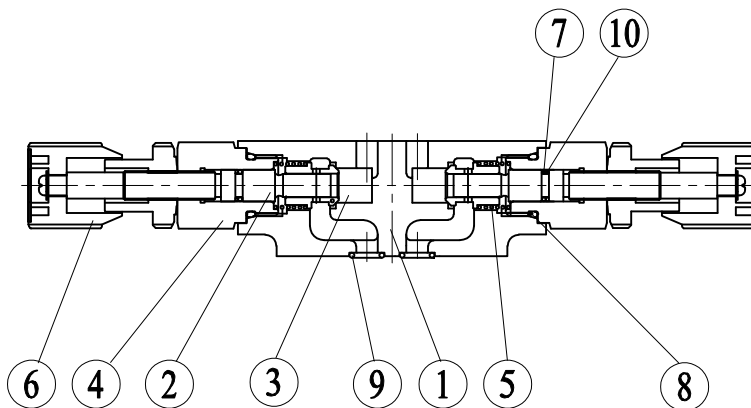


## PERFORMANCE CURVES Viscosity (100-150 SUS)



## CROSS SECTION DIAGRAM

MTC-03-W-\*



| NO. | PARTS NAME      |
|-----|-----------------|
| 1   | BODY            |
| 2   | ADJUST SCREW    |
| 3   | THROTTLE        |
| 4   | RETAINER        |
| 5   | SPRING          |
| 6   | KNOB UNIT       |
| 7   | O-RING          |
| 8   | O-RING          |
| 9   | O-RING          |
| 10  | BACK UP TO RING |

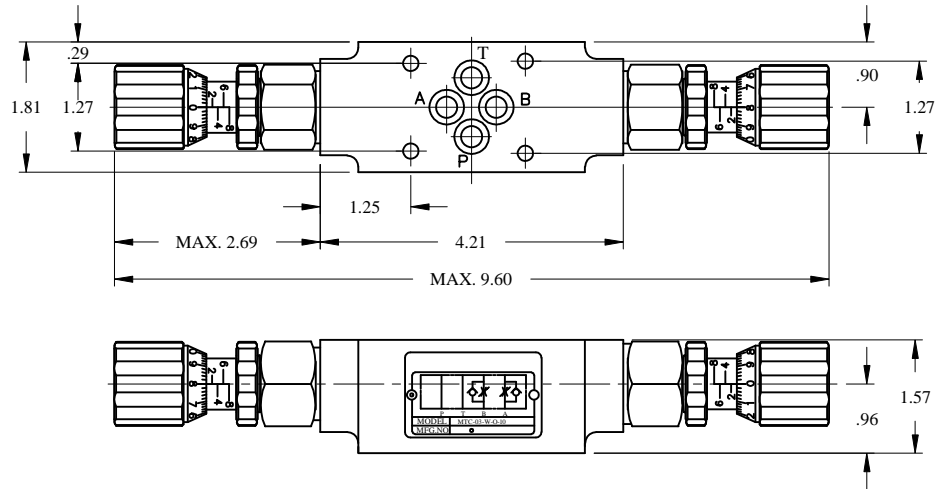
| NO. | PARTS NAME | PARTS NO. | Q'TY |
|-----|------------|-----------|------|
| 7   | O-RING     | P8, 90°   | 2    |
| 8   | O-RING     | P18, 90°  | 2    |
| 9   | O-RING     | P9, 90°   | 4    |

# IFP MTC03 FLOW REGULATOR MODULE/ CHECK VALVE

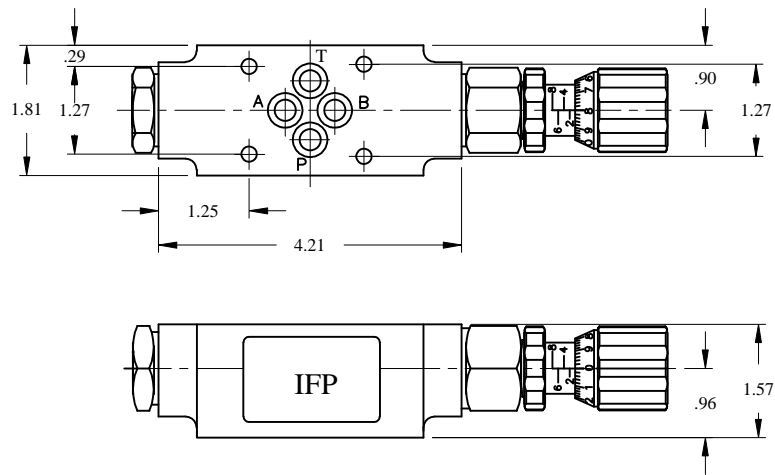


## DIMENSIONS

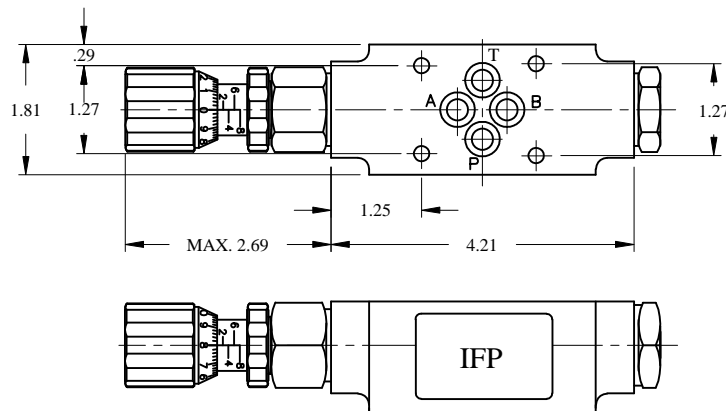
MTC-03-W-\*



MTC-03-A - \*



MTC-03-B - \*



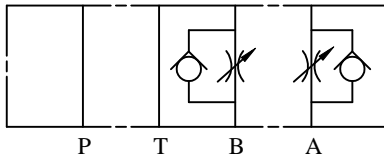
# IFP MTC05 FLOW REGULATOR MODULE/ CHECK VALVE



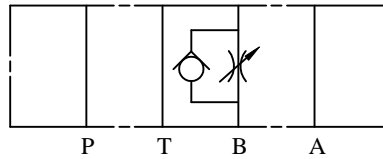
- ISO4401-05 SIZE/NFPA D05
- ADJUSTABLE MICROMETER KNOB
- EXTREMELY PRECISE CONTROL
- LEAK FREE POSITIVE SEAT



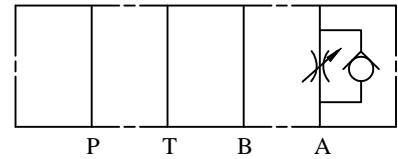
MTC-05- W - 0



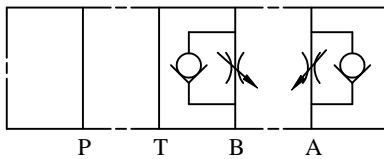
MTC-05-B - 0



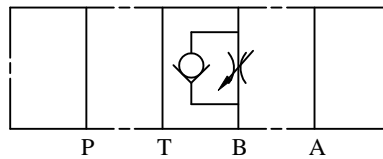
MTC-05-A - 0



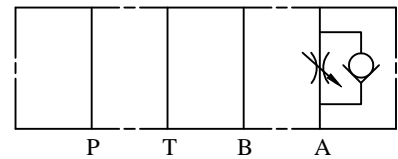
MTC-05-W - I



MTC-05-B - I



MTC-05-A - I



## ORDERING CODE

**MTC - 05 - W - \***

MODULAR REGULAR  
VALVE

SIZE D05

0 - METER OUT  
I - METER IN

CONTROL PORT W ~ A&B  
A ~ A  
B ~ B

## SPECIFICATIONS

| TYPES            | SIZE | MAX.<br>PRESSURE<br>(PSI) | RATED<br>FLOW<br>(GPM) | WEIGHT<br>lbs |
|------------------|------|---------------------------|------------------------|---------------|
| MTC-05-W-*       | D05  | 4500 PSI                  | 30                     | 6.83          |
| MTC-05-A (B) - * |      |                           |                        | 6.61          |

IFP offers a Flow Regulator with Check assemblies in a modular design for applications requiring extremely fine adjustment, especially at low flows. These valves regulate flow by means of an adjustable orifice and flow through the valve is dependent upon pressure drop at any particular setting of the orifice. The internal check valve around each control orifice provide for meter in or meter out control with dual or single service line versions. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

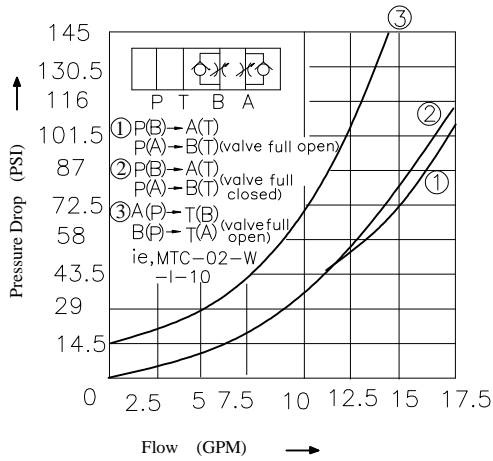
# IFP MTC05 FLOW REGULATOR MODULE/ CHECK VALVE



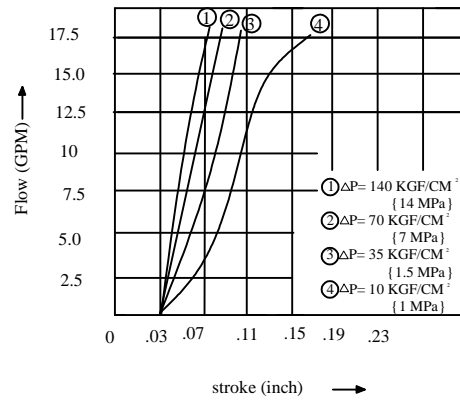
## **PERFORMANCE CURVES** Viscosity (100-150 SUS)

MTC-05-W-\*

Pressure Drop characteristic

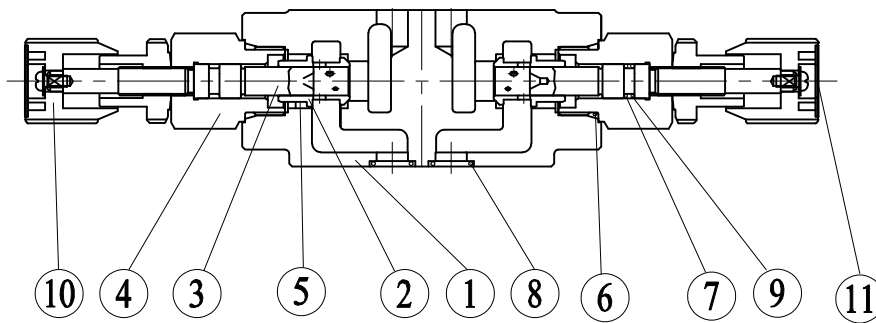


Stroke - Flow characteristic



## **CROSS SECTION DIAGRAM**

MTC-05-W-\*



| NO. | DESCRIPTION  |
|-----|--------------|
| 1   | BODY         |
| 2   | THROTTLE     |
| 3   | ADJUST SCREW |
| 4   | RETAINER     |
| 5   | SPRING       |
| 6   | O-RING       |
| 7   | O-RING       |
| 8   | O-RING       |
| 9   | B/U RING     |
| 10  | KNOB UNIT    |
| 11  | PLATE        |

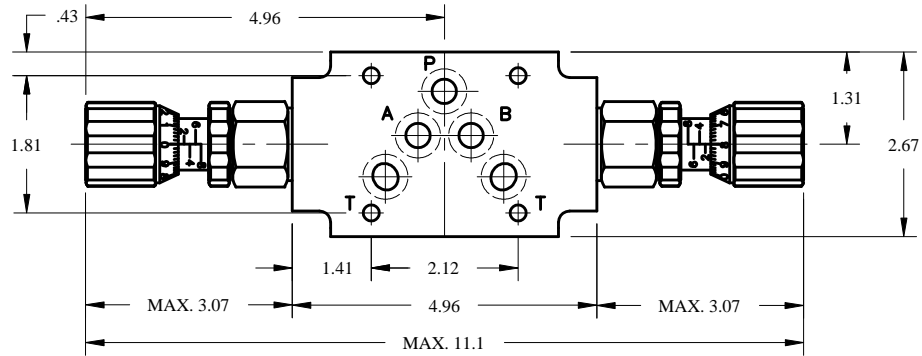
| NO. | DESCRIPTION | PART NO.   | QTY |
|-----|-------------|------------|-----|
| 6   | O-RING      | P22, 90°   | 2   |
| 7   | O-RING      | P8, 90°    | 2   |
| 8   | O-RING      | AS-568-014 | 5   |

# IFP MTC05 FLOW REGULATOR MODULE/ CHECK VALVE

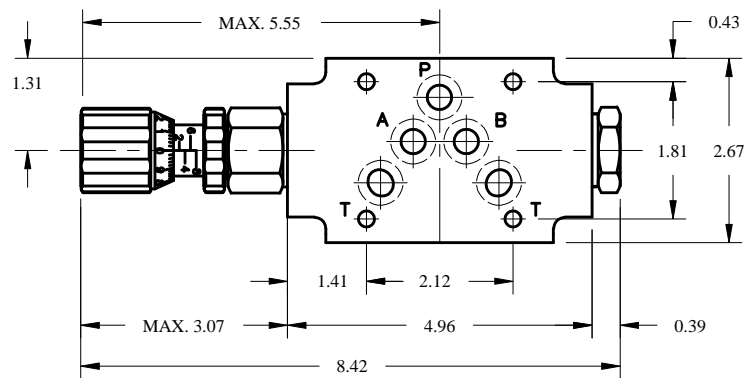


## DIMENSIONS

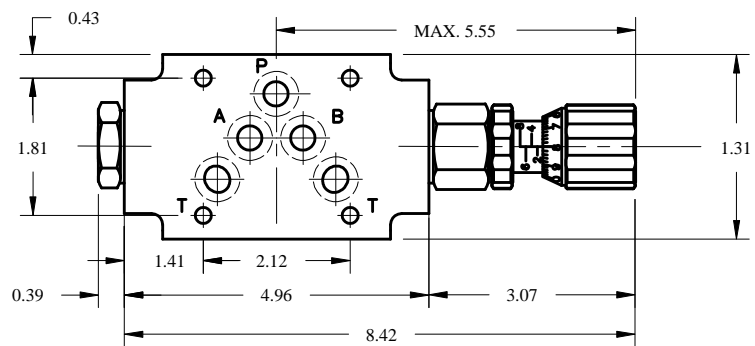
MTC-05-W-\*



MTC-05-A-\*



MTC-05-B-\*



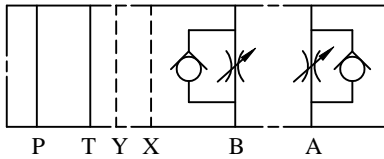
# IFP MTC07 FLOW REGULATOR MODULE



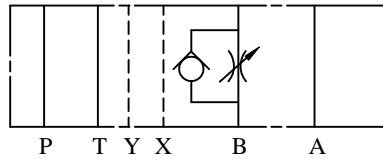
- ISO4401-07 SIZE/NFPA D07
- EASY ADJUSTABLE KNOB
- EXTREMELY PRECISE CONTROL
- LEAK FREE POSITIVE SEAT



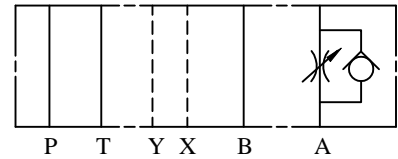
MTC-07- W - 0



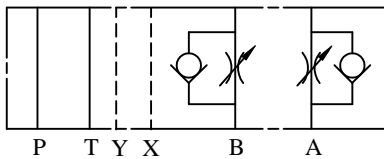
MTC-07-B - 0



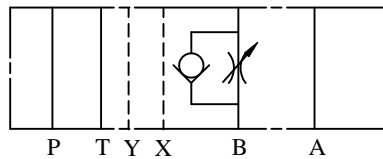
MTC-07-A - 0



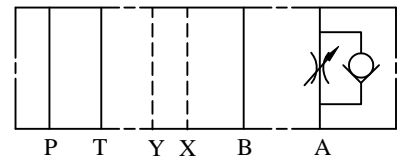
MTC-07-W - 1



MTC-07-B - 1



MTC-07-A - 1



## ORDERING CODE

**MTC - 07 - W - \***

MODULAR REGULAR  
VALVE

SIZE D07

0 - METER OUT  
1 - METER IN

CONTROL PORT W ~ A&B  
A ~ A  
B ~ B

## SPECIFICATIONS

| TYPES            | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | WEIGHT lbs |
|------------------|------|---------------------|------------------|------------|
| MTC-07-W-*       | D07  | 4570 PSI            | 79.3             | 14.30      |
| MTC-07-A (B) - * |      |                     |                  | 13.86      |

IFP offers a Flow Regulator with Check assemblies in a modular design for applications requiring extremely fine adjustment, especially at low flows. These valves regulate flow by means of an adjustable orifice and flow through the valve is dependent upon pressure drop at any particular setting of the orifice. The internal check valve around each control orifice provide for meter in or meter out control with dual or single service line versions. The use of stackable modules offers cost effective, compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

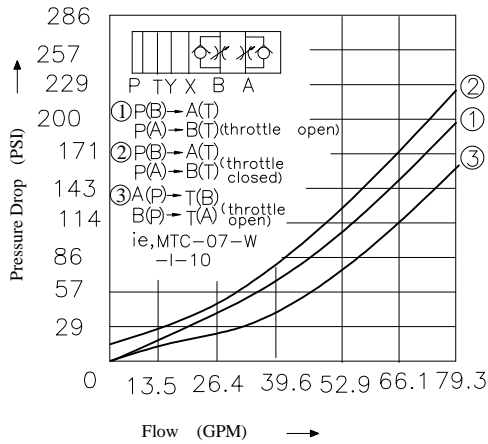
# IFP MTC07 FLOW REGULAR MODULE



## PERFORMANCE CURVES Viscosity (100-150 SUS)

MTC-07-W-O(I)-\*

Pressure Drop characteristic

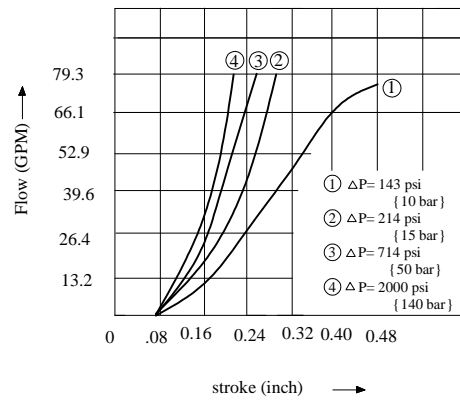


MTC-07-W-O(I)-\*

MTC-07-A-O(I)-\*

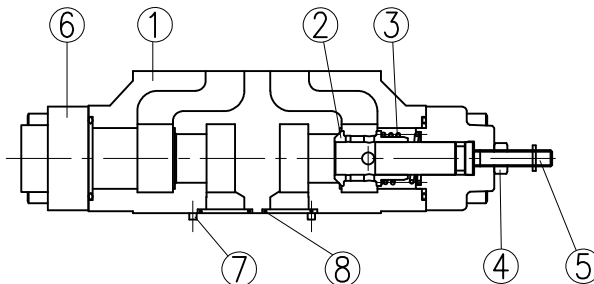
MTC-07-B-O(I)-\*

Stroke - Flow characteristic



## CROSS SECTION DIAGRAM

MTC-07-B-\*



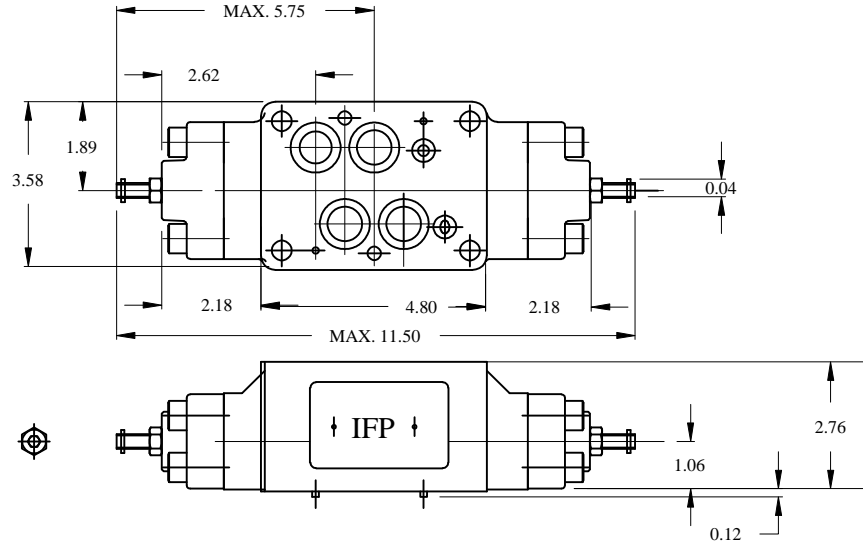
| NO. | DESCRIPTION              |
|-----|--------------------------|
| 1   | BODY                     |
| 2   | THROTTLE                 |
| 3   | SPRING                   |
| 4   | NUT                      |
| 5   | SCREW                    |
| 6   | COVER                    |
| 7   | PIN                      |
| 8   | O-RING                   |
|     | PORTS A,B,P,T: AS568-118 |
|     | PORTS X,Y: AS568-012     |

# IFP MTC07 FLOW REGULATOR MODULE

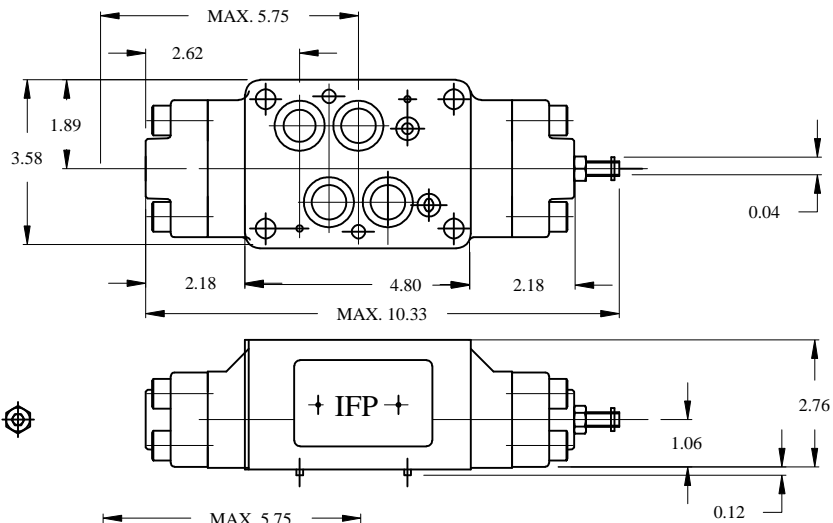


## DIMENSIONS

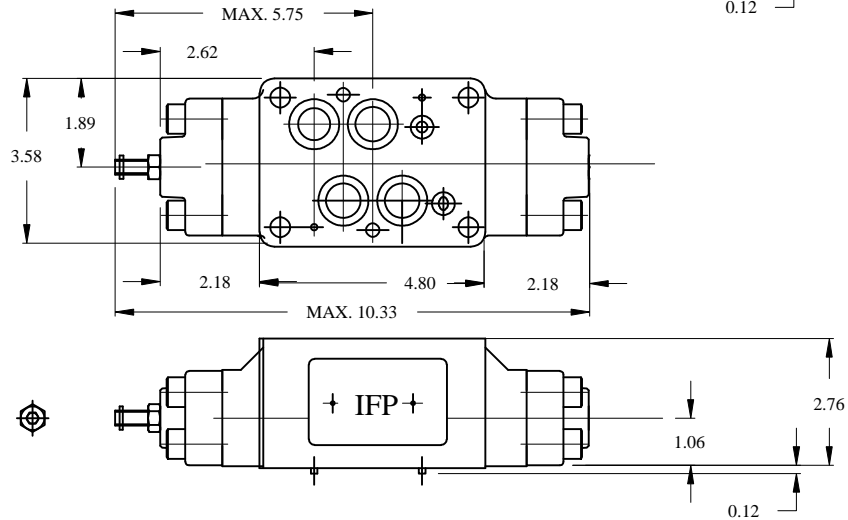
MTC-07-W-\*



MTC-07-B - \*



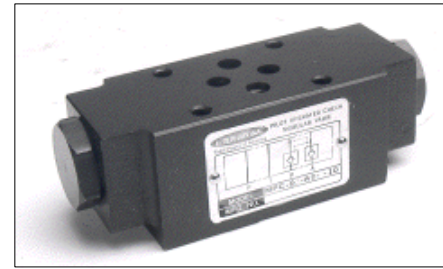
MTC-07-A - \*



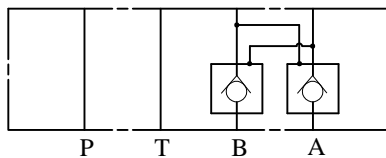
# IFP MPC(D)03 PILOT CHECK VALVE MODULE



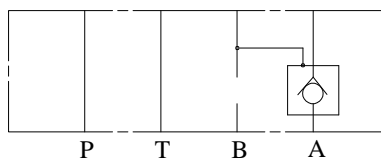
- ISO4401-03 SIZE/NFPA D03
- STEEL SEAT FOR LONG WEAR
- ZERO LEAKAGE
- DECOMPRESSION FEATURE



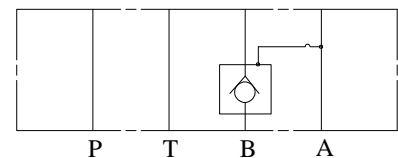
MPC-03-W



MPC-03-A



MPC-03-B



## ORDERING CODE

**MPC (D) - 03 - W - 1**

MODULAR CHECK VALVE

DECOMPRESSION FEATURE

SIZE D03

CRACKING PRESSURE 1:2

CONTROL PORT

W ~ A, B PORT

A ~ A PORT

B ~ B PORT

## SPECIFICATIONS

| TYPES           | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | CRACKING PRESSURE (PSI) | AREA RATIO   |       |              | WEIGHT lbs |
|-----------------|------|---------------------|------------------|-------------------------|--------------|-------|--------------|------------|
|                 |      |                     |                  |                         | PILOT PISTON | VALVE | NEEDLE VALVE |            |
| MPC(D)-03-W-1-* | D03  | 4500 PSI            | 15               | 5                       | 1            | 0.37  | 0.06         | 2          |
| A               |      |                     |                  |                         |              |       |              |            |
| B               |      |                     |                  |                         |              |       |              |            |
| MPC(D)-03-W-2-* |      |                     |                  | 65                      |              |       |              |            |
| A               |      |                     |                  |                         |              |       |              |            |
| B               |      |                     |                  |                         |              |       |              |            |

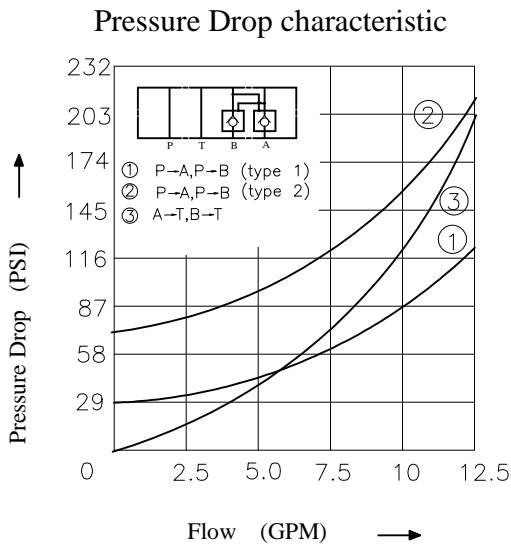
IFP offers a pilot operated Check Valve module designed for use in applications requiring positive lock on a pressurized load, but will release the load upon application of pressure to the opposite port. Modules are available with dual or single service line versions. The use of modular design make compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

# IFP MPC(D)03 PILOT CHECK VALVE MODULE

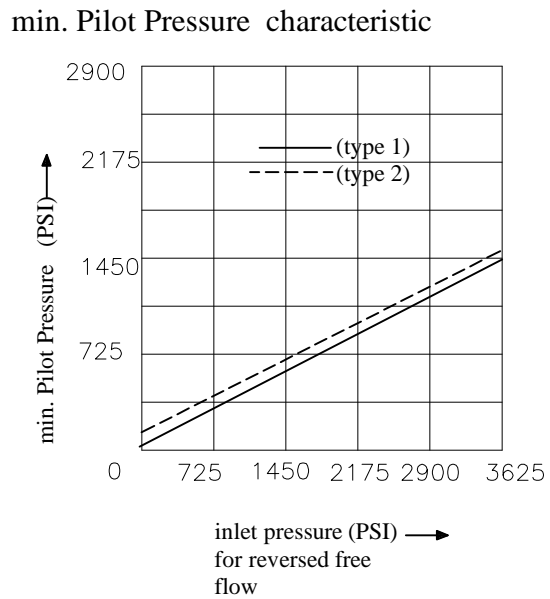


## PERFORMANCE CURVES Viscosity (100-150 SUS)

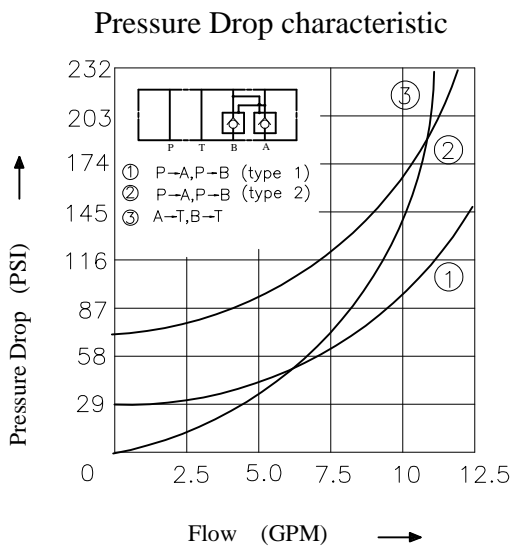
MPC-03-W-\*



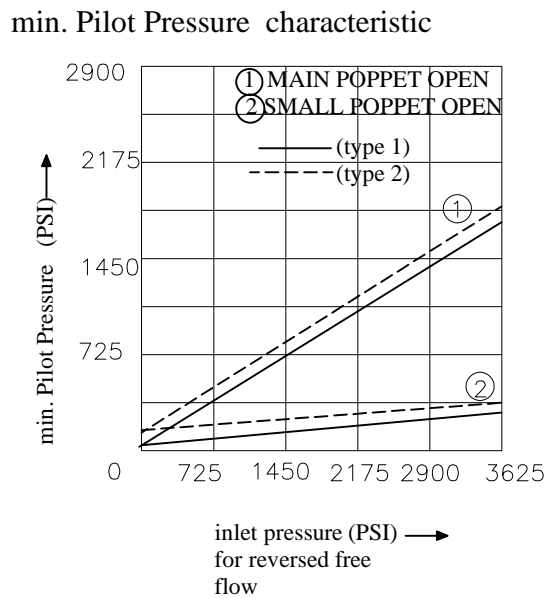
MPC-03-W-\*



MPD-03-W -\*



MPD-03-W -\*



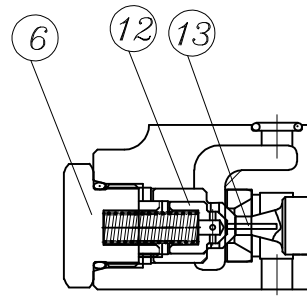
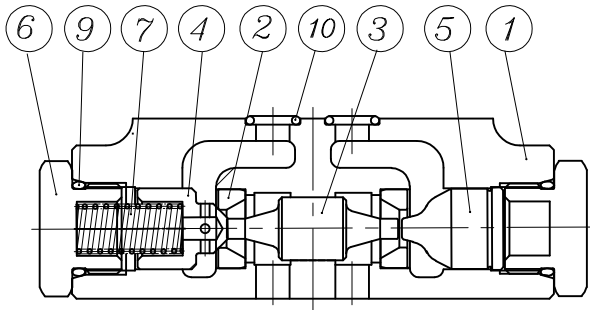
# IFP MPC03 PILOT CHECK VALVE MODULE



## CROSS SECTION DIAGRAM

MPC-03-A-\*

MPD-03-A-  
(Decomposition)



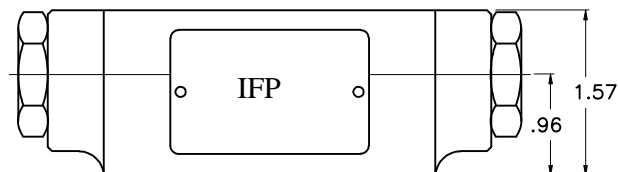
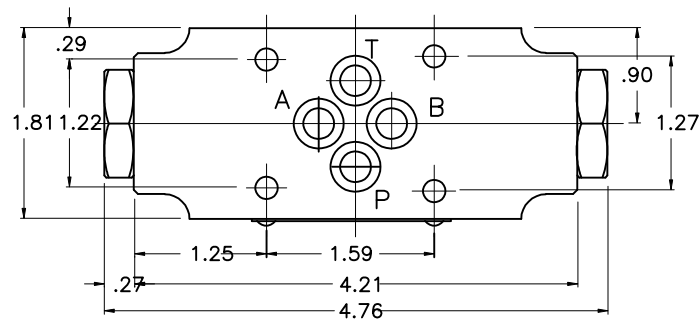
NO. PARTS NAME

- |    |            |
|----|------------|
| 1  | BODY       |
| 2  | SEAT       |
| 3  | SPOOL      |
| 4  | POPPET     |
| 5  | PLUG       |
| 6  | NUT        |
| 7  | SPRING     |
| 8  | NAME PLATE |
| 9  | O-RING     |
| 10 | O-RING     |
| 11 | REVIT      |
| 12 | Poppet     |
| 13 | ROD        |

| NO. | DESCRIPTION | PART NO. | Q'TY |   |   |
|-----|-------------|----------|------|---|---|
|     |             |          | W    | A | B |
| 9   | O-RING      | P18, 90° | 2    | 2 | 2 |
| 10  | O-RING      | P9, 90°  | 4    | 4 | 4 |

## DIMENSIONS

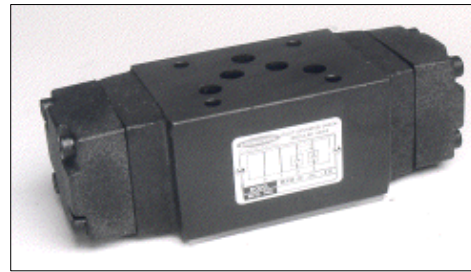
MPC-03-\*-\*



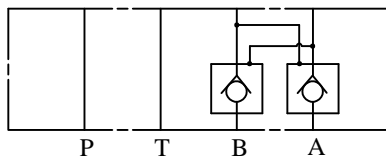
# IFP MPC(D)05 PILOT CHECK VALVE MODULE



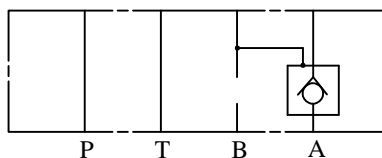
- ISO4401-05 SIZE/NFPA D05
- STEEL SEAT FOR LONG WEAR
- ZERO LEAKAGE
- DECOMPRESSION FEATURE



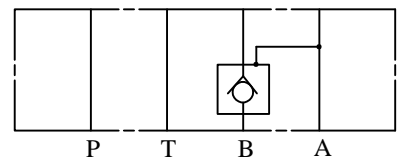
MPC-05-W



MPC-05-A



MPC-05-B



## ORDERING CODE

**MPC(D) - 05 - W - 1**

MODULAR CHECK VALVE

DECOMPRESSION FEATURE

SIZE D05

CRACKING PRESSURE 1:2

CONTROL PORT  
W ~ A, B PORT  
A ~ A PORT  
B ~ B PORT

## SPECIFICATIONS

| TYPES           | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | CRACKING PRESSURE (PSI) | AREA RATIO   |       |              | WEIGHT lbs |
|-----------------|------|---------------------|------------------|-------------------------|--------------|-------|--------------|------------|
|                 |      |                     |                  |                         | PILOT PISTON | VALVE | NEEDLE VALVE |            |
| MPC(D)-05-W-1-* | D05  | 4500 PSI            | 30               | 5                       | 1            | 0.37  | 0.06         | 7.90       |
| A               |      |                     |                  |                         |              |       |              |            |
| B               |      |                     |                  |                         |              |       |              |            |
| MPC(D)-05-W-2-* |      |                     |                  | 65                      |              |       |              |            |
| A               |      |                     |                  |                         |              |       |              |            |
| B               |      |                     |                  |                         |              |       |              |            |

IFP offers a pilot operated Check Valve module designed for use in applications requiring positive lock on a pressurized load, but will release the load upon application of pressure to the opposite port. Modules are available with dual or single service line versions. The use of modular design makes compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

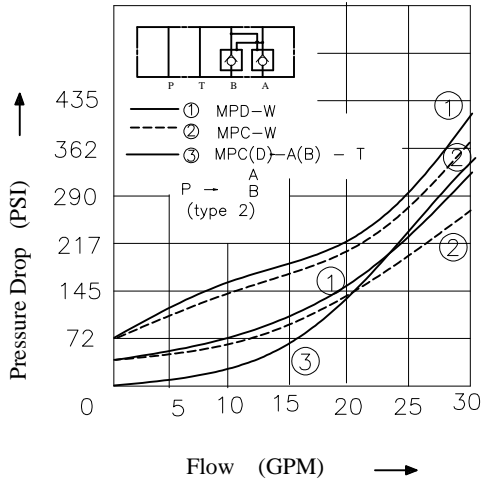
# IFP MPC(D)05 PILOT CHECK VALVE MODULE



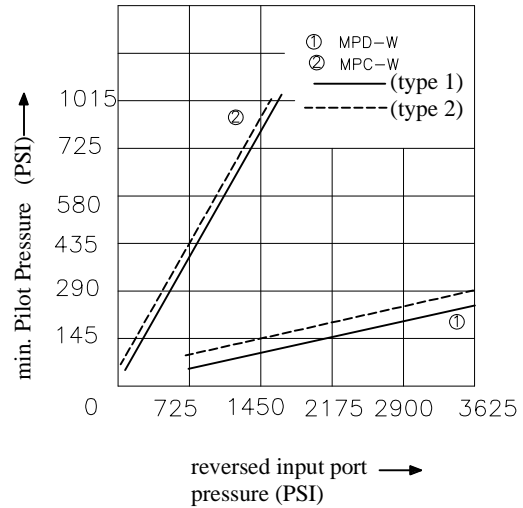
## PERFORMANCE CURVES Viscosity (100-150 SUS)

MPC(D)-05-W-1

Pressure Drop characteristic

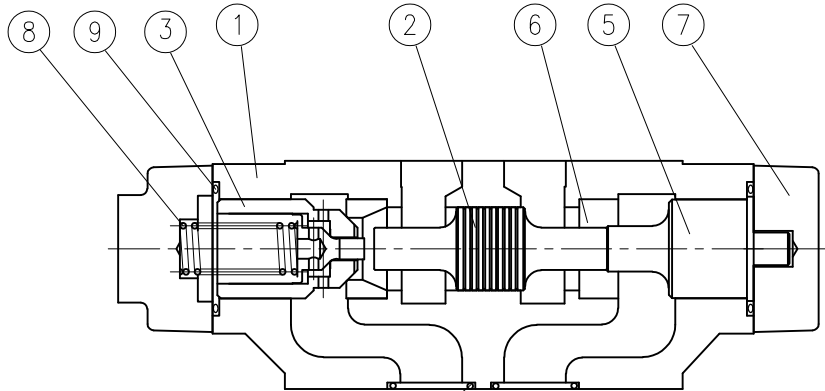


min. Pilot Pressure characteristic

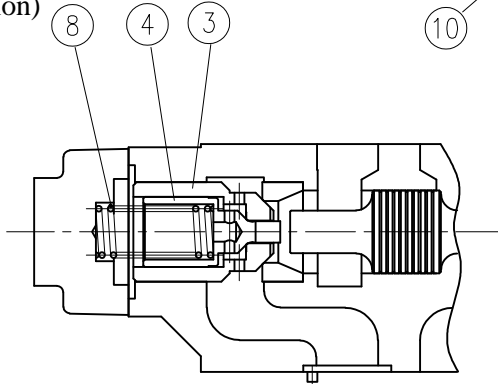


## CROSS SECTION DIAGRAM

MPC-05-A-1



MPD-05-A-1  
(Decomposition)



| NO. | DESCRIPTION | PART NO.   | QTY |
|-----|-------------|------------|-----|
| 1   | Body        |            |     |
| 2   | Piston      |            |     |
| 3   | Poppet      |            |     |
| 4   | Poppet      |            |     |
| 5   | Bushing     |            |     |
| 6   | Seat        |            |     |
| 7   | Cover       |            |     |
| 8   | Spring      |            |     |
| 9   | O-ring      | P29, 90    | 2   |
| 10  | O-ring      | AS-568-014 | 5   |

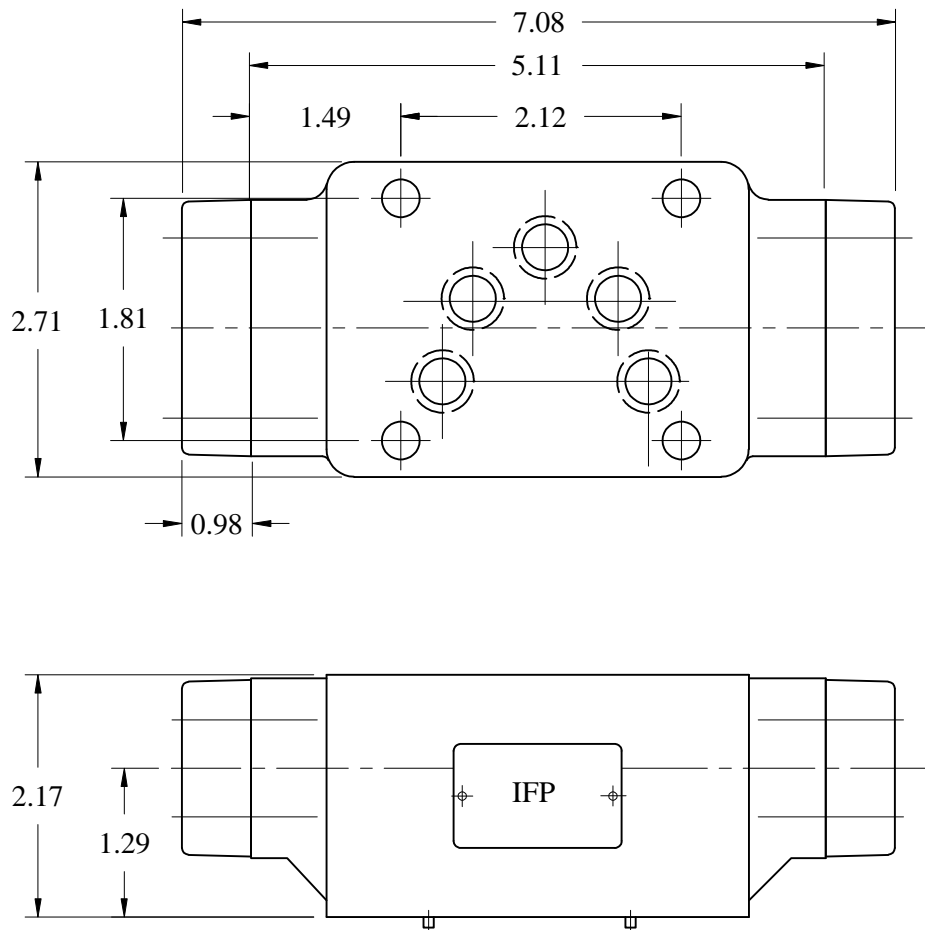
| NO. | DESCRIPTION | PART NO.   | QTY |
|-----|-------------|------------|-----|
| 9   | O-ring      | P29, 90    | 2   |
| 10  | O-ring      | AS-568-014 | 5   |

# IFP MPC(D)05 PILOT CHECK VALVE MODULE



## DIMENSIONS

MPC(D)-05-\*-\*

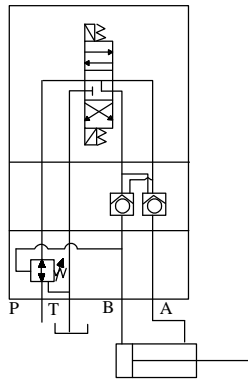


# IFP MODULES APPLICATION GUIDELINES

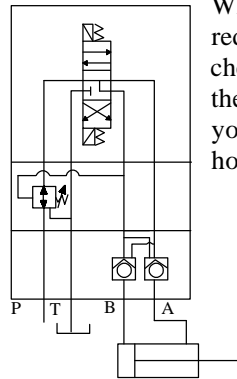


SOLENOID VALVE  
(D.G. Series)  
Pressure Reducing  
(MGV Series)  
Pilot Check Valve  
(MPC Series)

X WRONG



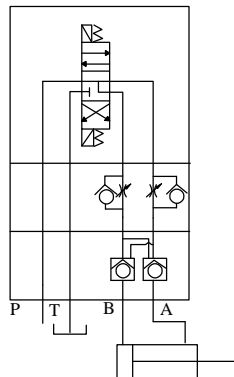
CORRECT



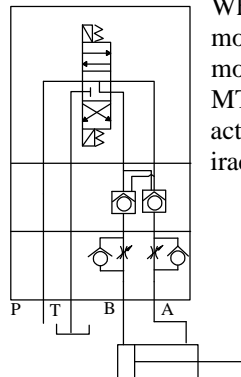
When using the MGV pressure reducing module with the MPC pilot check module in the same assembly, the MPC module should be closest to your actuator to obtain a leak free holding assembly

SOLENOID VALVE  
(D.G. Series)  
Pilot Check Valve  
(MPC Series)  
Flow Control  
(MTC Series)

X WRONG



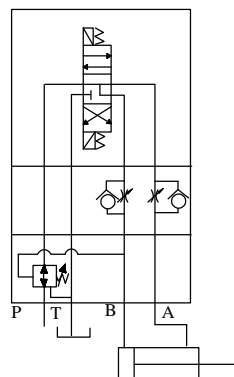
CORRECT



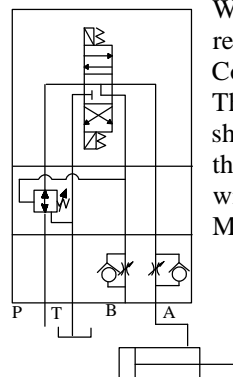
When using the MTC flow control module with the MPC pilot check module in the same assembly, the MTC module should be closest to the actuator, or the actuator will move iradically.

SOLENOID VALVE  
(D.G. Series)  
Pressure Reducing  
(MGV Series)  
Flow Control  
(MTC Series)

X WRONG



CORRECT



When using the MGV pressure reducing module with the MTC Flow Control Module. The MTC Flow Control Module should be closest to your actuator or the back pressure created by the MTC will affect the pressure setting of the MGV pressure reducing.

# IFP BOLT KITS DIRECTIONAL CONTROL VALVES



SIZE D03  
BOLTS GRADE-12.9(ISO 898)

|                  | METRIC<br>M5-6G | INCH<br>10-24 UNC | LENGTH<br>(inches) |
|------------------|-----------------|-------------------|--------------------|
| DG03 VALVE       | BKDG03M         | BKDG03S           | 1 3/4              |
| DG03 + 1 MODULE  | BKDG03M-1       | BKDG03S-1         | 3 3/8              |
| DG03 + 2 MODULES | BKDG03M-2       | BKDG03S-2         | 5                  |
| DG03 + 3 MODULES | BKDG03M-3       | BKDG03S-3         | 6.5                |
| DG03 + 4 MODULES | BKDG03M-4       | BKDG03S-4         | 8 1/8              |

NOTE: Bolts should be torqued to 63-80 lb/in

SIZE D05  
BOLTS GRADE-7

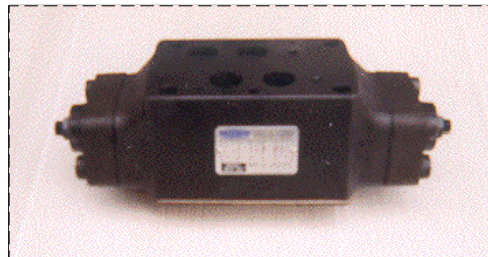
|                  | METRIC<br>M6 | INCH<br>1/4-24 UNC | LENGTH<br>(inches) |
|------------------|--------------|--------------------|--------------------|
| DG05 VALVE       | BKDG05M      | BKDG05S            | 1 3/8              |
| DG05 + 1 MODULE  | BKDG05M-1    | BKDG05S-1          | 3 5/8              |
| DG05 + 2 MODULES | BKDG05M-2    | BKDG05S-2          | 5 3/4              |
| DG05 + 3 MODULES | BKDG05M-3    | BKDG05S-3          | 7 1/2              |
| DG05 + 4 MODULES | BKDG05M-4    | BKDG05S-4          | 10 1/8             |

NOTE: Bolts should be torqued to 100-130 lb/in

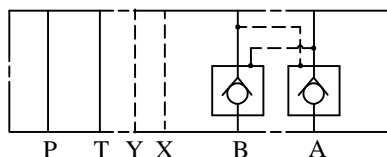
# IFP MPD07 PILOT CHECK MODULE



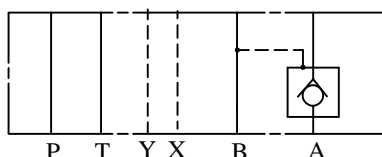
- ISO4401-07 SIZE/NFPA D07
- STEEL SEAT FOR LONG WEAR
- ZERO LEAKAGE
- DECOMPRESSION FEATURE



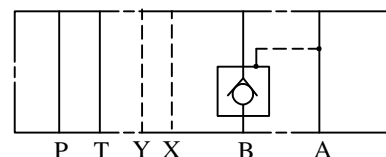
MPD-07-W



MPD-07-A



MPD-07-B



## ORDERING CODE

**MPD - 07 - W - 1**

MODULAR CHECK VALVE

SIZE D07

CONTROL PORT  
W ~ A, B PORT  
A ~ A PORT  
B ~ B PORT

CRACKING PRESSURE 1:2

## SPECIFICATIONS

| TYPES         | SIZE | MAX. PRESSURE (PSI) | RATED FLOW (GPM) | CRACKING PRESSURE (PSI) | AREA RATIO   |       |              | WEIGHT lbs |
|---------------|------|---------------------|------------------|-------------------------|--------------|-------|--------------|------------|
|               |      |                     |                  |                         | PILOT PISTON | VALVE | NEEDLE VALVE |            |
| MPD-07-W -1-* | D07  | 4570 PSI            | 79.3             | 29                      | 1            | 0.5   | 0.07         | 14.96      |
| A             |      |                     |                  |                         |              |       |              |            |
| B             |      |                     |                  |                         |              |       |              |            |
| MPD-07-W -2-* |      |                     |                  |                         |              |       |              |            |
| A             | 71   |                     |                  |                         |              |       |              |            |
| B             |      |                     |                  |                         |              |       |              |            |

IFP offers a pilot operated Check Valve module designed for use in applications requiring positive lock on a pressurized load, but will release the load upon application of pressure to the opposite port. Modules are available with dual or single service line versions. The use of modular design makes compact hydraulic systems in which the modules are "sandwiched" between a directional valve and standard mounting surface.

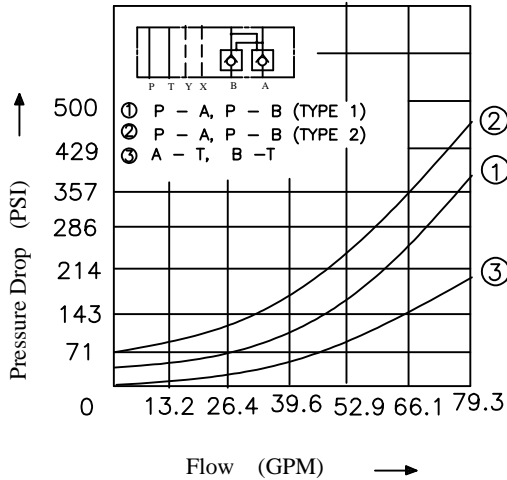
# IFP MPD07 PILOT CHECK MODULE



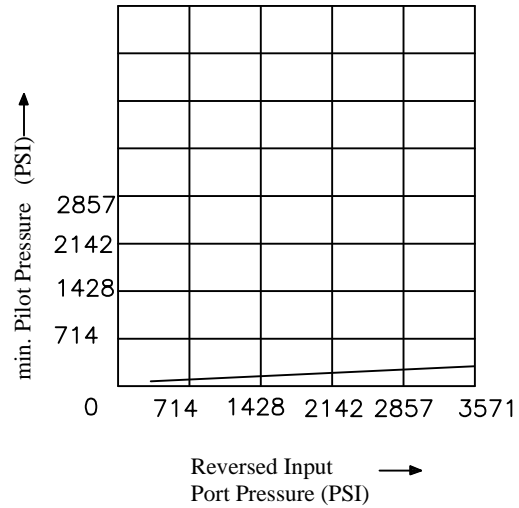
## PERFORMANCE CURVES Viscosity (100-150 SUS)

MPD-07-W-\*

Pressure Drop characteristic

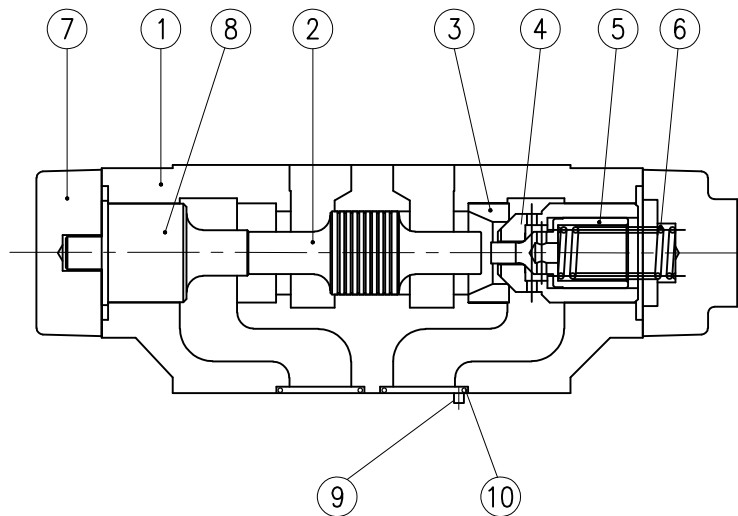


min. Pilot Pressure characteristic



## CROSS SECTION DIAGRAM

MPD-07-A-1



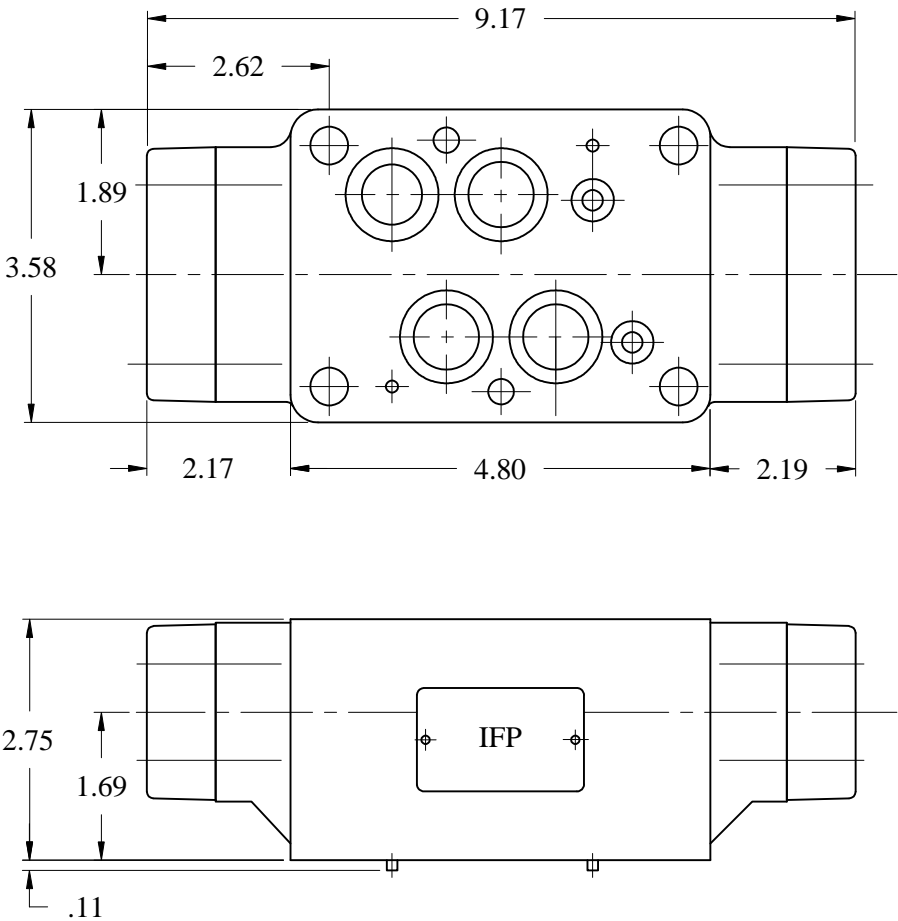
| NO. | DESCRIPTION                 |
|-----|-----------------------------|
| 1   | Body                        |
| 2   | spool                       |
| 3   | Seat                        |
| 4   | Poppet                      |
| 5   | Poppet                      |
| 6   | Spring                      |
| 7   | Cover                       |
| 8   | Bushing                     |
| 9   | Pin                         |
| 10  | O-Ring :                    |
|     | Ports A, B, P, T: AS568-118 |
|     | Ports X,Y: AS568-012        |

# IFP MPD07 PILOT CHECK MODULE



## DIMENSIONS

MPD-07-\*-\*

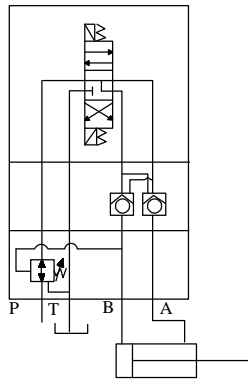


# IFP MODULES APPLICATION GUIDELINES

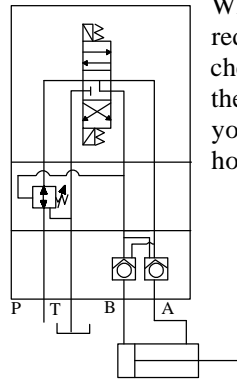


SOLENOID VALVE  
(D.G. Series)  
Pressure Reducing  
(MGV Series)  
Pilot Check Valve  
(MPC Series)

X WRONG



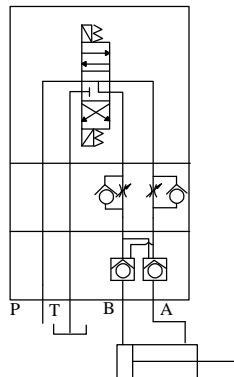
CORRECT



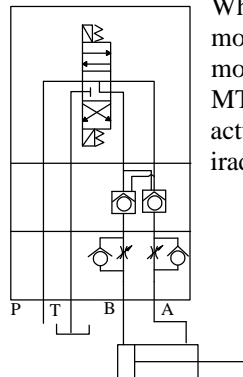
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(D.G. Series)  
Pilot Check Valve  
(MPC Series)  
Flow Control  
(MTC Series)

X WRONG



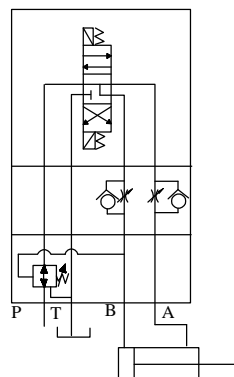
CORRECT



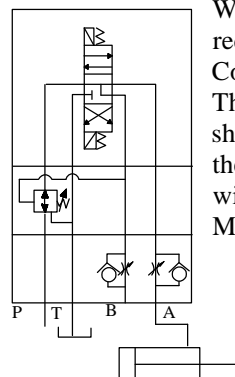
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SOLENOID VALVE  
(D.G. Series)  
Pressure Reducing  
(MGV Series)  
Flow Control  
(MTC Series)

X WRONG



CORRECT



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# IFP BOLT KITS DIRECTIONAL CONTROL VALVES



SIZE D03  
BOLTS GRADE-12.9(ISO 898)

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| DG03 + 3 MODULES | BKDG03M-3       | BKDG03S-3         | 6.5                |
| DG03 + 4 MODULES | BKDG03M-4       | BKDG03S-4         | 8 1/8              |

NOTE: Bolts should be torqued to 63-80 lb/in

SIZE D05  
BOLTS GRADE-7

|                  | METRIC<br>M6 | INCH<br>1/4-24 UNC | LENGTH<br>(inches) |
|------------------|--------------|--------------------|--------------------|
| DG05 VALVE       | BKDG05M      | BKDG05S            | 1 3/8              |
| DG05 + 1 MODULE  | BKDG05M-1    | BKDG05S-1          | 3 5/8              |
| DG05 + 2 MODULES | BKDG05M-2    | BKDG05S-2          | 5 3/4              |
| DG05 + 3 MODULES | BKDG05M-3    | BKDG05S-3          | 7 1/2              |
| DG05 + 4 MODULES | BKDG05M-4    | BKDG05S-4          | 10 1/8             |

NOTE: Bolts should be torqued to 100-130 lb/in