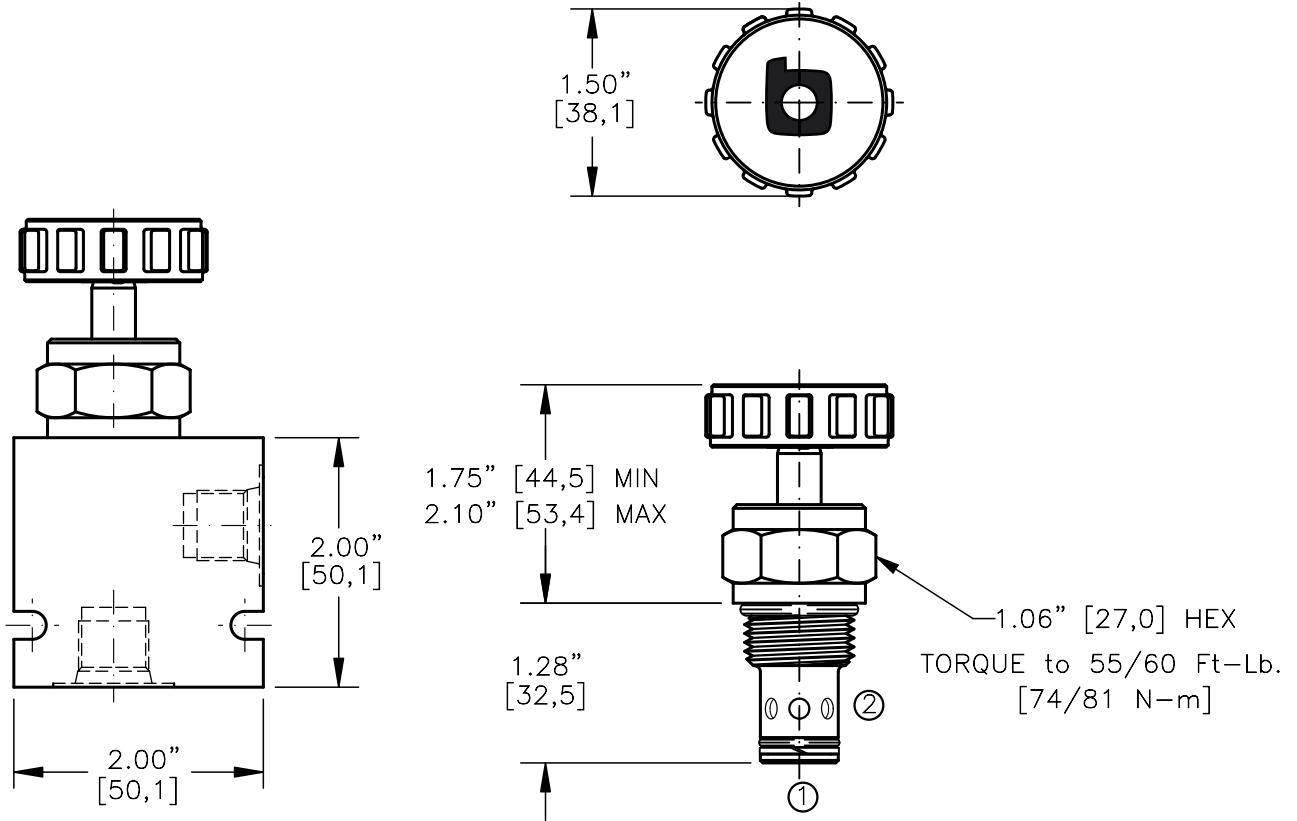
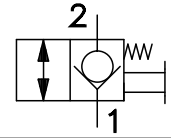


Manual Valves

	MODEL	DESCRIPTION	FLOW	CAVITY	PAGE NO.
	MRPV-10	MANUAL RELEASE VALVE, PULL TO OPEN	18 GPM	C1020	12-012.0
	MPTC-10	MANUAL VALVE, PUSH TO CLOSE	6 GPM	C1020	12-032.0
	MPPV-08-4J MPPV-10-4J	MANUAL VALVE, 4-WAY, 2-POS. SPOOL TYPE	4 GPM 9 GPM	C0840 C1040	12-041.0 12-042.0
	MPPV-08-4K MPPV-10-4K	MANUAL VALVE, 4-WAY, 2-POS. SPOOL TYPE	5 GPM 7 GPM	C0840 C1040	12-051.0 12-052.0
	MPPV-08-4L MPPV-10-4L	MANUAL VALVE, 4-WAY, 2-POS. SPOOL TYPE	5 GPM 10 GPM	C0840 C1040	12-061.0 12-062.0
	MPPV-08-4M MPPV-10-4M	MANUAL VALVE, 4-WAY, 2-POS. SPOOL TYPE	5 GPM 10 GPM	C0840 C1040	12-071.0 12-072.0
	CMHP-10	MANUAL HAND PUMP	.25 CU. IN./STROKE	C1020	12-100.0
	MRFC-10	MANUAL ROTARY FLOW CONTROL VALVE	18 GPM	C1020	2-202.0

MANUAL RELEASE VALVE
PULL TO OPEN

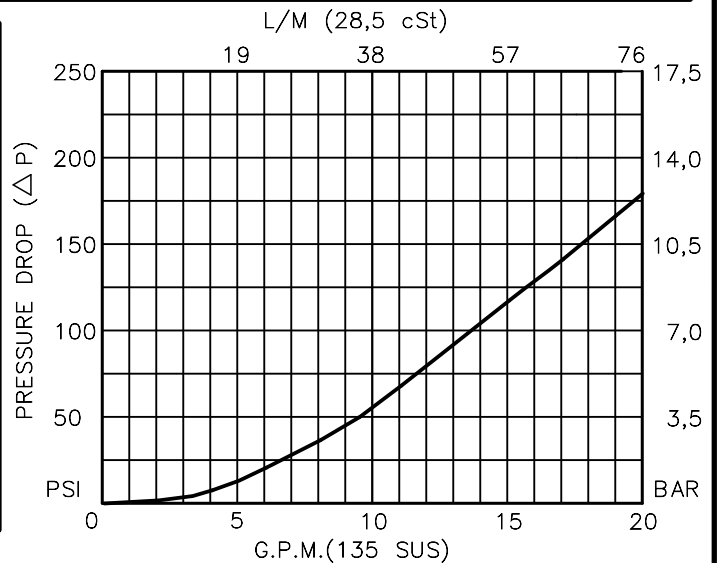


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-012.1

MRPV-10-X-X-X

- BASIC
- SIZE
10 = 7/8"-14UNF
- SEALS
N = BUNA "N"
V = VITON
- ADJUSTMENT
H = METAL HANDKNOB
K = HANDKNOB
0 = NO KNOB
- PORTS = CARTRIDGE ONLY
0 = G 1/4" BSPP
02BX = G 3/8" BSPP
03BX = SAE - #6
06TX = SAE - #8
08TX "A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.1



**MANUAL RELEASE VALVE
PULL TO OPEN****DESCRIPTION**

This unit is a SCREW IN, cartridge type, guided poppet, spring biased closed, pull to open, hydraulic manual release valve.

OPERATIONS

This valve allows free flow from port 1 to port 2 at 175 PSI [12,0 BAR] and blocks flow from port 2 to port 1 or holding a load.

FEATURES AND BENEFITS

Low effort leakproof valve stem; knob is optional.
Pull to open mechanical effort at rated pressure is 17.5 LBS [8,0 KG.]
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 18.0 GPM [70 l/m] nominal. See performance chart.

INTERNAL LEAKAGE: 5 drops per minute maximum @ 5,000 PSI (350 Bar)

VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum – Anodized.

5000 PSI [350 Bar] = Steel – Unplated.

OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]

OPERATING MEDIA: All general purpose hydraulic fluids such as
MIL-H-5606, SAE-#10, SAE-#20, etc.

INSTALLATION: No restrictions.

SEAL KIT: SKN-1021 Buna "N".

SKV-1021 Viton.

WEIGHT: .31 lb [.14 kg] cartridge only.

VALVE CAVITY: #C1020, See Page 0-012.0.

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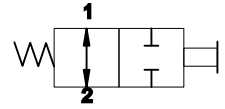
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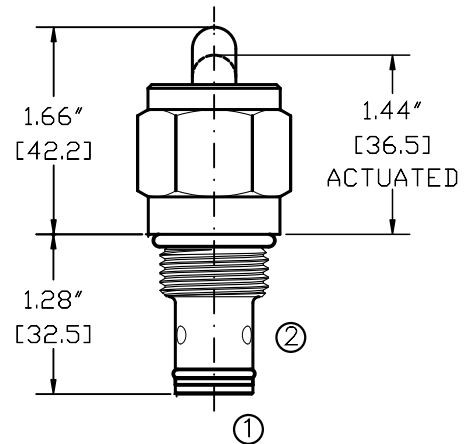
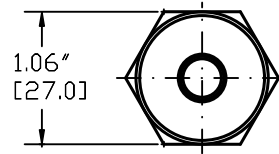
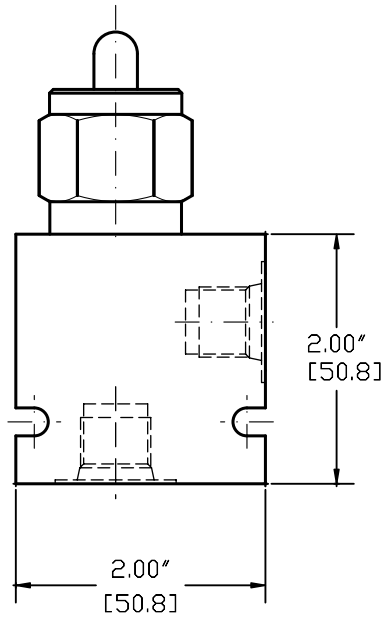
MANUAL VALVE
PUSH TO CLOSE



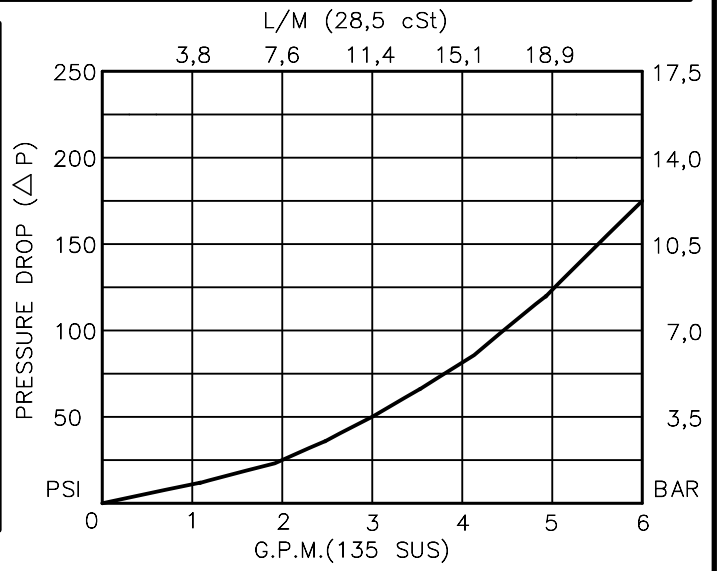
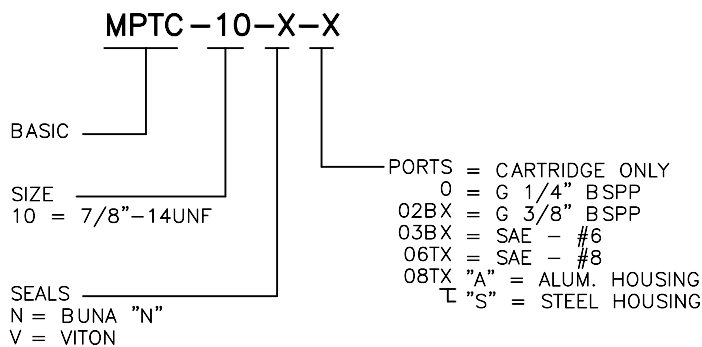
TORQUE:

Steel = 55/60 Ft-Lb. [74/81 Nm]

Aluminum = 35/40 Ft-Lb. [47/54 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-012.1



**MANUAL VALVE
PUSH TO CLOSE****DESCRIPTION**

This unit is a SCREW IN, cartridge type, guided spool, spring biased open, push to close, hydraulic manual valve.

OPERATIONS

This valve allows flow between ports 1 and 2.
When valve is actuated, the spool in this valve is shifted and allows no flow between ports 1 and 2.

FEATURES AND BENEFITS

Low effort leakproof valve stem.
Push to close mechanical effort at rated pressure is 17.5 LBS [8,0 KG.]
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 6.0 GPM [22.7 l/m] nominal. See performance chart.
INTERNAL LEAKAGE: 5 cu.in/min [82 cc/min] @ 5,000 PSI (350 Bar)
VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum – Anodized.
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as
MIL-H-5606, SAE-#10, SAE-#20, etc.
INSTALLATION: No restrictions.
FILTRATION: 25 microns or better.
SEAL KIT: SKN-1021 Buna "N".
SKV-1021 Viton.
WEIGHT: .31 lb [.14 kg] cartridge only.
VALVE CAVITY: #C1020, See Page 0-012.0.

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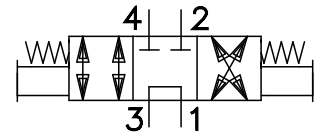
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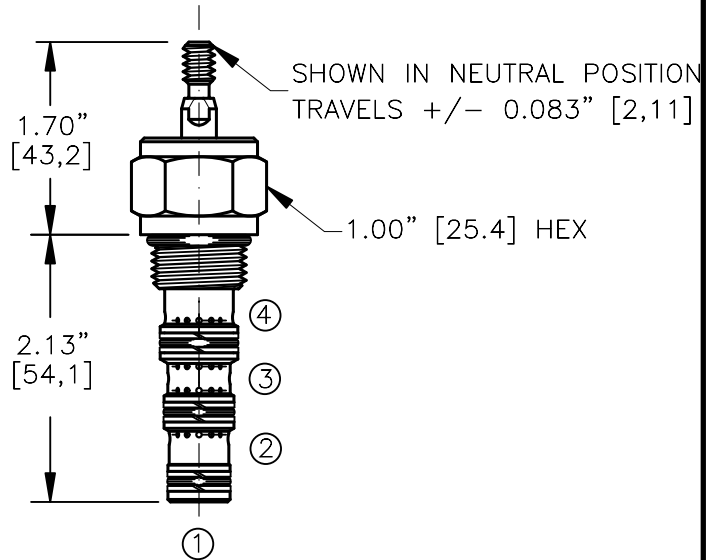
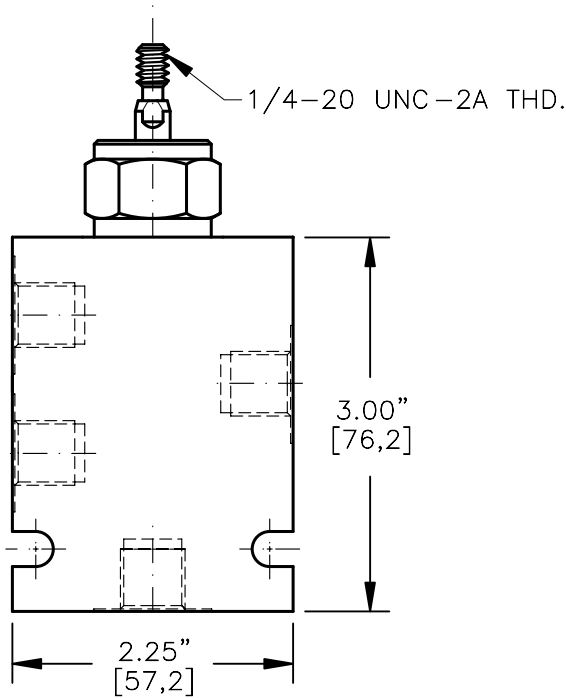
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MANUAL VALVE, 4-WAY, 3-POSITION.
DIRECT ACTING SPOOL



TORQUE:

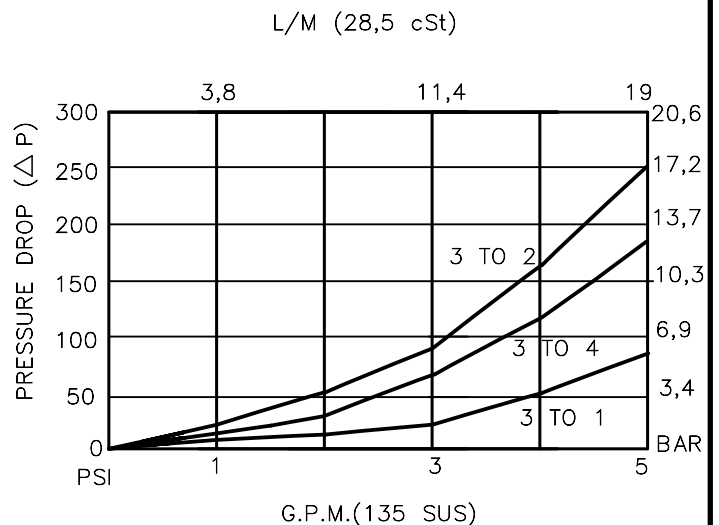
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-041.1

MPPV-08-X-4J-X

- BASIC _____
- SIZE _____
08 = 3/4"-16UNF
- SEALS _____
N = BUNA "N"
V = VITON
- TYPE _____
4J = "J" SPOOL
4-WAY, 3-POSITION
- PORTS _____
0 = CARTRIDGE ONLY
06TX = SAE - #6
08TX = SAE - #8
02BX = 1/4" BSPP
03BX = 3/8" BSPP
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING



MANUAL VALVE 4-WAY, 3-POSITION, SPOOL TYPE**DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, tandem center directional valve.

OPERATIONS

At the initial position, this valve allows flow between ports 3 & 1 and blocks ports 2 & 4.

When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 2 and 3 and ports 1 and 4.

When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 3 and 4 and ports 2 and 1.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life.
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.
The valve has a balanced spool for the actuator to travel easier.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 4.0 GPM [15 l/m] max. See performance chart.

INTERNAL LEAKAGE: 20cu.in/min [328 cc/m] @ 5,000 PSI [350 Bar]

VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum – Anodized.

5000 PSI [350 Bar] = Steel – Unplated.

OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]

OPERATING MEDIA: All general purpose hydraulic fluids such as

MIL-H-5606, SAE-#10, SAE-#20, etc.

ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE

SEAL KIT: SKN-0842 Buna "N"

SKV-0842 Viton

WEIGHT: 0.30 lb [0.14 kg] cartridge only.

VALVE CAVITY: #C0840, See Page 0-041.0.

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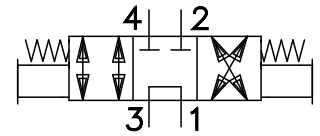
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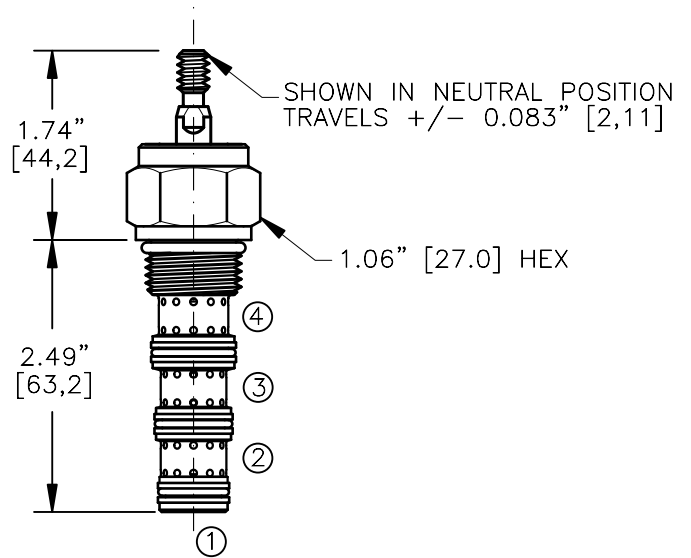
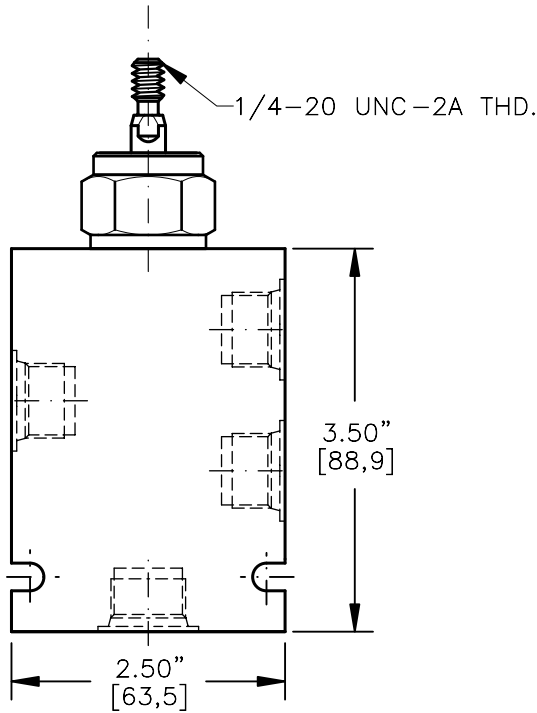
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MANUAL VALVE, 4-WAY, 3-POSITION.
DIRECT ACTING SPOOL

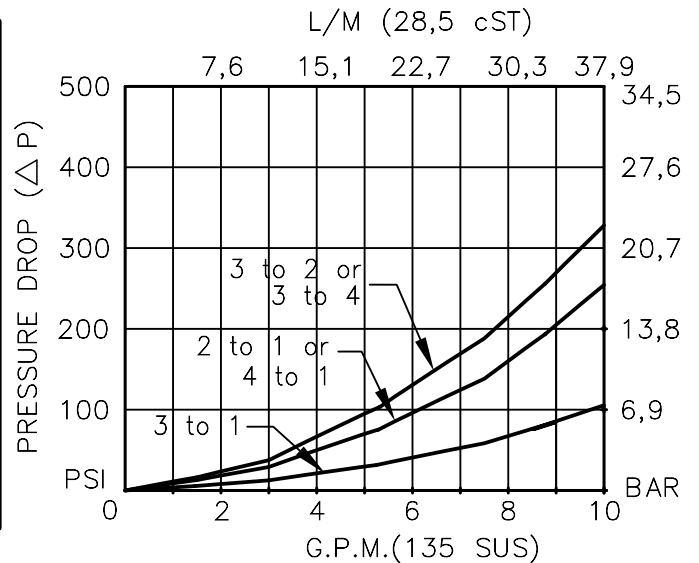
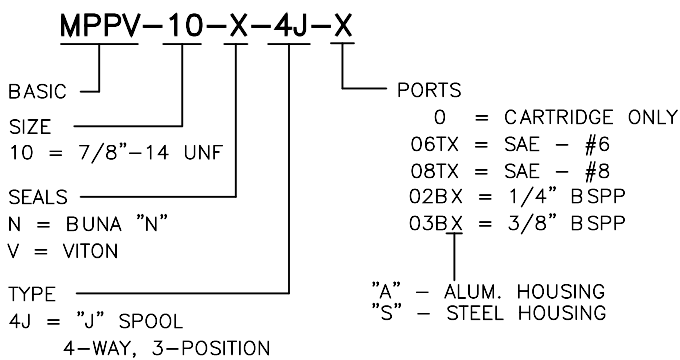


TORQUE:

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-042.1



**MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL****DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, tandem center directional valve.

OPERATIONS

At the initial position, this valve allows flow between ports 3 & 1 and blocks ports 2 & 4.

When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 2 and 3 and ports 1 and 4.

When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 3 and 4 and ports 2 and 1.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life.

All external carbon steel parts are plated for longer life against the elements.

All cartridge valves are 100% functionally tested.

The valve has a balanced spool for the actuator to travel easier.

Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 9.0 GPM [34,1 l/m] max. (SEE PERFORMANCE CHART)

INTERNAL LEAKAGE: 20cu.in/min [328 cc/m] @ 5,000 PSI [350 Bar]

VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum – Anodized.

5000 PSI [350 Bar] = Steel – Unplated.

OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]

OPERATING MEDIA: All general purpose hydraulic fluids such as

MIL-H-5606, SAE-#10, SAE-#20, etc.

ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE

SEAL KIT: SKN-1042 Buna "N"

SKV-1042 Viton

WEIGHT: 0.38 lb [0.18 kg] cartridge only.

VALVE CAVITY: #C1040, See Page 0-042.0.

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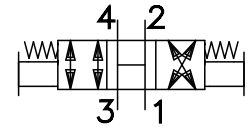
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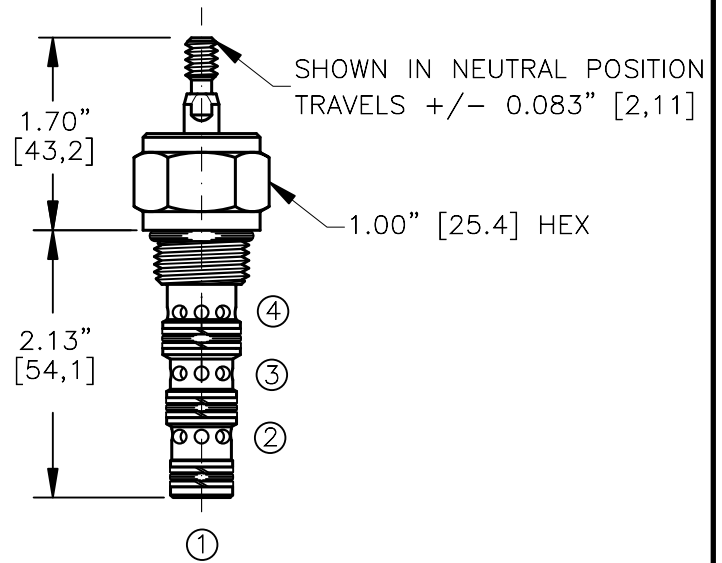
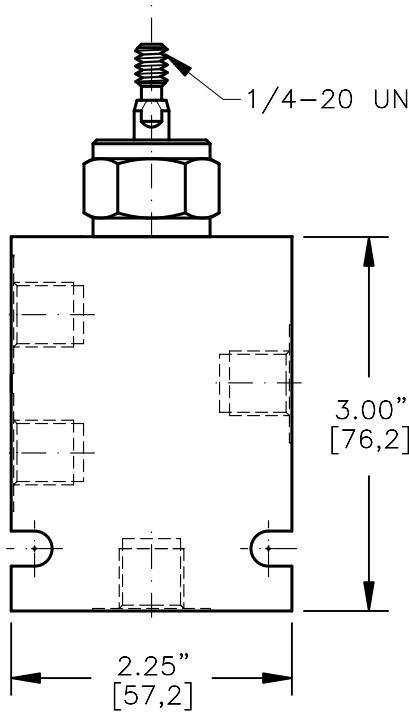
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MANUAL VALVE, 4-WAY, 3-POSITION.
DIRECT ACTING SPOOL

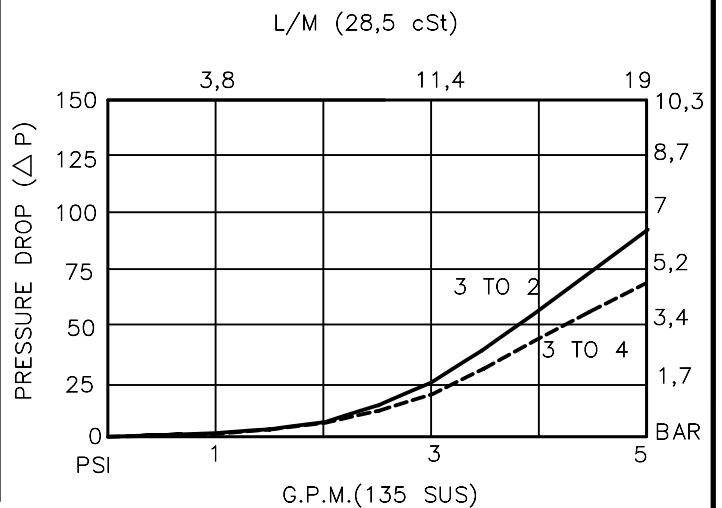
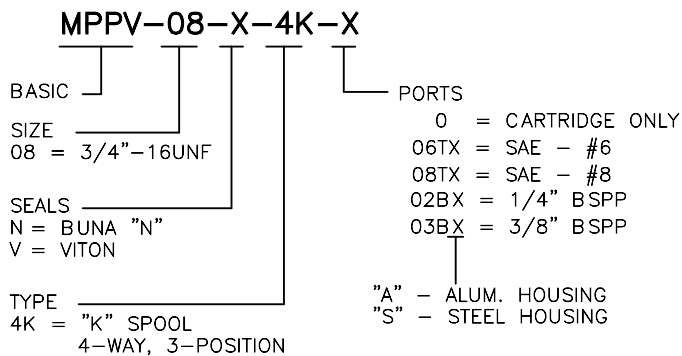


TORQUE:

Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-041.1



MANUAL VALVE 4-WAY, 3-POSITION, SPOOL TYPE.**DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, open center directional valve.

OPERATIONS

At the initial position, this valve allows flow between all ports. When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 1 and 2 and ports 3 and 4. When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 1 and 4 and ports 2 and 3.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life. All external carbon steel parts are plated for longer life against the elements. All cartridge valves are 100% functionally tested. The valve has a balanced spool for the actuator to travel easier. Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 5.0 GPM [19 l/m] max. See performance chart.
INTERNAL LEAKAGE: 10cu.in/min [164 cc/m] @ 5,000 PSI [350 Bar]
VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum - Anodized.
5000 PSI [350 Bar] = Steel - Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE
SEAL KIT: SKN-0842 Buna "N"
SKV-0842 Viton
WEIGHT: 0.30 lb [0.14 kg] cartridge only.
VALVE CAVITY: #C0840, See Page 0-041.0.

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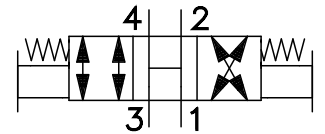
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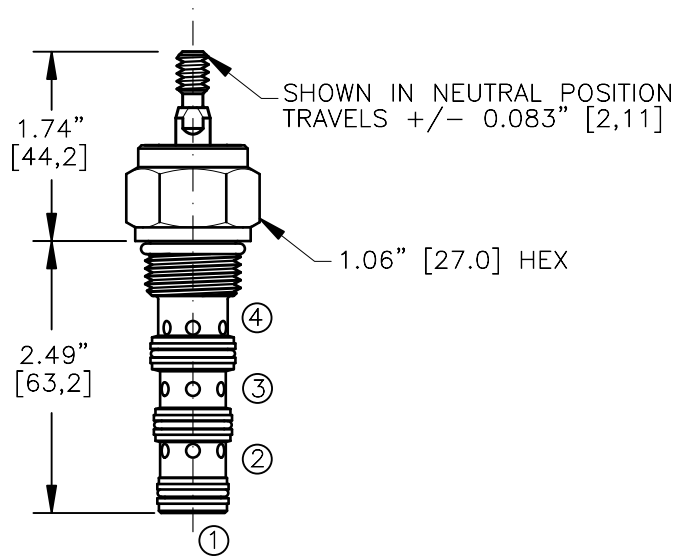
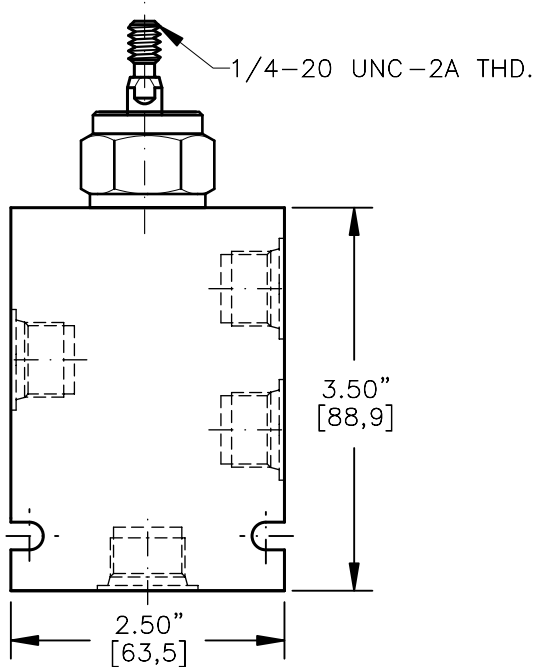
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MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL

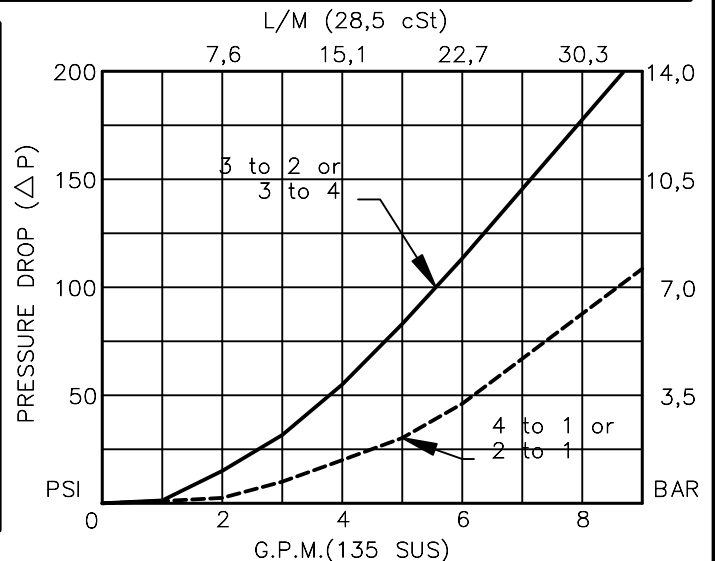
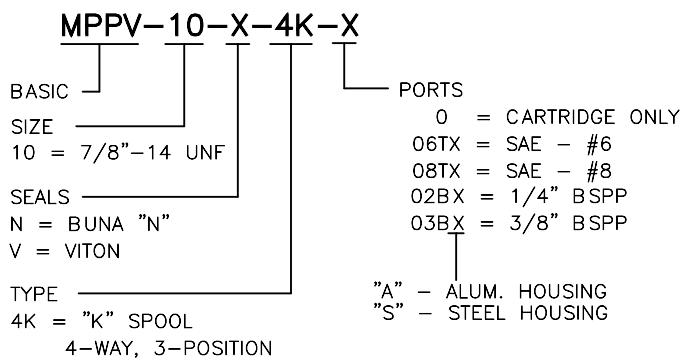


TORQUE:

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-042.1



**MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL****DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, open center directional valve.

OPERATIONS

At the initial position, this valve allows flow between all ports.
When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 1 and 2 and ports 3 and 4.
When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 1 and 4 and ports 2 and 3.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life.
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.
The valve has a balanced spool for the actuator to travel easier.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 7.0 GPM [26,5 l/m] max. (SEE PERFORMANCE CHART)
INTERNAL LEAKAGE: 10 cu.in/min [164 cc/m] @ 5,000 PSI [350 Bar]
VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum – Anodized.
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as
MIL-H-5606, SAE-#10, SAE-#20, etc.
ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE
SEAL KIT: SKN-1042 Buna "N"
SKV-1042 Viton
WEIGHT: 0.38 lb [0.18 kg] cartridge only.
VALVE CAVITY: #C1040, See Page 0-042.0.

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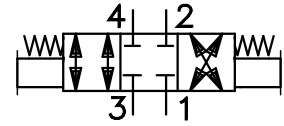
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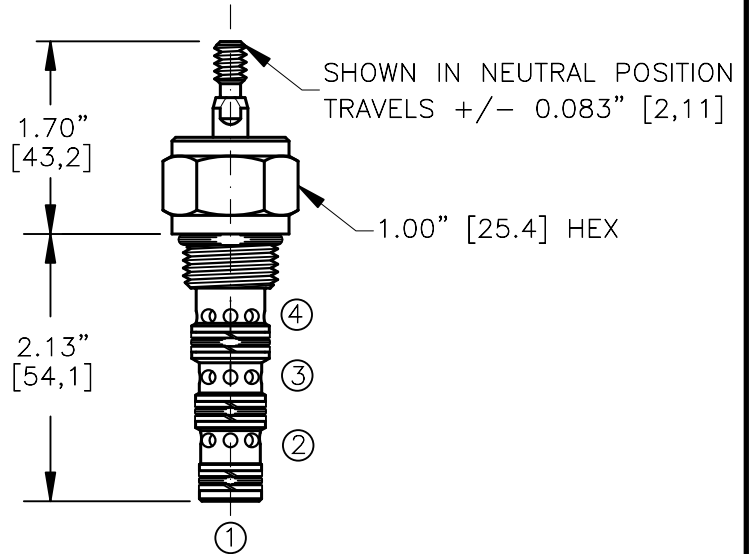
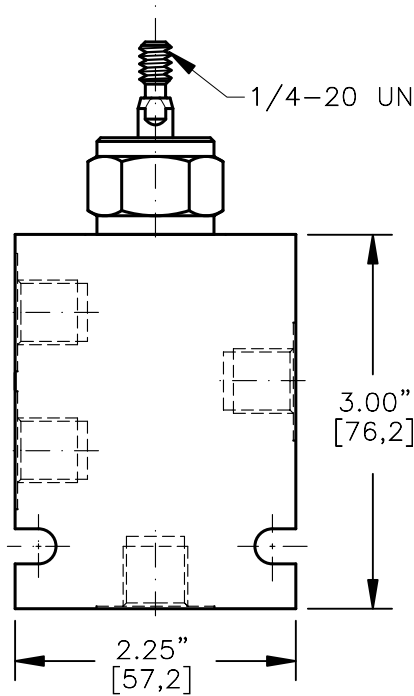
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MANUAL VALVE, 4-WAY, 3-POSITION.
DIRECT ACTING SPOOL

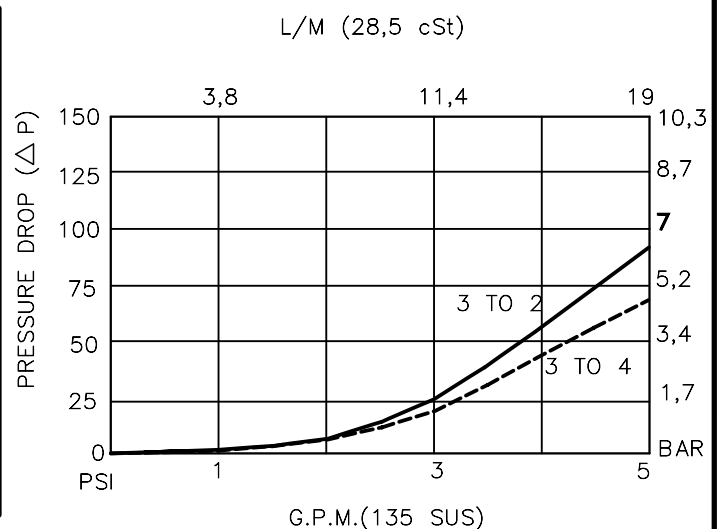
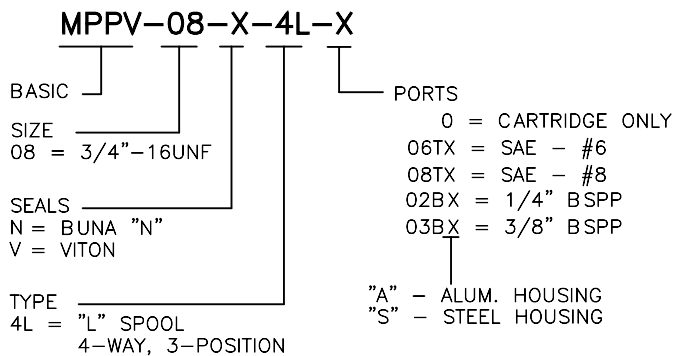


TORQUE:

Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-041.1



MANUAL VALVE 4-WAY, 3-POSITION, SPOOL TYPE**DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, closed center directional valve.

OPERATIONS

At the initial position, flow is totally restricted in all ports.
When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 2 and 1 and ports 3 and 4.
When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 3 and 2 and ports 4 and 1.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life.
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.
The valve has a balanced spool for the actuator to travel easier.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 5.0 GPM [19 l/m] max. See performance chart.
INTERNAL LEAKAGE: 5cu.in/min [82 cc/m] @ 5,000 PSI [350 Bar]
VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum - Anodized.
5000 PSI [350 Bar] = Steel - Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as
MIL-H-5606, SAE-#10, SAE-#20, etc.
ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE
SEAL KIT: SKN-0842 Buna "N"
SKV-0842 Viton
WEIGHT: 0.30 lb [0.14 kg] cartridge only.
VALVE CAVITY: #C0840, See Page 0-041.0.

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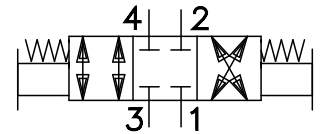
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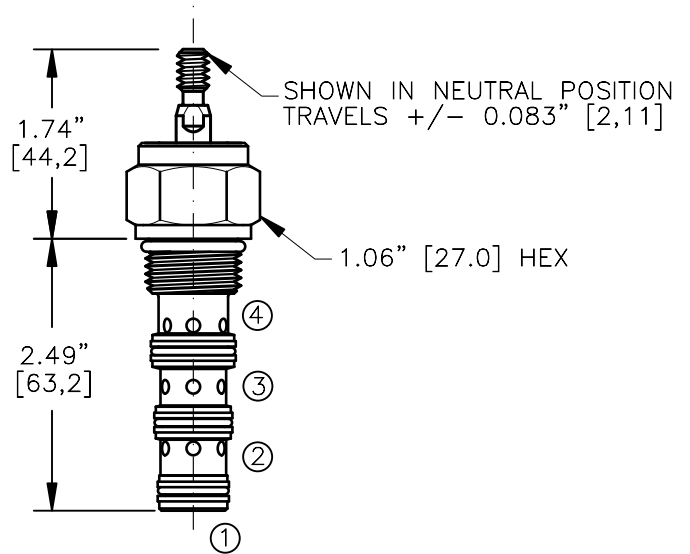
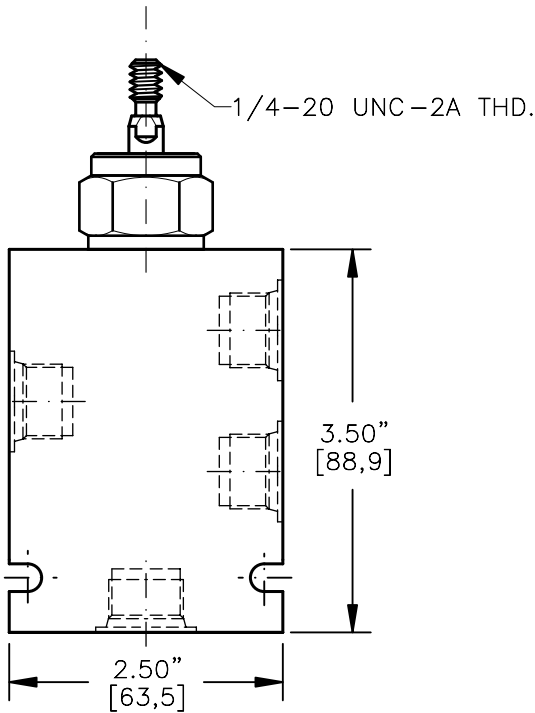
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MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL

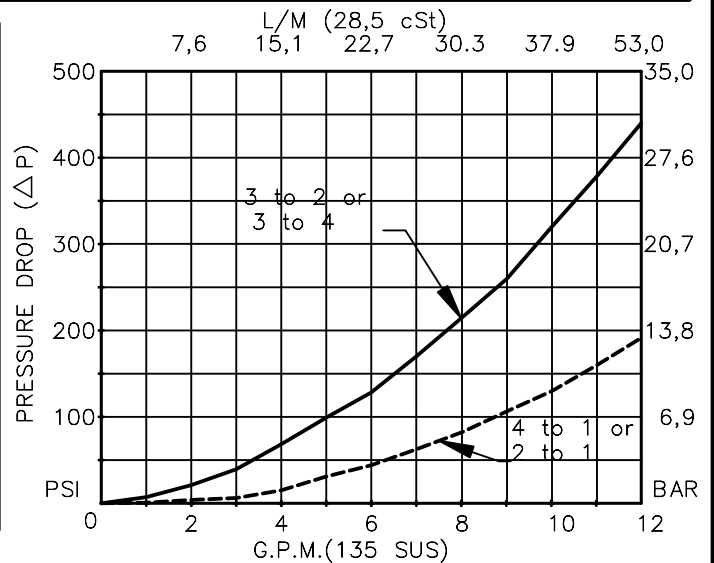
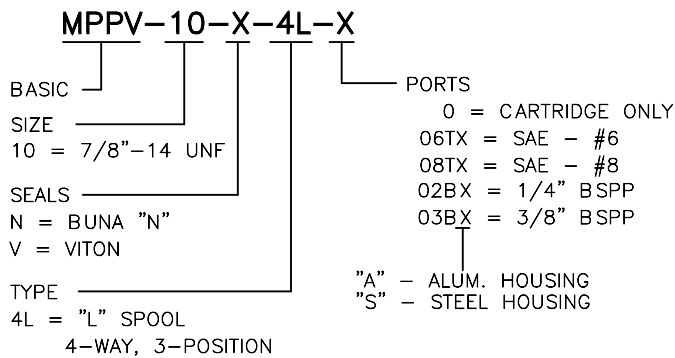


TORQUE:

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-042.1



**MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL****DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, closed center directional valve.

OPERATIONS

At the initial position, flow is totally restricted in all ports.

When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 2 and 1 and ports 3 and 4.

When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 3 and 2 and ports 4 and 1.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life.

All external carbon steel parts are plated for longer life against the elements.

All cartridge valves are 100% functionally tested.

The valve has a balanced spool for the actuator to travel easier.

Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 10.0 GPM [37,9 l/m] max. (SEE PERFORMANCE CHART)

INTERNAL LEAKAGE: 20 cu.in/min [328 cc/m] @ 5,000 PSI [350 Bar]

VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum - Anodized.

5000 PSI [350 Bar] = Steel - Unplated.

OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]

OPERATING MEDIA: All general purpose hydraulic fluids such as

MIL-H-5606, SAE-#10, SAE-#20, etc.

ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE

SEAL KIT: SKN-1042 Buna "N"

SKV-1042 Viton

WEIGHT: 0.38 lb [0.18 kg] cartridge only.

VALVE CAVITY: #C1040, See Page 0-042.0.

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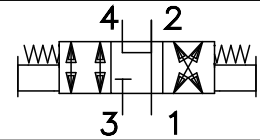
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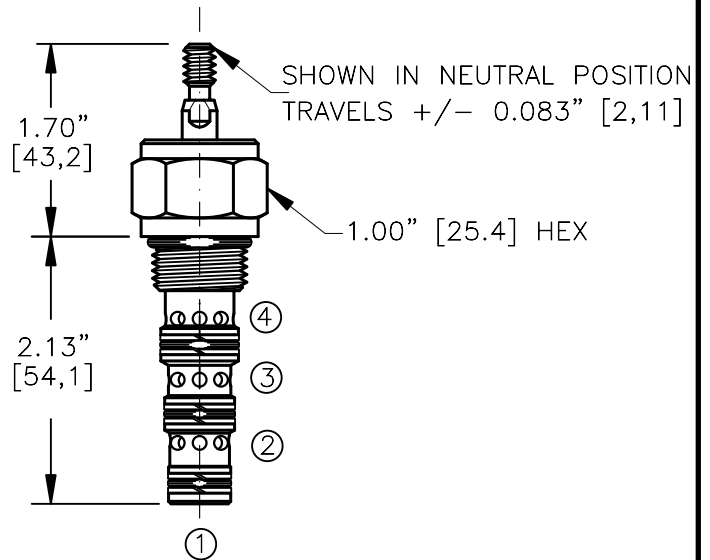
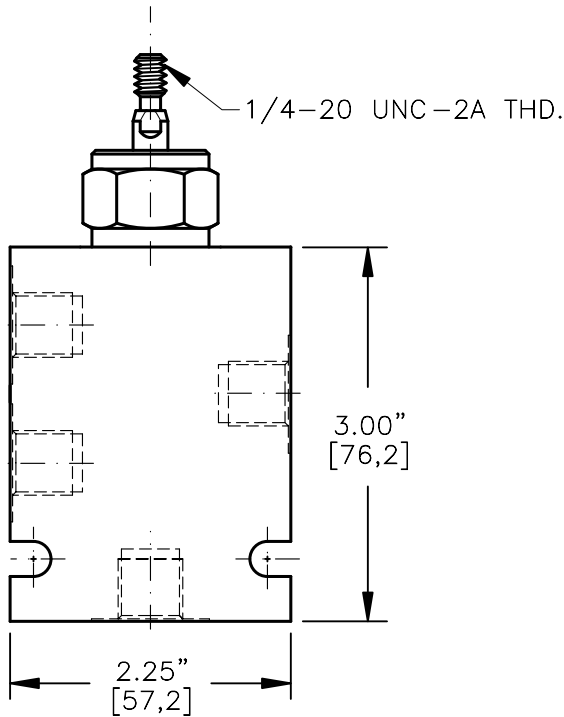
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MANUAL VALVE, 4-WAY, 3-POSITION.
DIRECT ACTING SPOOL

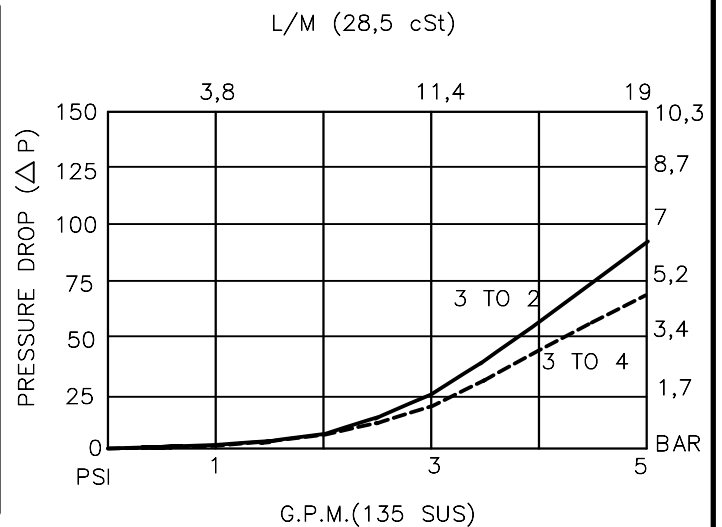
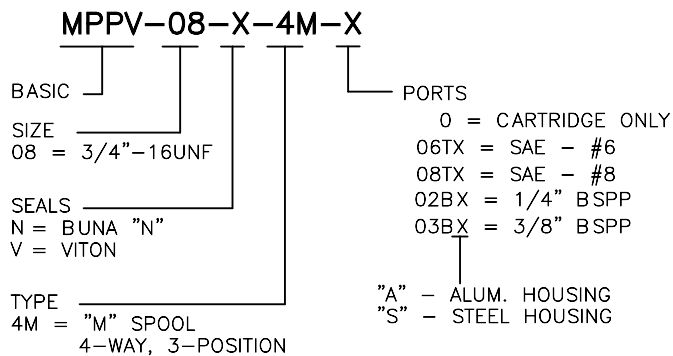


TORQUE:

Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-041.1



MANUAL VALVE 4-WAY, 3-POSITION, SPOOL TYPE.**DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, motor spool directional valve.

OPERATIONS

At the initial position, this valve allows flow between ports 4, 2 & 1. When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 1 and 2 and ports 3 and 4. When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 1 and 4 and ports 2 and 3.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life. All external carbon steel parts are plated for longer life against the elements. All cartridge valves are 100% functionally tested. The valve has a balanced spool for the actuator to travel easier. Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 5.0 GPM [19 l/m] max. See performance chart.

INTERNAL LEAKAGE: 5cu.in/min [82 cc/m] @ 5,000 PSI [350 Bar]

VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum - Anodized.

5000 PSI [350 Bar] = Steel - Unplated.

OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]

OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.

ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE

SEAL KIT: SKN-0842 Buna "N"

SKV-0842 Viton

WEIGHT: 0.30 lb [0.14 kg] cartridge only.

VALVE CAVITY: #C0840, See Page 0-041.0.

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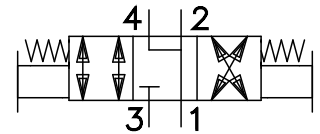
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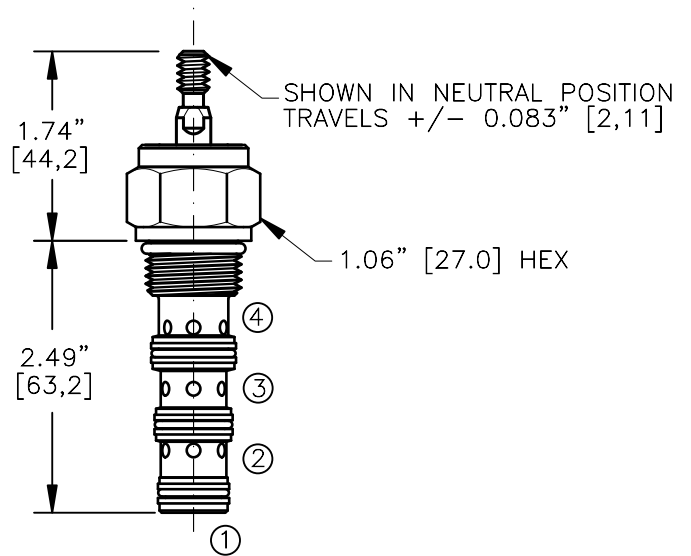
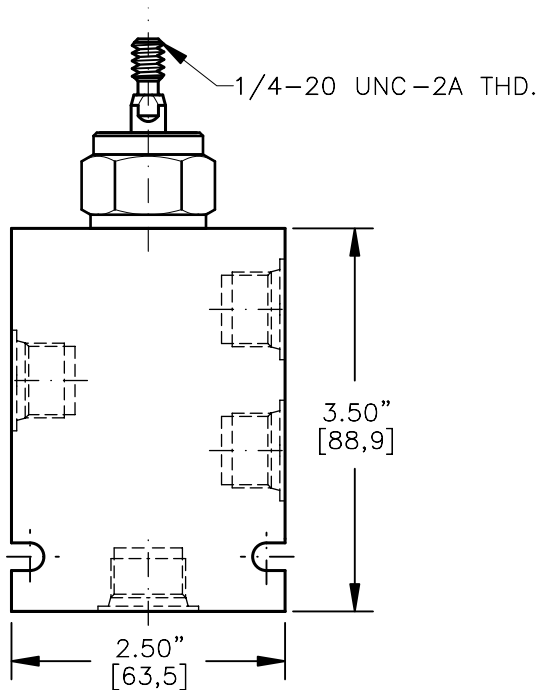
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MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL

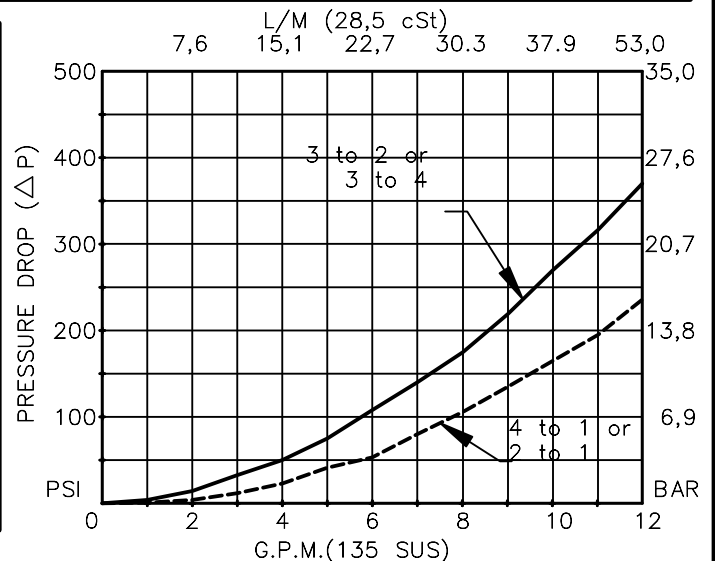
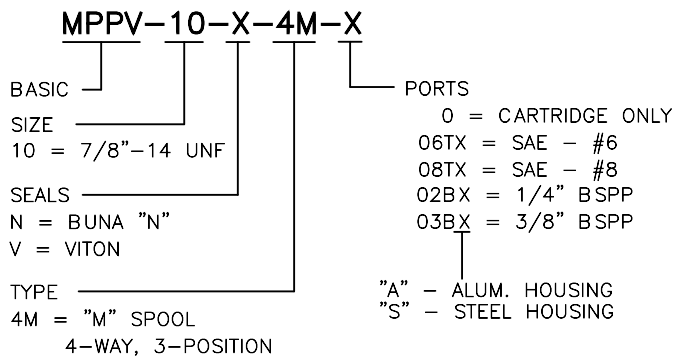


TORQUE:

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-042.1



**MANUAL VALVE, 4-WAY, 3-POSITION,
DIRECT ACTING SPOOL****DESCRIPTION**

This unit is a FOUR-WAY, THREE POSITION, screw-in cartridge type, spool type, direct acting, manually operated, bidirectional, motor spool directional valve.

OPERATIONS

At the initial position, this valve allows flow between ports 4, 2 & 1. When the actuator is pulled upwards, the spool in this valve is shifted and allows flow between ports 1 and 2 and ports 3 and 4. When the actuator is pushed downwards, the spool in this valve is shifted and allows flow between ports 1 and 4 and ports 2 and 3.

FEATURES AND BENEFITS

Hardened precision fit spool & sleeve provides reliable, long life. All external carbon steel parts are plated for longer life against the elements. All cartridge valves are 100% functionally tested. The valve has a balanced spool for the actuator to travel easier. Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
 PROOF PRESSURE: 10,000 PSI [700 Bar]
 FLOW: 10.0 GPM [37,9 l/m] max. (SEE PERFORMANCE CHART)
 INTERNAL LEAKAGE: 10 cu.in/min [164 cc/m] @ 5,000 PSI [350 Bar]
 VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum - Anodized.
 5000 PSI [350 Bar] = Steel - Unplated.
 OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
 OPERATING MEDIA: All general purpose hydraulic fluids such as
 MIL-H-5606, SAE-#10, SAE-#20, etc.
 ACTUATION FORCE: 11.9 LBS TO MOVE ACTUATOR, 15.7 LBS AT FULL STROKE
 SEAL KIT: SKN-1042 Buna "N"
 SKV-1042 Viton
 WEIGHT: 0.38 lb [0.18 kg] cartridge only.
 VALVE CAVITY: #C1040, See Page 0-042.0.

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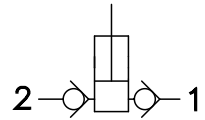
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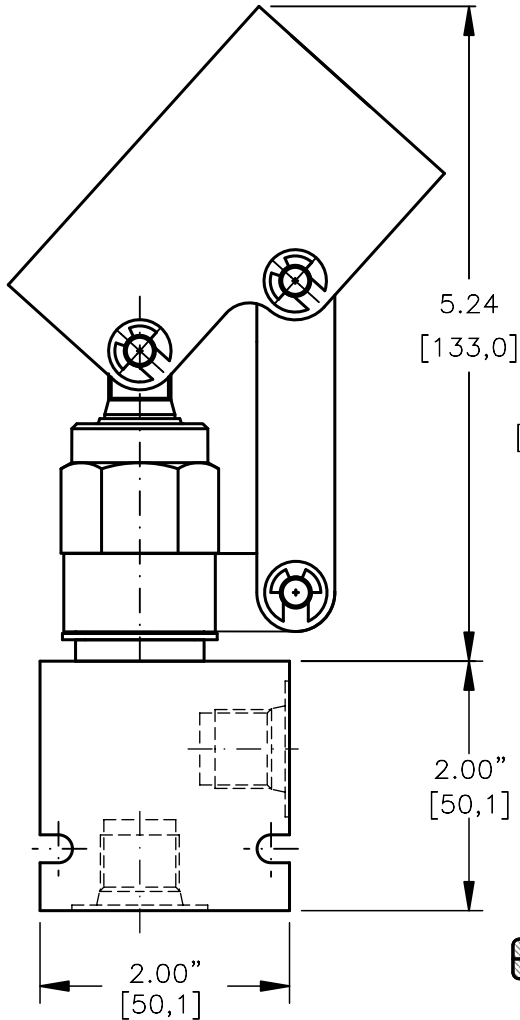
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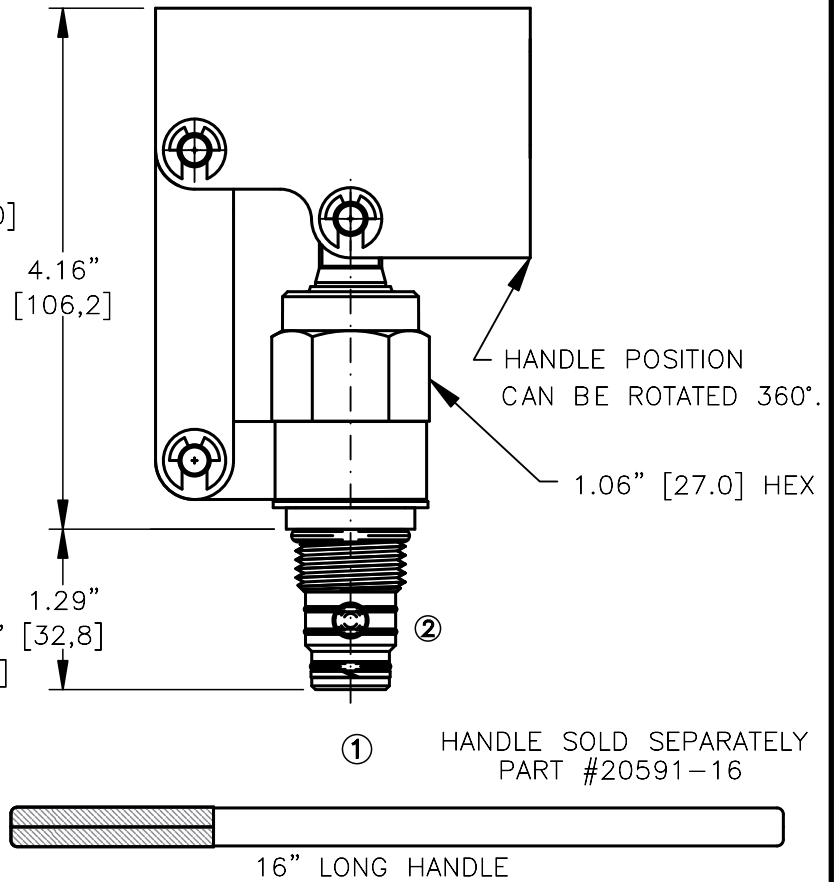
CARTRIDGE MANUAL HAND PUMP
PUSH TO PRESSURIZE OR PULL TO PRESSURIZE



PULL TO PRESSURIZE



PUSH TO PRESSURIZE



TORQUE:

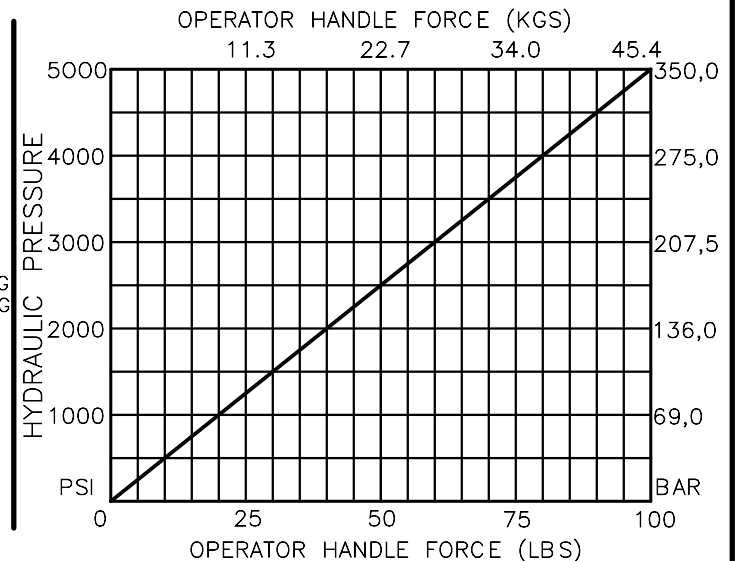
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

HANDLE SOLD SEPARATELY
PART #20591-16

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-012.1

CMHP-10-X-X-X

- BASIC
- SIZE
10 = 7/8"-14UNF
- SEALS
N = BUNA "N"
V = VITON
- TYPE
2 = .250 CUBIC INCHES (4.0 CC)
DISPLACEMENT PER FULL STROKE
- PORTS = CARTRIDGE ONLY
0 = G 1/4" BSPP
02BX = G 3/8" BSPP
03BX = SAE - #6
06TX = SAE - #8
08TX "A" = ALUM. HOUSING
"S" = STEEL HOUSING



CARTRIDGE MANUAL HAND PUMP PULL TO PRESSURIZE OR PUSH TO PRESSURIZE

DESCRIPTION

This unit is a SCREW IN, cartridge type, plunger type, push to pressurize or pull to pressurize, hydraulic manual hand pump.

OPERATIONS

This hand pump allows free flow from port 1 to port 2 when plunger is pulled out and pressurize port 2 when plunger is pushed in. Handle position can be rotated 360° around the vertical axis.

FEATURES AND BENEFITS

Low effort leakproof pump plunger with 16" handle delivers .250 cu/in per one full stroke.

Pull the plunger out to fill the cylinder, push the plunger in to pressurize.

All external carbon steel parts are plated for longer life against the elements. All cartridge hand pumps are 100% functionally tested. Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: .250 cu/in [4,0 cc] per full stroke . See performance chart.

INTERNAL LEAKAGE: 5 drops per minute maximum @ 5,000 PSI (350 Bar)

VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum – Anodized.

5000 PSI [350 Bar] = Steel – Unplated.

OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]

OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.

INSTALLATION: No restrictions.

SEAL KIT: SKN-1021 Buna "N".

SKV-1021 Viton.

WEIGHT: 2.9 lb [.85 kg] cartridge with handle.

VALVE CAVITY: #C1020, See Page 0-012.0.

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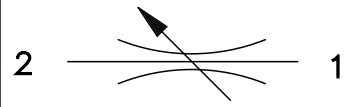
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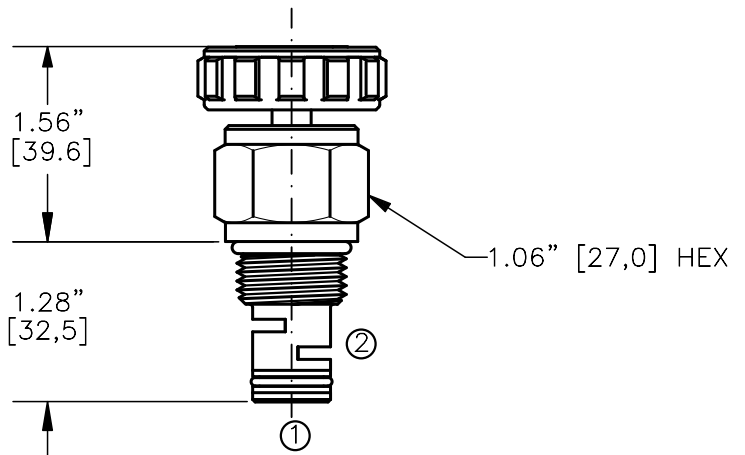
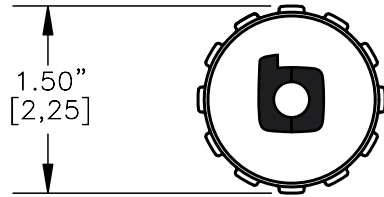
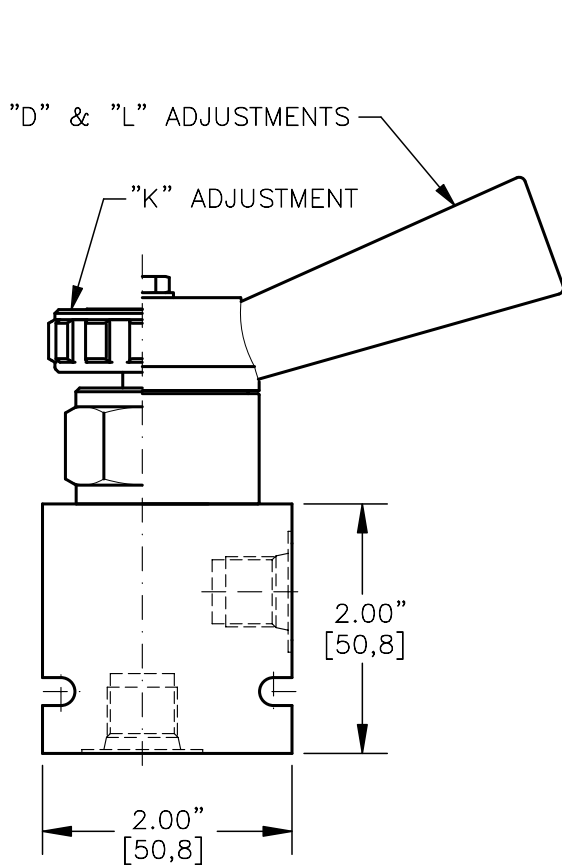
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MANUAL ROTARY FLOW CONTROL VALVE



TORQUE:

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

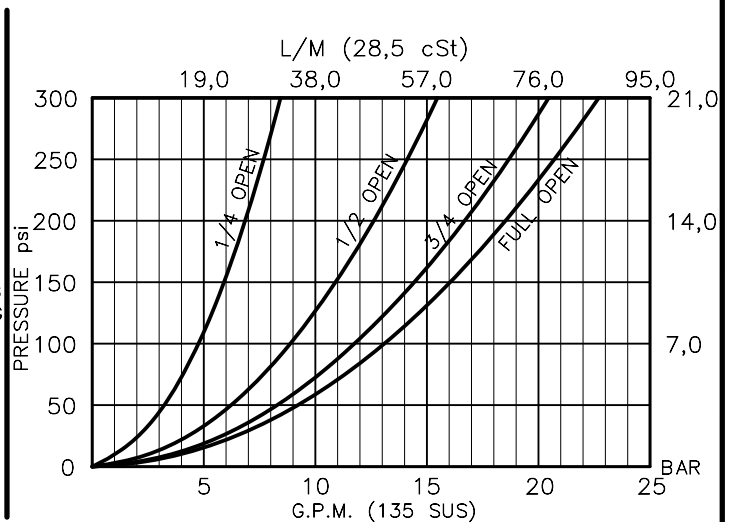


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-012.1

MRFC-10-X-X-X

- BASIC
- SIZE
10 = 7/8"-14UNF
- SEALS
N = BUNA "N" = VITON
V
- ADJUSTMENT
K = HANDKNOB
H = METAL HANDKNOB
O = NO KNOB
G = GRADUATED METAL KNOB
D = LEVER WITH DETENTS
L = LEVER WITH FRICTION LOCK
- PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8
L "A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.1



MANUAL ROTARY FLOW CONTROL VALVE

DESCRIPTION

This unit is a SCREW IN, cartridge type, non-compensated, adjustable, bi-directional rotary flow control valve.

OPERATIONS

This valve increases its orifice value from fully closed to fully open in 1/2 turn with counterclockwise rotation.

FEATURES AND BENEFITS

Fine and low effort leakproof adjustment; knob is optional.
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 18.0 GPM [68 l/m] nominal. See performance chart.
SHAFT ROTATION IS 160° FROM FULL OPEN TO CLOSED
INTERNAL LEAKAGE: 5 cu.in./min. [82 cc/m] @ 5,000 PSI (350 Bar)
VALVE HOUSINGS: 2500 PSI [175 Bar] = Aluminum - Anodized.
5000 PSI [350 Bar] = Steel - Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as
MIL-H-5606, SAE-#10, SAE-#20, etc.
INSTALLATION: No restrictions.
SEAL KIT: SKN-1022 Buna "N".
SKV-1022 Viton.
WEIGHT: .31 lb [.14 kg] cartridge only.
VALVE CAVITY: #C1020, See Page 0-012.0.

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