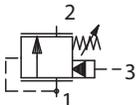
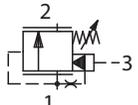
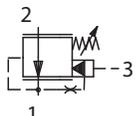
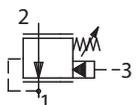
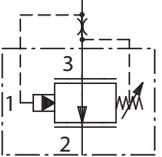
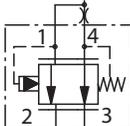
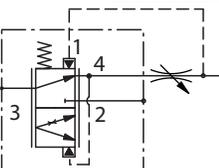
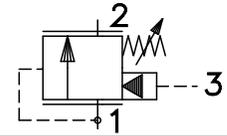


Logic and Compensator Elements

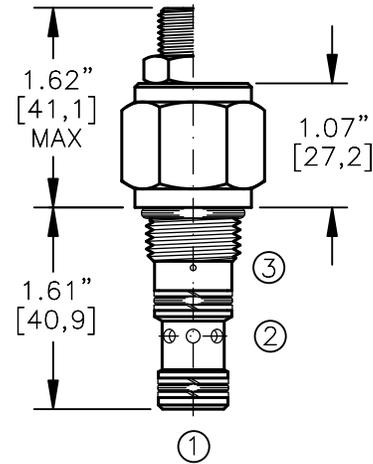
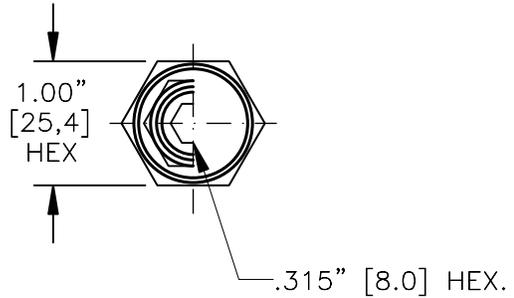
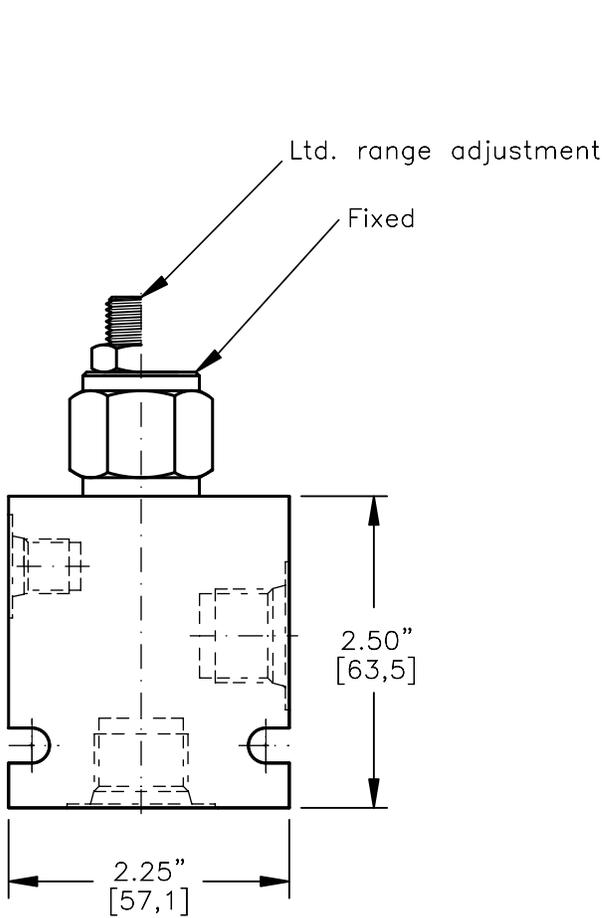
	MODEL	DESCRIPTION	FLOW	CAVITY
	LCEF-08-A LCEF-10-A LCEF-12-A	SPOOL TYPE, PILOT TO CLOSE, SPOOL "A"	10 GPM 20 GPM 36 GPM	C0825 C1025 C1225
	LCEF-08-C LCEF-10-C LCEF-12-C	SPOOL TYPE, VENT TO OPEN, SPOOL "C"	10 GPM 20 GPM 36 GPM	C0825 C1025 C1225
	LCEF-08-D LCEF-10-D LCEF-12-D	SPOOL TYPE, VENT TO CLOSE, SPOOL "D"	10 GPM 20 GPM 36 GPM	C0825 C1025 C1225
	LCEF-08-F LCEF-10-F LCEF-12-F	SPOOL TYPE, PILOT TO OPEN, SPOOL "F"	10 GPM 20 GPM 36 GPM	C0825 C1025 C1225
	PCEI-08 PCEI-10 PCEI-12 PCEI-16	PRESSURE COMPENSATOR, INLINE TYPE	6 GPM 10 GPM 24 GPM 36 GPM	C0830 C1030 C1230 C1630
	PCEB-08 PCEB-10 PCEB-12 PCEB-16	PRESSURE COMPENSATOR, PRIORITY TYPE	8 GPM 18 GPM 32 GPM 36 GPM	C0840 C1040 C1240 C1640
	PODS-08 PODS-10 PODS-12 PODS-16 PODS-20	PRIORITY ON DEMAND, SPOOL TYPE	8 GPM 16 GPM 24 GPM 36 GPM 60 GPM	C0840 C1040 C1240 C1640 C2040

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A"



TORQUE:

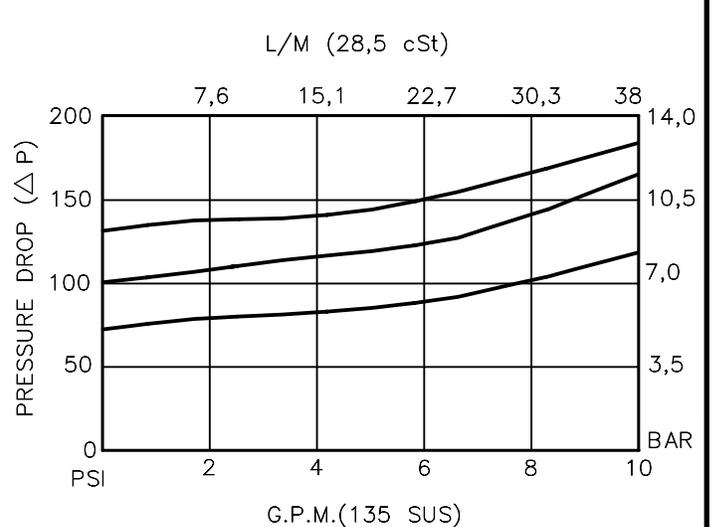
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-021.1

LCEF-08-X-A-X-X-XXX

- BASIC
- SIZE
08 = 3/4"-16 UNF
- SEALS
N = BUNA "N"
V = VITON
- SPOOL
"A"=SPOOL (PILOT TO CLOSE)
- ADJUSTMENT
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB
- FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0
- PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)
- PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
08TX = SAE - #8
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING



LOGIC CONTROL ELEMENT

SPOOL TYPE, PILOT TO CLOSE, SPOOL "A"

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional pressure or flow control devices.

OPERATIONS

This valve blocks flow from port 1 to port 2 with a spring bias. It will shift to allow full flow from port 1 to port 2 only when the pressure in port 1 exceeds the cumulative pressure of port 3 plus the bias spring force value.

When no pressure is present at port 3, it will allow flow from port 1 to port 2 once the bias spring force is overcome by the pressure in port 1. This is pilot to close directional logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A"**SPECIFICATIONS**

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 10.0 GPM [38 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-0827 for buna "N".

SKV-0827 for viton.

WEIGHT: 0.28 lb [.13 kg] cartridge only.

VALVE CAVITY: #C0825, See Page 0-021.0.

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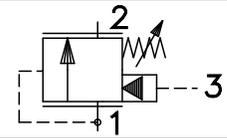
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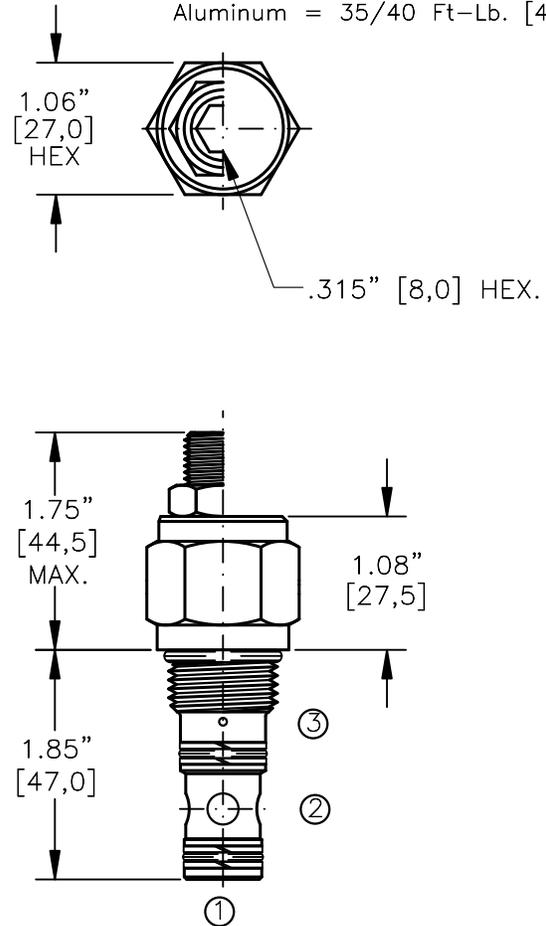
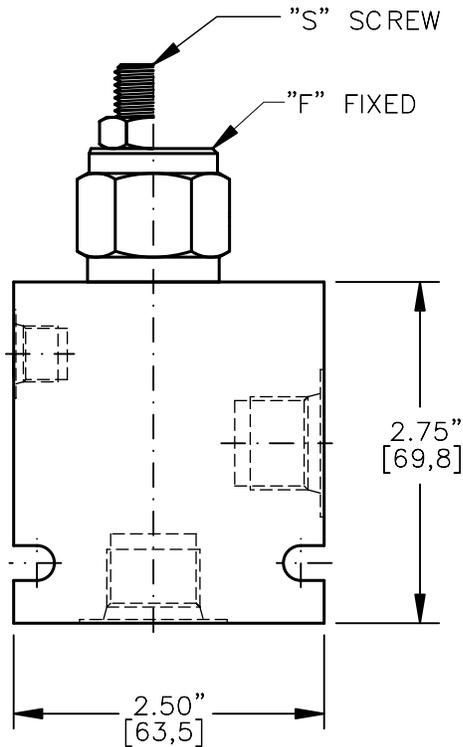
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LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A".



TORQUE:

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

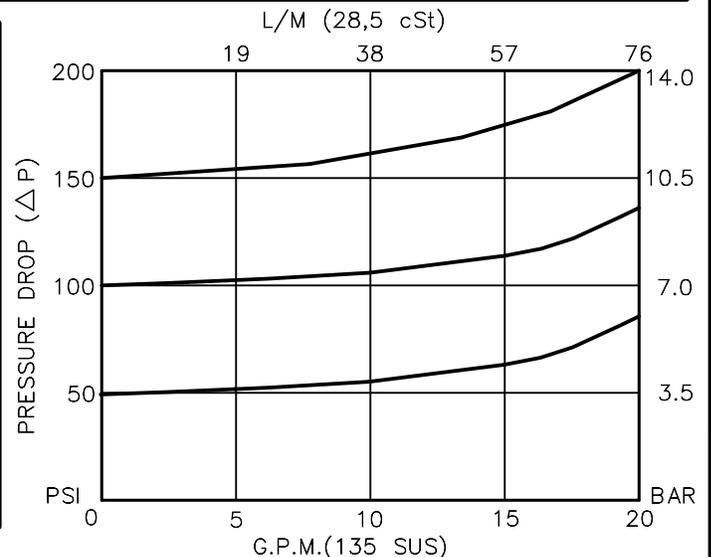


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-022.1

LCEF-10-X-A-X-X-XXX

- BASIC
- SIZE
- 10 = 7/8"-14 UNF
- SEALS
- N = BUNA "N"
- V = VITON
- SPOOL
- "A"=SPOOL (PILOT TO CLOSE)
- ADJUSTMENT
- F = FIXED (FACTORY SET)
- S = ADJUSTING SCREW
- C = CAPPED
- T = TAMPERPROOF
- K = HANDKNOB
- M = METAL HANDKNOB
- FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

- PRESSURE BIAS SPRING
- 070 = 70 PSI (FIXED)
- 100 = 100 PSI (FIXED)
- 160 = 40-160 PSI (ADJ)
- PORTS
- 0 = CARTRIDGE ONLY
- 03BX = G 3/8" BSPP
- 04BX = G 1/2" BSPP
- 08TX = SAE - #8
- 10TX = SAE - #10
- "A" - ALUM. HOUSING
- "S" - STEEL HOUSING



LOGIC CONTROL ELEMENT

SPOOL TYPE, PILOT TO CLOSE, SPOOL "A".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve blocks flow from port 1 to port 2 with a spring bias. It will shift to allow full flow from port 1 to port 2 only when the pressure in port 1 exceeds the cumulative pressure of port 3 plus the bias spring force value.

When no pressure is present at port 3, it will allow flow from port 1 to port 2 once the bias spring force is overcome by the pressure in port 1. This is pilot to close directional logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 20.0 GPM [76 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1027 for buna "N".

SKV-1027 for viton.

WEIGHT: 0.46 lb [.21 kg] cartridge only.

VALVE CAVITY: #C1025, See Page 0-022.0.

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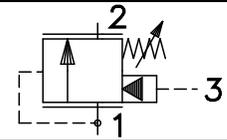
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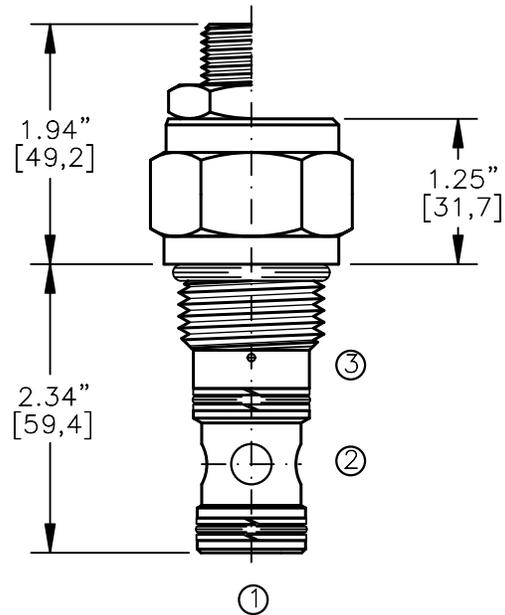
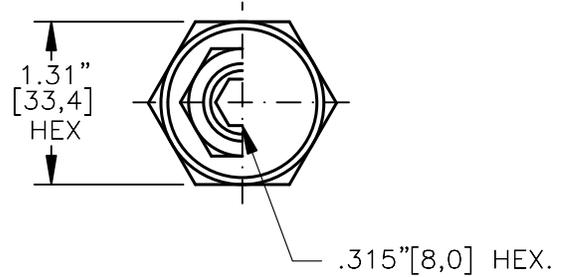
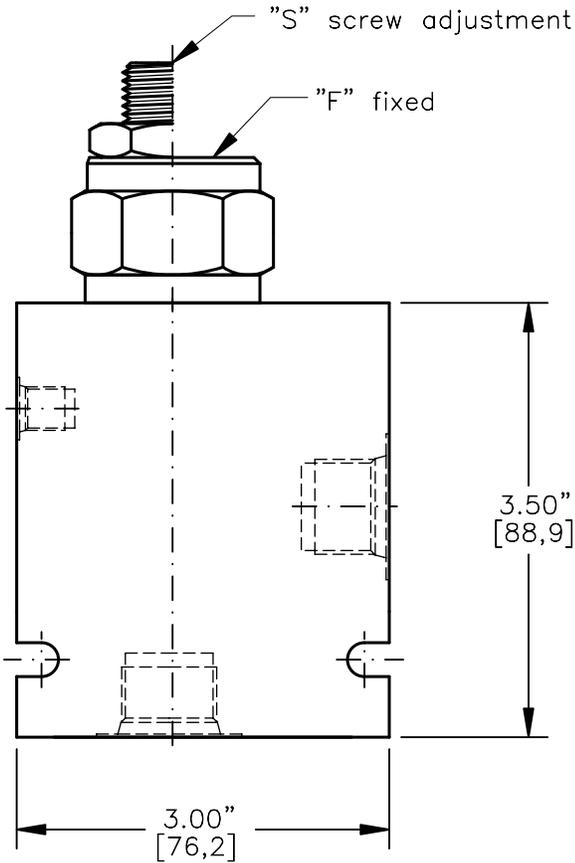
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LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A".



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]
Aluminum = 55/60 Ft-Lb. [74/81 Nm]



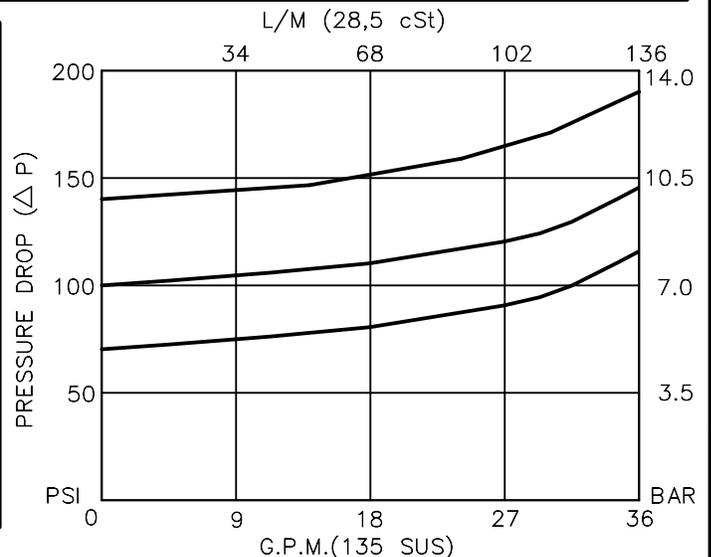
FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-023-1.

LCEF-12-X-A-X-X-XXX

- BASIC
- SIZE
12 = 1.062"-12 UNF
- SEALS
N = BUNA "N"
V = VITON
- SPOOL
"A"=SPOOL (PILOT TO CLOSE)
- ADJUSTMENT
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF

- PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)
- PORTS
0 = CARTRIDGE ONLY
04BX = G 1/2" BSPP
06BX = G 3/4" BSPP
10TX = SAE - #10
12TX = SAE - #12
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



LOGIC CONTROL ELEMENT

SPOOL TYPE, PILOT TO CLOSE, SPOOL "A".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve blocks flow from port 1 to port 2 with a spring bias. It will shift to allow full flow from port 1 to port 2 only when the pressure in port 1 exceeds the cumulative pressure of port 3 plus the bias spring force value.

When no pressure is present at port 3, it will allow flow from port 1 to port 2 once the bias spring force is overcome by the pressure in port 1. This is pilot to close directional logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof and capped adjustments.

All cartridge valves are 100% functionally tested.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 36.0 GPM [136 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1227 for Buna "N".

SKV-1227 for Viton.

WEIGHT: 0.84 lb [.38 kg] cartridge only.

VALVE CAVITY: #C1225, See Page 0-023.0.

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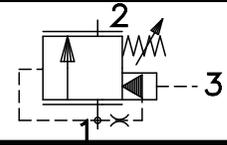
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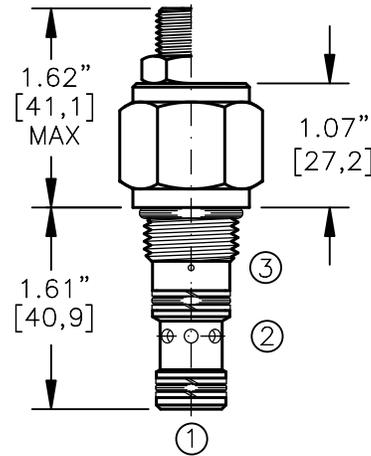
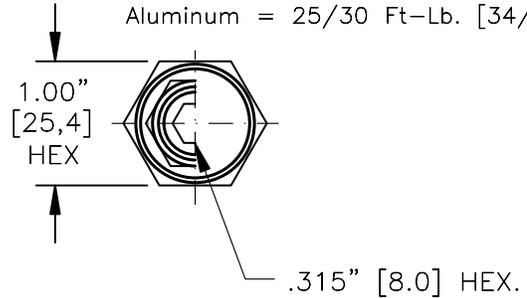
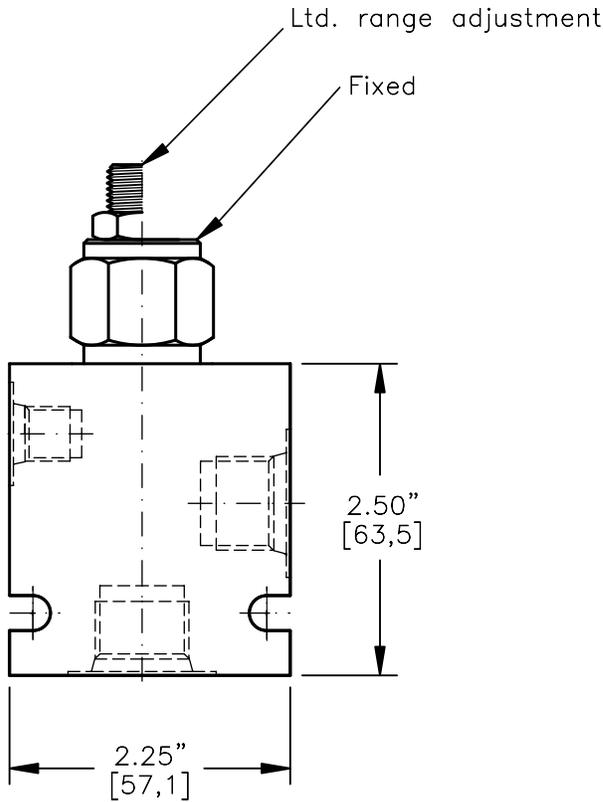
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LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO OPEN, SPOOL "C"



TORQUE:

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

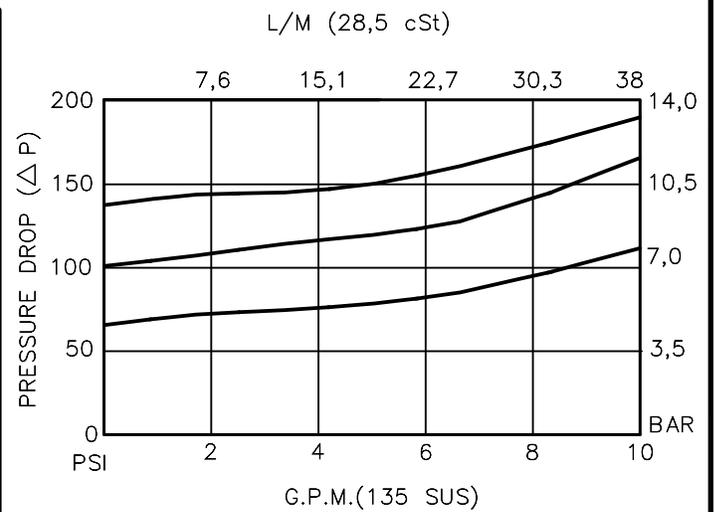


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-021.1

LCEF-08-X-C-X-X-XXX

- BASIC SIZE
08 = 3/4"-16 UNF
- SEALS
N = BUNA "N"
V = VITON
- SPOOL
"C" = SPOOL (VENT TO OPEN)
- ADJUSTMENT
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB
- FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

- PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)
- PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
08TX = SAE - #8
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING



LOGIC CONTROL ELEMENT

SPOOL TYPE, VENT TO OPEN, SPOOL "C"

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve blocks flow from port 1 to port 2 with a spring bias. It will shift to allow full flow from port 1 to port 2 only when there is no pressure in port 3. Valve will close when port 3 is blocked and will maintain the same pressure plus the bias spring force value. When no pressure is present at port 3, it will allow flow from port 1 to port 2 once the bias spring force is overcome by the pressure in port 1. This is vent to open directional logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO OPEN, SPOOL "C"**SPECIFICATIONS**

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 10.0 GPM [38 L/M] nominal. See performance chart.
INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
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 restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN-0827 for buna "N".
SKV-0827 for viton.
WEIGHT: 0.28 lb [.13 kg] cartridge only.
VALVE CAVITY: #C0825, See Page 0-021.0.

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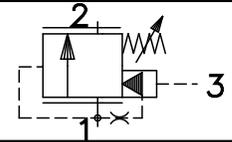
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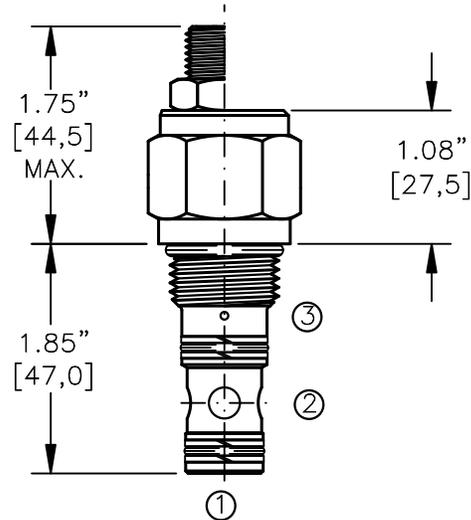
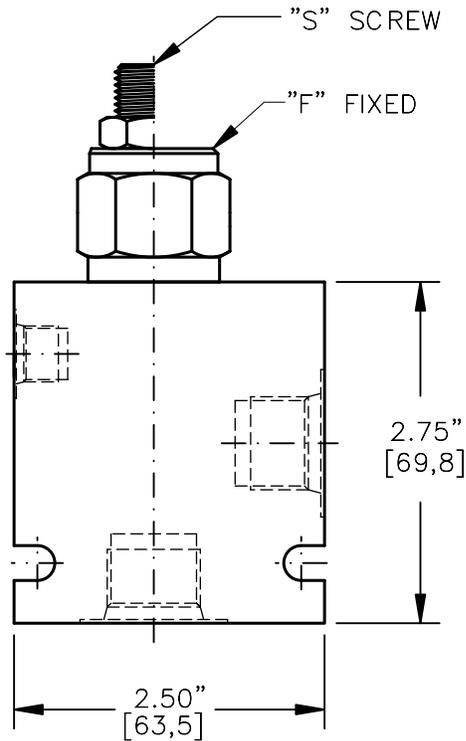
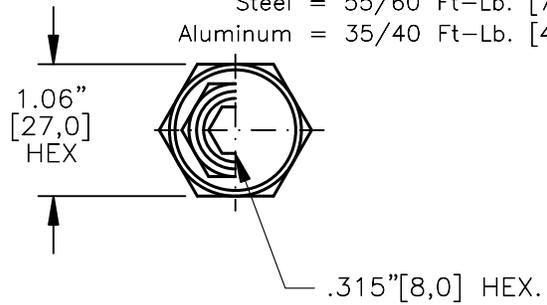
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LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO OPEN, SPOOL "C".



TORQUE:

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

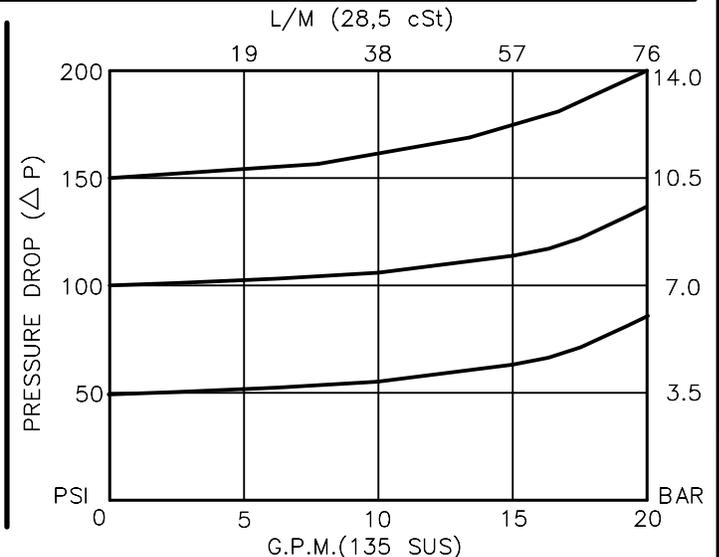


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-022.1

LCEF-10-X-C-X-X-XXX

- BASIC
SIZE
10 = 7/8"-14 UNF
SEALS
N = BUNA "N"
V = VITON
SPOOL
"C"=SPOOL (VENT TO OPEN)
ADJUSTMENT
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB
FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

- PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)
PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
04BX = G 1/2" BSPP
08TX = SAE - #8
10TX = SAE - #10
"A" - ALUM. HOUSING
"S" - STEEL HOUSING



LOGIC CONTROL ELEMENT

SPOOL TYPE, VENT TO OPEN, SPOOL "C".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve blocks flow from port 1 to port 2 with a spring bias. It will shift to allow full flow from port 1 to port 2 only when there is no pressure in port 3. Valve will close when port 3 is blocked and will maintain the same pressure plus the bias spring force value. When no pressure is present at port 3, it will allow flow from port 1 to port 2 once the bias spring force is overcome by the pressure in port 1. This is vent to open directional logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO OPEN, SPOOL "C".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 20.0 GPM [76 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1027 for buna "N".

SKV-1027 for viton.

WEIGHT: 0.46 lb [.21 kg] cartridge only.

VALVE CAVITY: #C1025, See Page 0-022.0.

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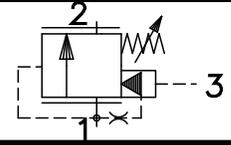
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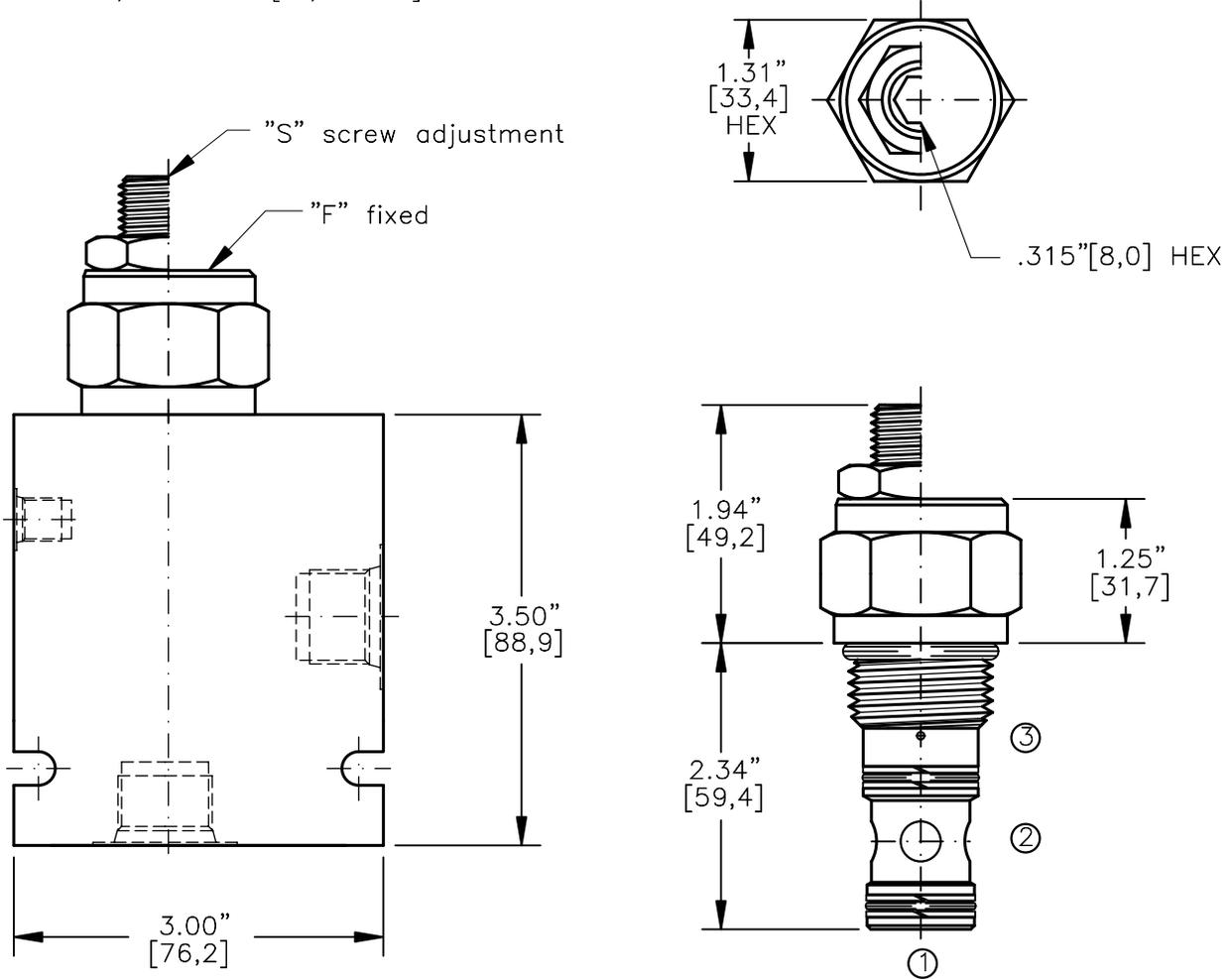
LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO OPEN, SPOOL "C".



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]

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



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-023-1.

LCEF-12-X-C-X-X-XXX

BASIC

SIZE

12 = 1.062"-12 UNF

SEALS

N = BUNA "N"

V = VITON

SPOOL

"C"=SPOOL (VENT TO OPEN)

ADJUSTMENT

F = FIXED (FACTORY SET)

S = ADJUSTING SCREW

C = CAPPED

T = TAMPERPROOF

PRESSURE BIAS SPRING

070 = 70 PSI (FIXED)

100 = 100 PSI (FIXED)

160 = 40-160 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY

04BX = G 1/2" BSPP

06BX = G 3/4" BSPP

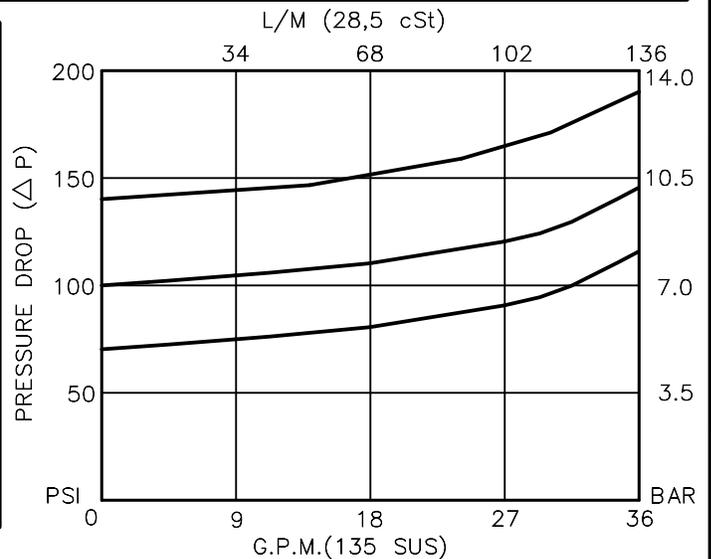
10TX = SAE - #10

12TX = SAE - #12

"A" - ALUM. HOUSING

"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



LOGIC CONTROL ELEMENT

SPOOL TYPE, VENT TO OPEN, SPOOL "C".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve blocks flow from port 1 to port 2 with a spring bias. It will shift to allow full flow from port 1 to port 2 only when there is no pressure in port 3. Valve will close when port 3 is blocked and will maintain the same pressure plus the bias spring force value. When no pressure is present at port 3, it will allow flow from port 1 to port 2 once the bias spring force is overcome by the pressure in port 1. This is vent to open directional logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof and capped adjustments.

All cartridge valves are 100% functionally tested.

LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO OPEN, SPOOL "C".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 36.0 GPM [136 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1227 for buna "N".

SKV-1227 for viton.

WEIGHT: 0.84 lb [.38 kg] cartridge only.

VALVE CAVITY: #C1225, See Page 0-023.0.

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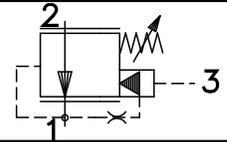
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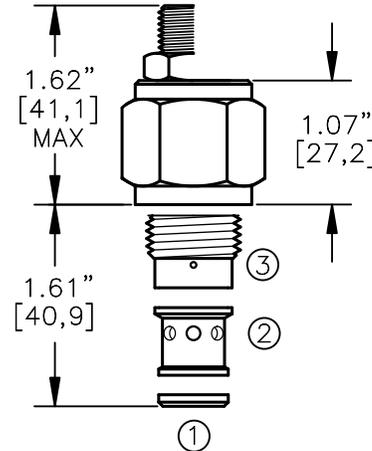
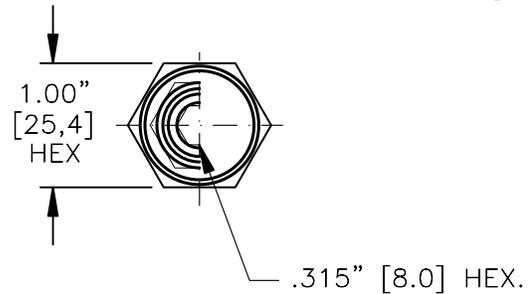
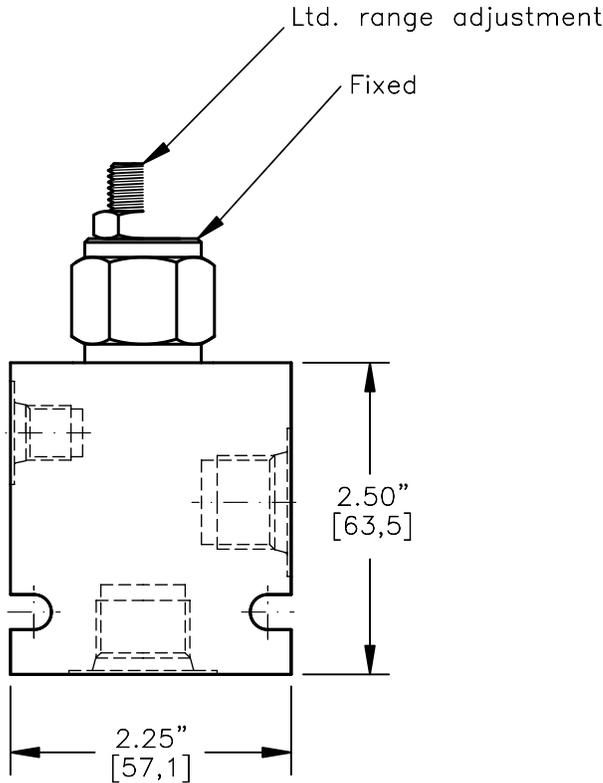
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LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D"



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 0-021.1

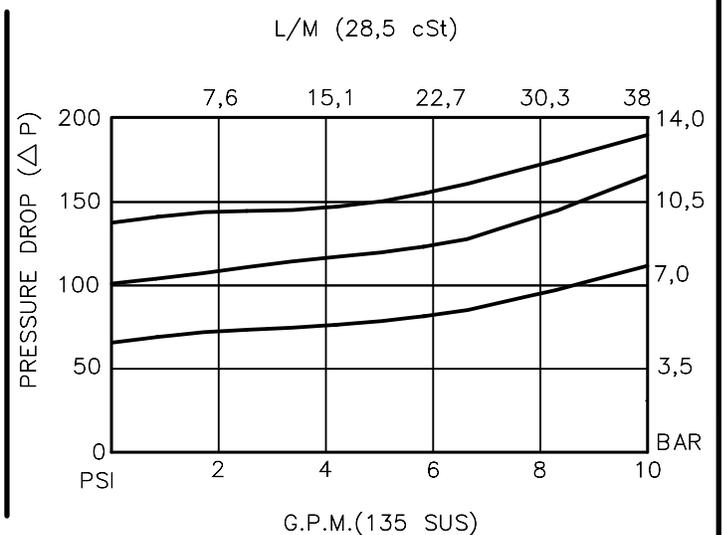
LCEF-08-X-D-X-X-XXX

BASIC —
SIZE —
08 = 3/4"-16 UNF
SEALS —
N = BUNA "N"
V = VITON
SPOOL —
"D"=SPOOL (VENT TO CLOSE)
ADJUSTMENT —
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)

PORTS
0
03BX
08TX
"A" - ALUM. HOUSING
"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



LOGIC CONTROL ELEMENT

SPOOL TYPE, VENT TO CLOSE, SPOOL "D"

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve is normally open from port 2 to port 1 with a spring bias. It will shift to allow full flow from port 2 to port 1 only when there is pressure in port 3. Valve will close when port 3 is opened and will maintain the same pressure plus the bias spring force value. When pressure is present at port 3, it will allow flow from port 2 to port 1, it will close once the pressure and the bias spring force is overcome by pressure in port 1. This is vent to close directional control logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D"**SPECIFICATIONS**

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 10.0 GPM [38 L/M] nominal. See performance chart.
INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
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 restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN-0827 for buna "N".
SKV-0827 for viton.
WEIGHT: 0.28 lb [.13 kg] cartridge only.
VALVE CAVITY: #C0825, See Page 0-021.0.

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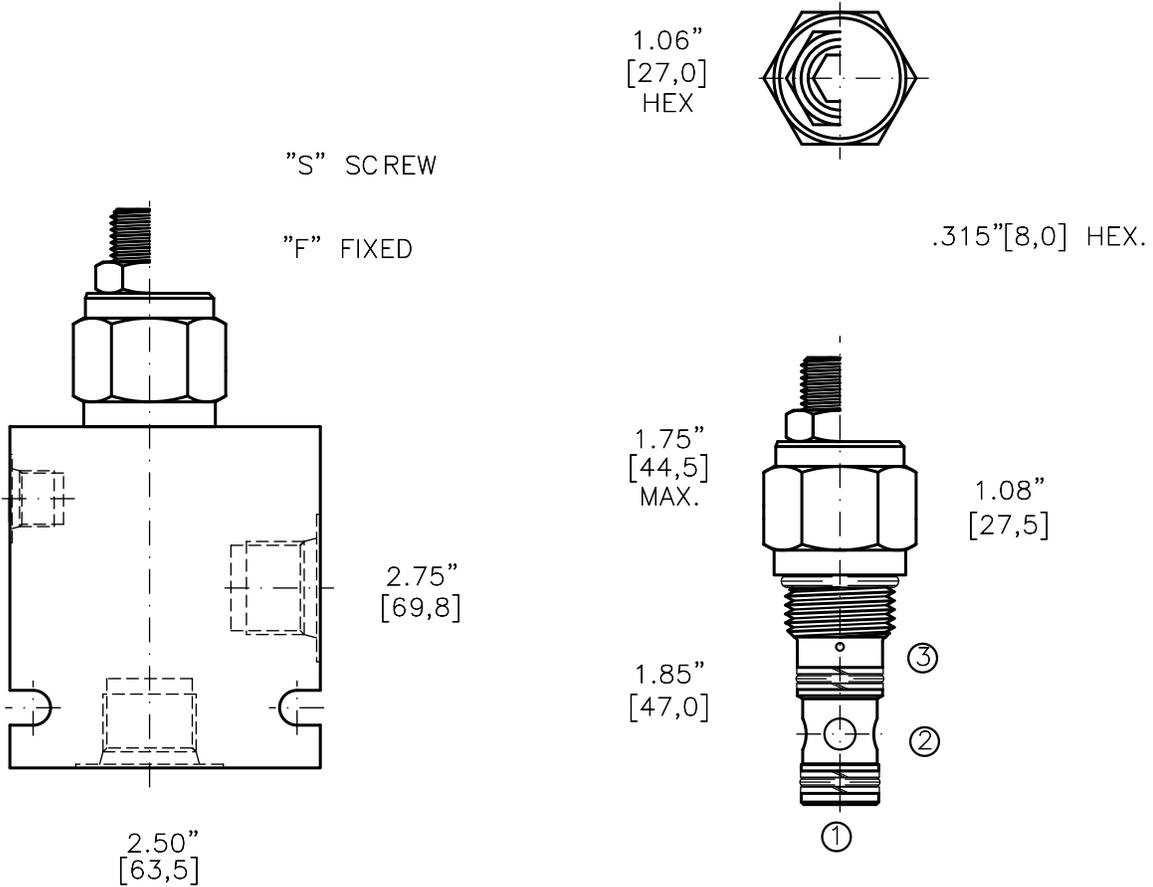
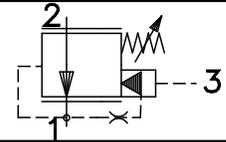
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LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D".



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-022.1

LCEF-10-X-D-X-X-XXX

BASIC —

SIZE —
10 = 7/8"-14 UNF

SEALS —
N = BUNA "N"
V = VITON

SPOOL —
"D" = SPOOL (VENT TO OPEN)

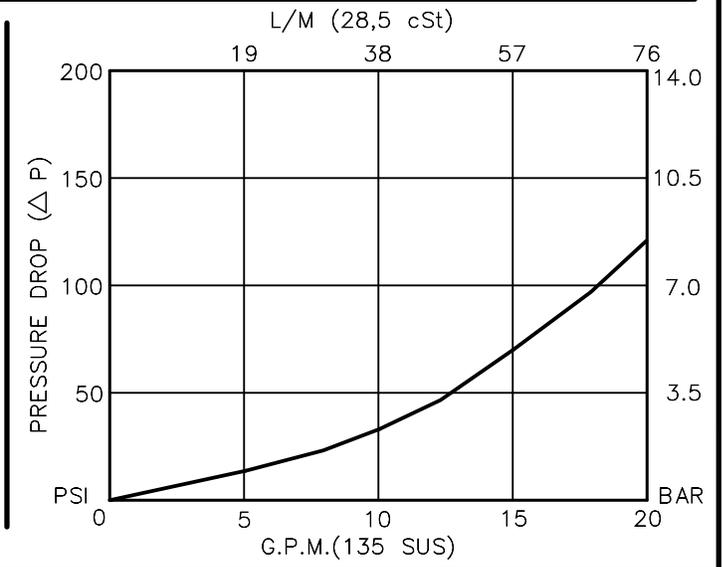
ADJUSTMENT —
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)

PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
04BX = G 1/2" BSPP
08TX = SAE - #8
10TX = SAE - #10

"A" - ALUM. HOUSING
"S" - STEEL HOUSING



LOGIC CONTROL ELEMENT

SPOOL TYPE, VENT TO CLOSE, SPOOL "D".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve is normally open from port 2 to port 1 with a spring bias. It will shift to allow full flow from port 2 to port 1 only when there is pressure in port 3. Valve will close when port 3 is opened and will maintain the same pressure plus the bias spring force value. When pressure is present at port 3, it will allow flow from port 2 to port 1, it will close once the pressure and the bias spring force is overcome by pressure in port 1. This is vent to close directional control logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 20.0 GPM [76 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1027 for buna "N".
SKV-1027 for viton.

WEIGHT: 0.46 lb [.21 kg] cartridge only.

VALVE CAVITY: #C1025, See Page 0-022.0.

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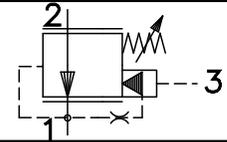
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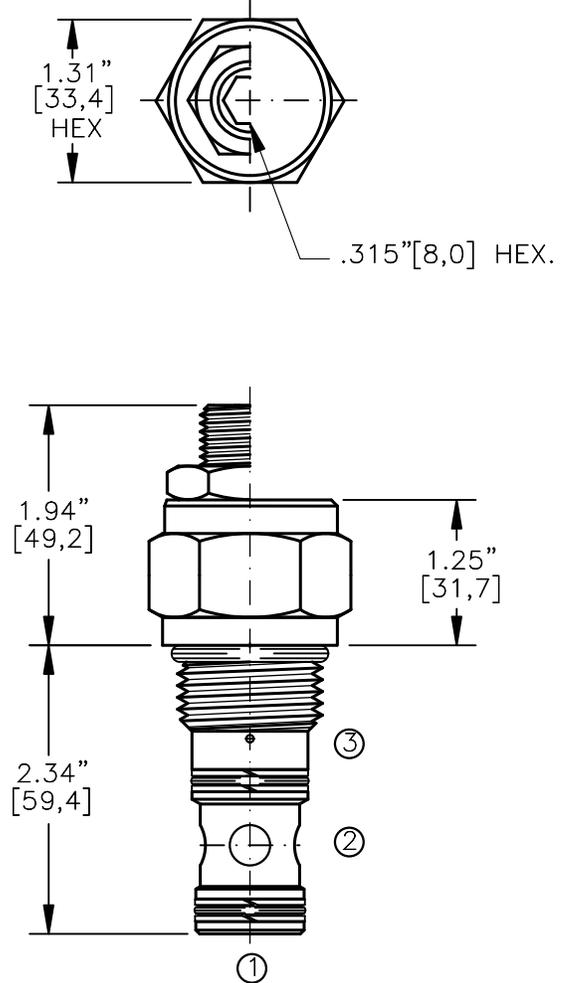
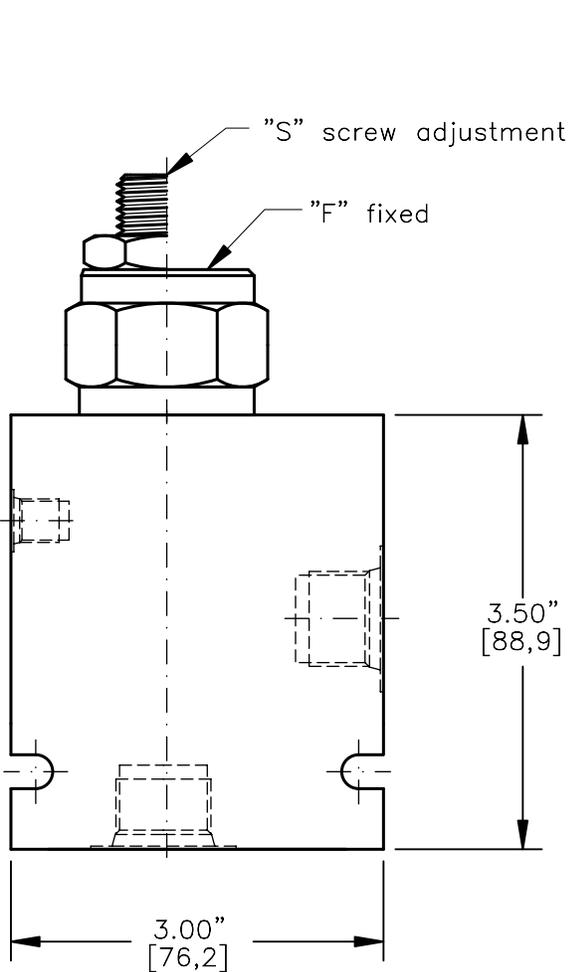
LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D".



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]

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



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-023-1.

LCEF-12-X-D-X-X-XXX

BASIC

SIZE

12 = 1.062"-12 UNF

SEALS

N = BUNA "N"

V = VITON

SPOOL

"D"=SPOOL (VENT TO OPEN)

ADJUSTMENT

F = FIXED (FACTORY SET)

S = ADJUSTING SCREW

C = CAPPED

T = TAMPERPROOF

PRESSURE BIAS SPRING

070 = 70 PSI (FIXED)

100 = 100 PSI (FIXED)

160 = 40-160 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY

04BX = G 1/2" BSPP

06BX = G 3/4" BSPP

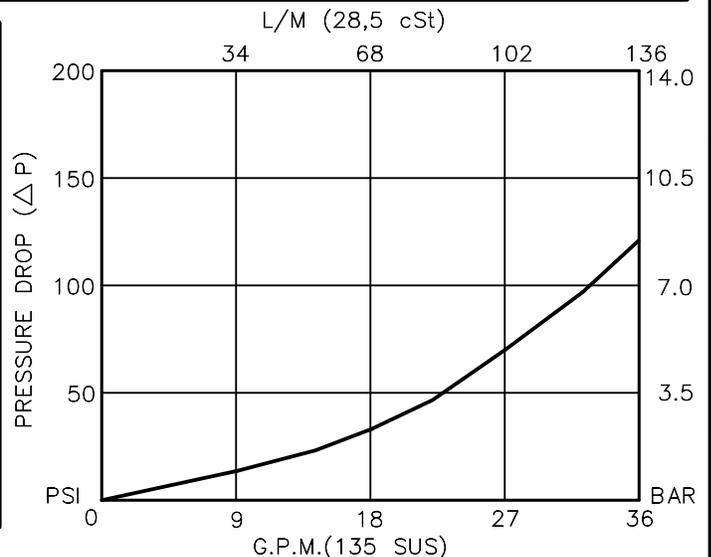
10TX = SAE - #10

12TX = SAE - #12

"A" - ALUM. HOUSING

"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



LOGIC CONTROL ELEMENT

SPOOL TYPE, VENT TO CLOSE, SPOOL "D".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve is normally open from port 2 to port 1 with a spring bias. It will shift to allow full flow from port 2 to port 1 only when there is pressure in port 3. Valve will close when port 3 is opened and will maintain the same pressure plus the bias spring force value. When pressure is present at port 3, it will allow flow from port 2 to port 1, it will close once the pressure and the bias spring force is overcome by pressure in port 1. This is vent to close directional control logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof and capped adjustments.

All cartridge valves are 100% functionally tested.

LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 36.0 GPM [136 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1227 for Buna "N".

SKV-1227 for Viton.

WEIGHT: 0.84 lb [.38 kg] cartridge only.

VALVE CAVITY: #C1225, See Page 0-023.0.

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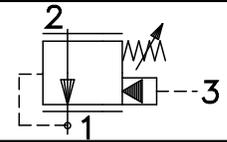
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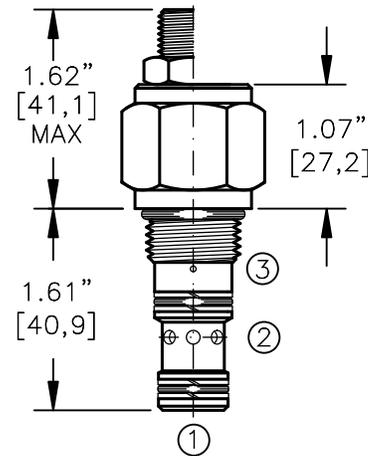
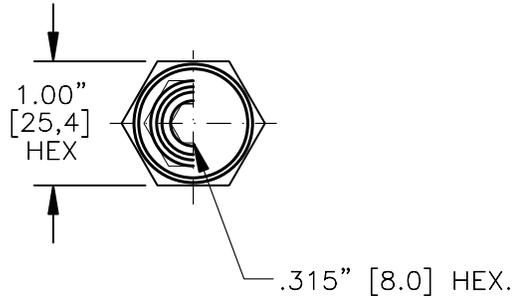
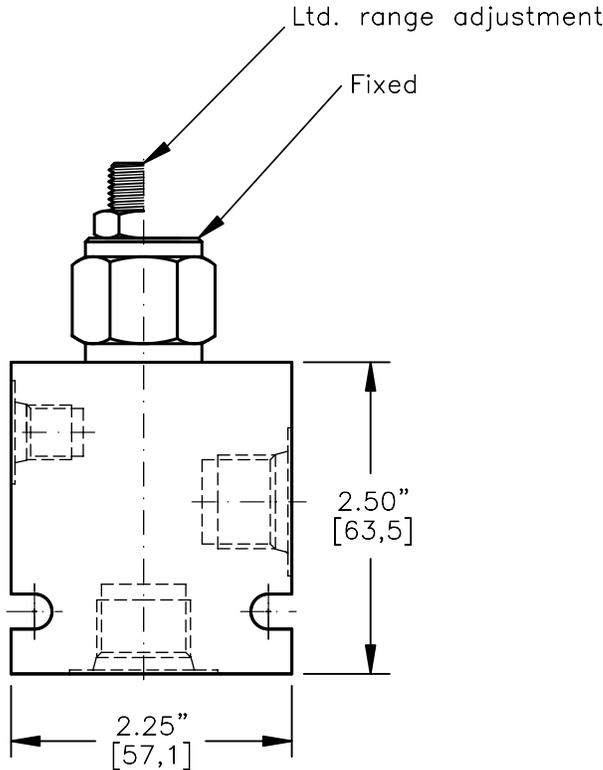
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LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F"



TORQUE:

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

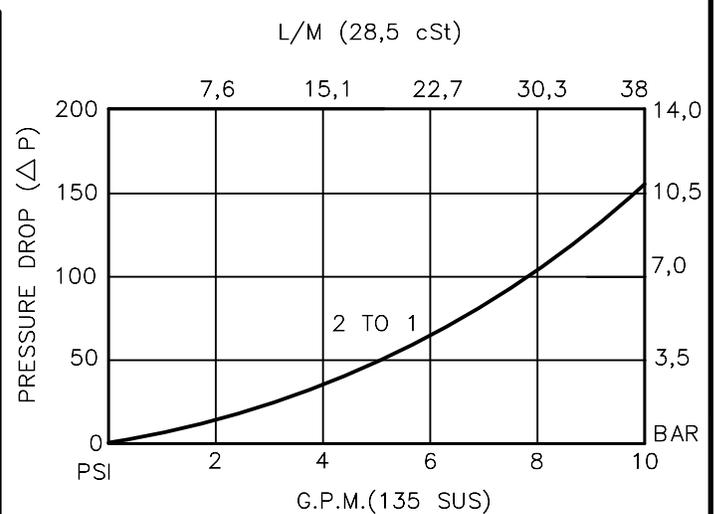


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-021.1

LCEF-08-X-F-X-X-XXX

- BASIC
- SIZE
08 = 3/4"-16 UNF
- SEALS
N = BUNA "N"
V = VITON
- SPOOL
"F"=SPOOL (PILOT TO OPEN)
- ADJUSTMENT
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB
- FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

- PRESSURE BIAS SPRING
070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)
- PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
08TX = SAE - #8
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING



LOGIC CONTROL ELEMENT

SPOOL TYPE, PILOT TO OPEN, SPOOL "F"

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve is normally open from port 2 to port 1 with a spring bias. It will shift to allow full flow from port 2 to port 1 only when there is pressure in port 3. Valve will close when port 3 is opened and will maintain the same pressure plus the bias spring force value. When pressure is present at port 3, it will allow flow from port 2 to port 1, it will close once the pressure and the bias spring force is overcome by pressure in port 1. This is pilot to open directional control logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F"

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 10.0 GPM [38 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

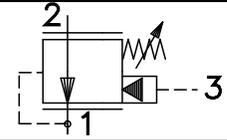
SEAL KIT NUMBER: SKN-0827 for buna "N".

SKV-0827 for viton.

WEIGHT: 0.28 lb [.13 kg] cartridge only.

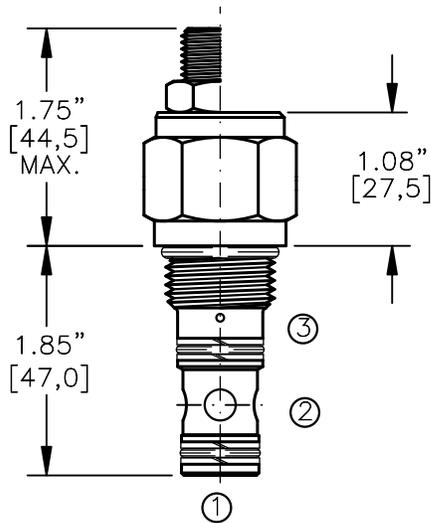
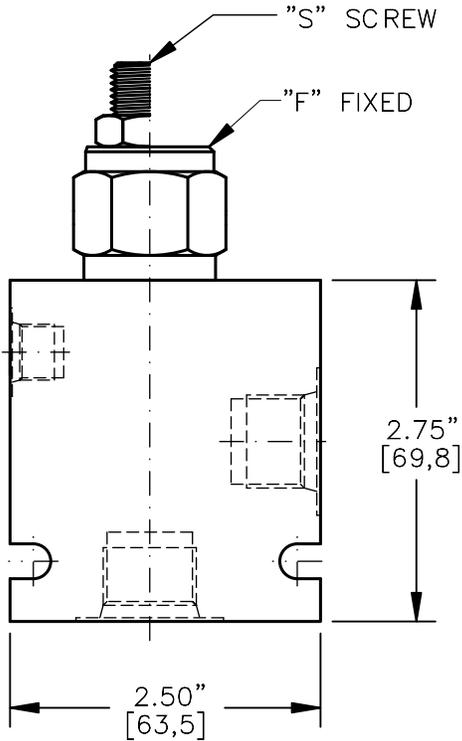
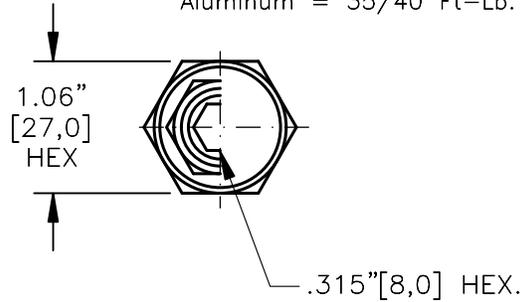
VALVE CAVITY: #C0825, See Page 0-021.0.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F".



TORQUE:

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



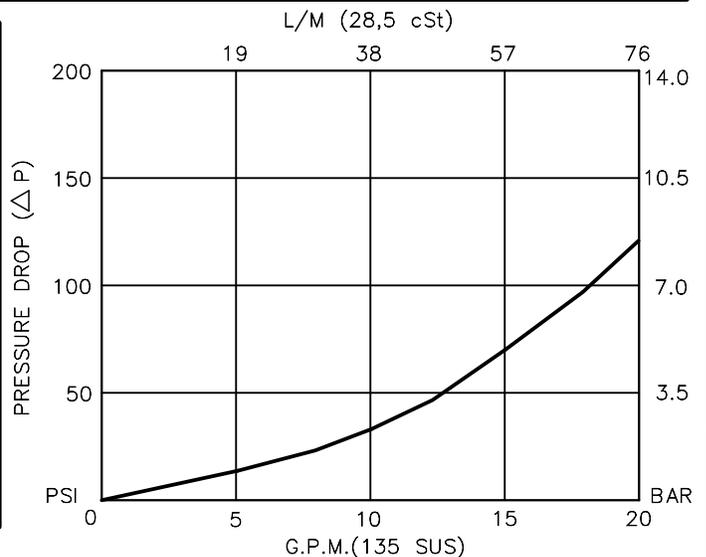
FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-022.1

LCEF-10-X-F-X-X-XXX

- BASIC
- SIZE
- 10 = 7/8"-14 UNF
- SEALS
- N = BUNA "N"
- V = VITON
- SPOOL
- "F" = SPOOL (PILOT TO OPEN)
- ADJUSTMENT
- F = FIXED (FACTORY SET)
- S = ADJUSTING SCREW
- C = CAPPED
- T = TAMPERPROOF
- K = HANDKNOB
- M = METAL HANDKNOB

- PRESSURE BIAS SPRING
- 070 = 70 PSI (FIXED)
- 100 = 100 PSI (FIXED)
- 160 = 40-160 PSI (ADJ)
- PORTS
- 0 = CARTRIDGE ONLY
- 03BX = G 3/8" BSPP
- 04BX = G 1/2" BSPP
- 08TX = SAE - #8
- 10TX = SAE - #10
- "A" - ALUM. HOUSING
- "S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve is normally open from port 2 to port 1 with a spring bias. It will shift to allow full flow from port 2 to port 1 only when there is pressure in port 3. Valve will close when port 3 is opened and will maintain the same pressure plus the bias spring force value. When pressure is present at port 3, it will allow flow from port 2 to port 1, it will close once the pressure and the bias spring force is overcome by pressure in port 1. This is pilot to open directional control logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 20.0 GPM [76 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1027 for buna "N".

SKV-1027 for viton.

WEIGHT: 0.46 lb [.21 kg] cartridge only.

VALVE CAVITY: #C1025, See Page 0-022.0.

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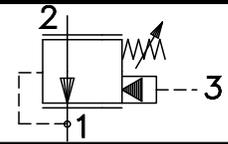
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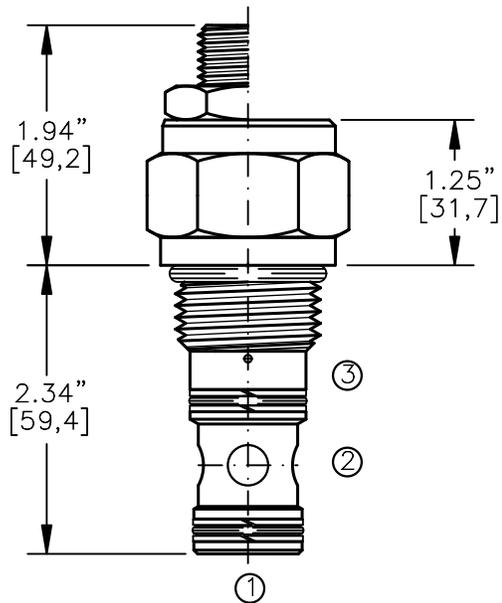
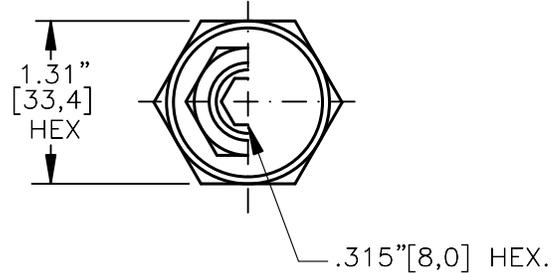
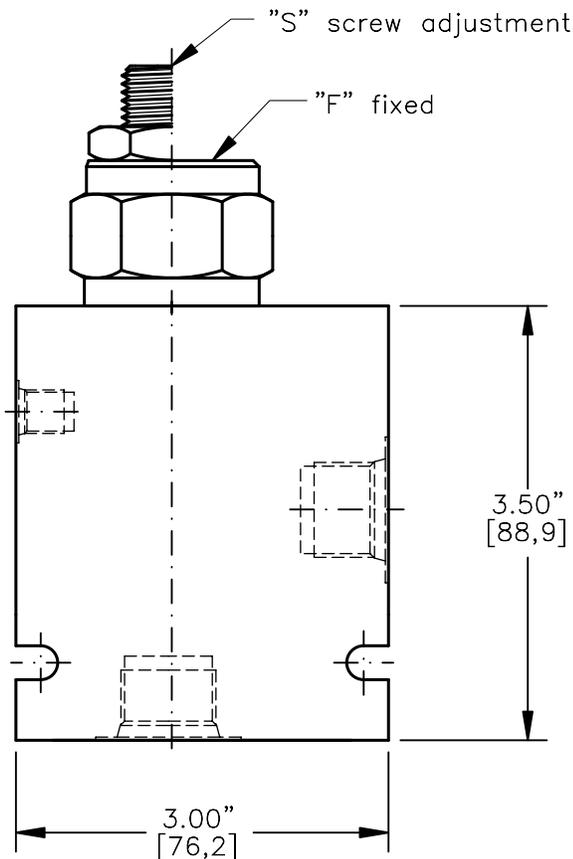
LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F".



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]

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



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-023-1.

LCEF-12-X-F-X-X-XXX

BASIC

SIZE

12 = 1.062"-12 UNF

SEALS

N = BUNA "N"

V = VITON

SPOOL

"F"=SPOOL (PILOT TO OPEN)

ADJUSTMENT

F = FIXED (FACTORY SET)

S = ADJUSTING SCREW

C = CAPPED

T = TAMPERPROOF

PRESSURE BIAS SPRING

070 = 70 PSI (FIXED)

100 = 100 PSI (FIXED)

160 = 40-160 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY

04BX = G 1/2" BSPP

06BX = G 3/4" BSPP

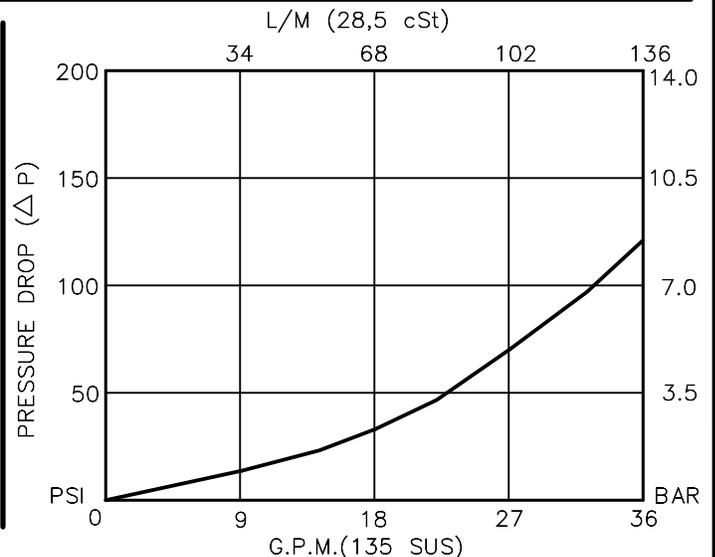
10TX = SAE - #10

12TX = SAE - #12

"A" - ALUM. HOUSING

"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F".

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, HYDRAULIC DIRECTIONAL LOGIC ELEMENT, with multi-functional potential when used with other directional, pressure or flow control devices.

OPERATIONS

This valve is normally open from port 2 to port 1 with a spring bias. It will shift to allow full flow from port 2 to port 1 only when there is pressure in port 3. Valve will close when port 3 is opened and will maintain the same pressure plus the bias spring force value. When pressure is present at port 3, it will allow flow from port 2 to port 1, it will close once the pressure and the bias spring force is overcome by pressure in port 1. This is pilot to open directional control logic element.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof and capped adjustments.

All cartridge valves are 100% functionally tested.

LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO OPEN, SPOOL "F".

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 36.0 GPM [136 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m] @ 85% of crack pressure.

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1227 for buna "N".

SKV-1227 for viton.

WEIGHT: 0.84 lb [.38 kg] cartridge only.

VALVE CAVITY: #C1225, See Page 0-023.0.

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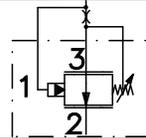
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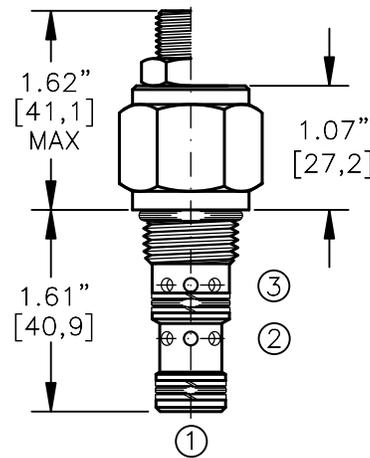
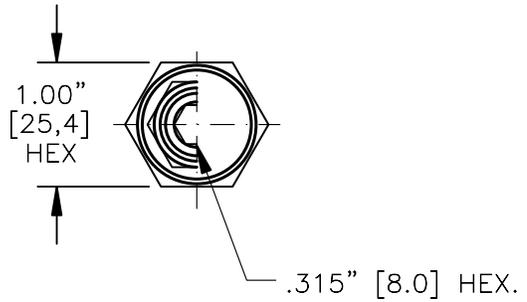
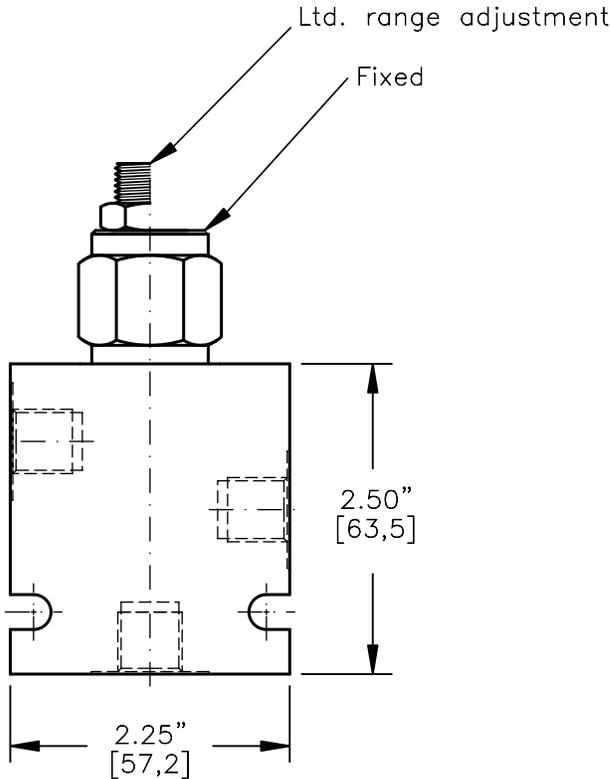
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**PRESSURE COMPENSATOR
SPOOL TYPE, INLINE-TYPE COMPENSATOR**



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 0-031.1

PCEI-08-N-F-0-XXX

BASIC
SIZE
08 = 3/4"-16 UNF

SEALS
N = BUNA "N"
V = VITON

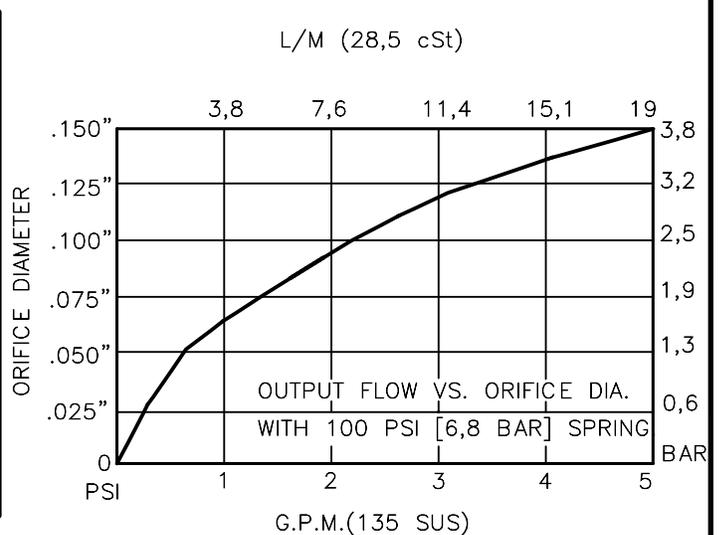
ADJUSTMENT
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSP
06TX = SAE - #6

PRESSURE BIAS SPRING
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)

"A" - ALUM. HOUSING
"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



PRESSURE COMPENSATOR SPOOL TYPE, INLINE-TYPE COMPENSATING

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE-COMPENSATING INLINE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a two-port (inline-type), pressure-compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 2 regardless of load pressure changes in a circuit downstream of port 2.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 2 thereby regulating the hydraulic flow rate between the two points in the circuit. This is an inline type regulator, delivering only the exact amount of pump flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

PRESSURE COMPENSATOR
SPOOL TYPE, INLINE-TYPE COMPENSATING

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: "F" 4.0 GPM [15 L/M] nominal. See performance chart.

FLOW: "S" 6.0 GPM [23 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

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: Use undercut in cavity (port 3 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-0832 for buna "N".

SKV-0832 for viton.

WEIGHT: 0.30 lb [.14 kg] cartridge only.

VALVE CAVITY: #C0830, See Page 0-031.0.

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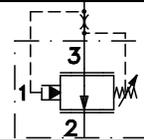
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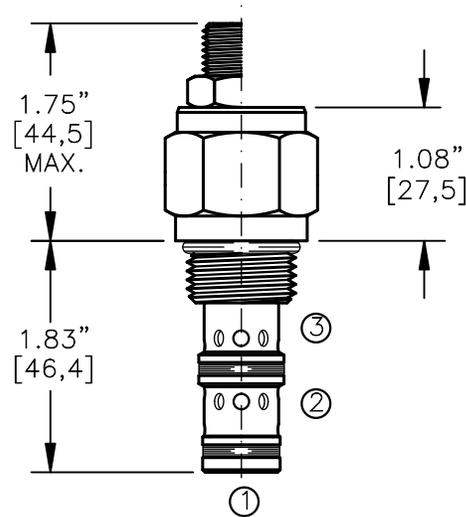
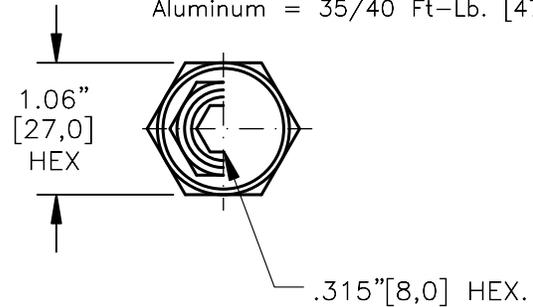
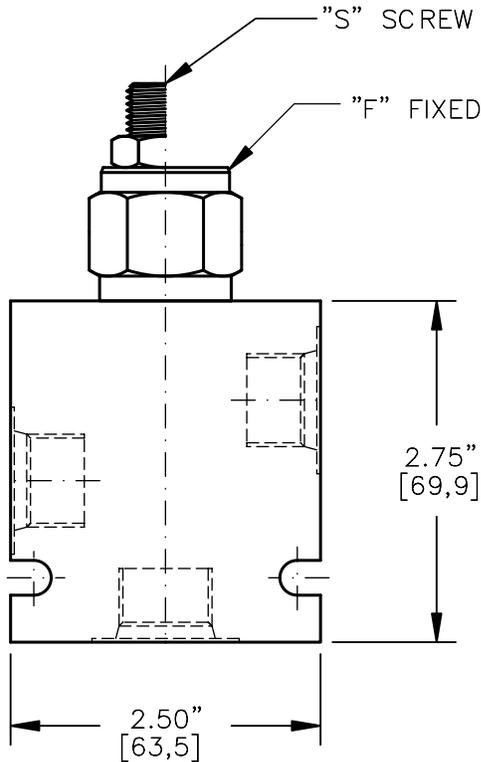
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PRESSURE COMPENSATOR
SPOOL TYPE, INLINE-TYPE COMPENSATOR



TORQUE:

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



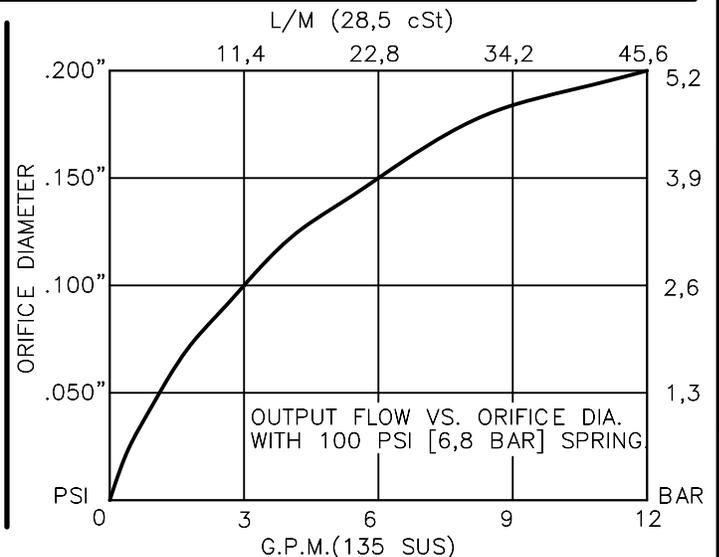
FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-032.1

PCEI-10-X-X-X-XXX

- BASIC SIZE**
10 = 7/8"-14 UNF
- SEALS**
N = BUNA "N"
V = VITON
- ADJUSTMENT**
F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

- PRESSURE BIAS SPRING**
075 = 75 PSI (FIXED)
100 = 100 PSI (FIXED)
080 = 40-80 PSI (ADJ.)
120 = 40-120 PSI (ADJ.)
160 = 40-160 PSI (ADJ.)
- PORTS**
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



**PRESSURE COMPENSATOR SPOOL TYPE, INLINE–TYPE,
PRESSURE COMPENSATING ELEMENT.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE–COMPENSATING INLINE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a two–port (inline–type), pressure–compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 2 regardless of load pressure changes in a circuit downstream of port 2.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 2 thereby regulating the hydraulic flow rate between the two points in the circuit. This is an inline type regulator, delivering only the exact amount of pump flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

PRESSURE COMPENSATOR SPOOL TYPE, INLINE-TYPE,
PRESSURE COMPENSATING ELEMENT.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 10.0 GPM [38 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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: Use undercut in cavity (port 3 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1032 for buna "N".

SKV-1032 for viton.

WEIGHT: 0.42 lb [.19 kg] cartridge only.

VALVE CAVITY: #C1030, See Page 0-032.0.

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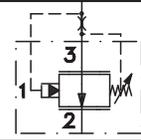
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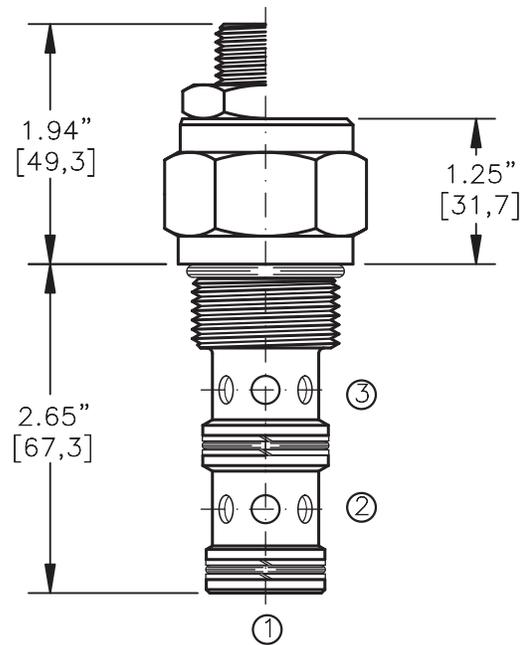
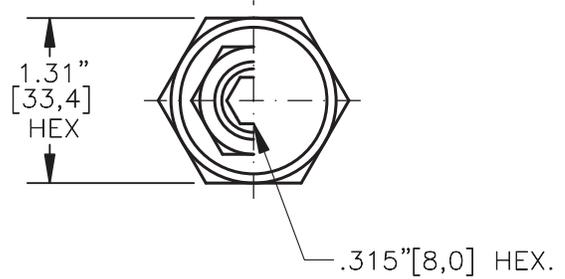
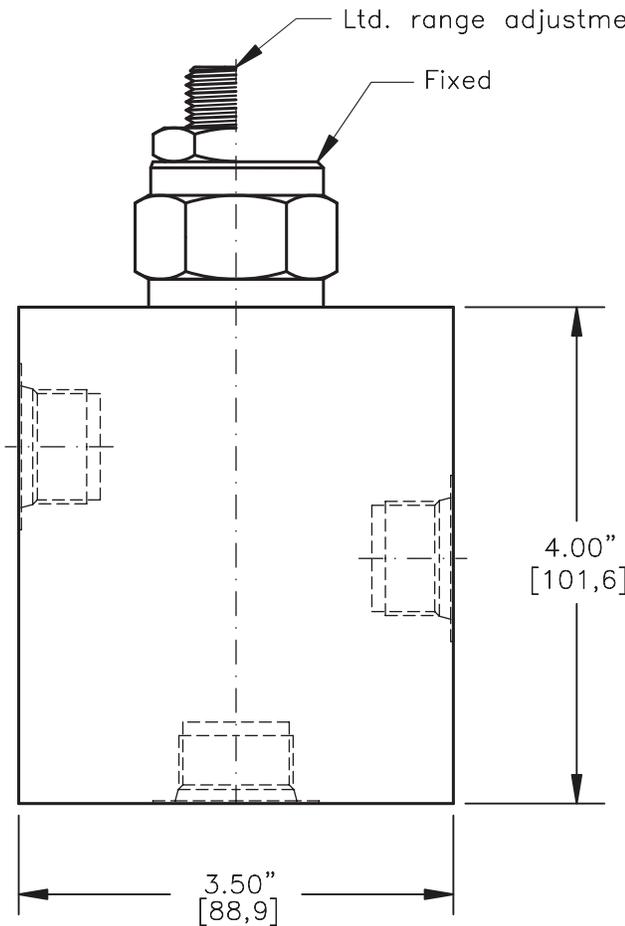
**PRESSURE COMPENSATOR
SPOOL TYPE, INLINE-TYPE COMPENSATOR**



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]

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



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-033.1

PCEI-12-X-X-X-XXX

BASIC

SIZE

12 = 1.062"-12 UNF

SEALS

N = BUNA "N"

V = VITON

ADJUSTMENT

F = FIXED (FACTORY SET)

S = ADJUSTING SCREW

C = CAPPED

T = TAMPERPROOF

PRESSURE BIAS SPRING

075 = 75 PSI (FIXED)

100 = 100 PSI (FIXED)

160 = 40-160 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY

04BX = G 1/2" BSPP

06BX = G 3/4" BSPP

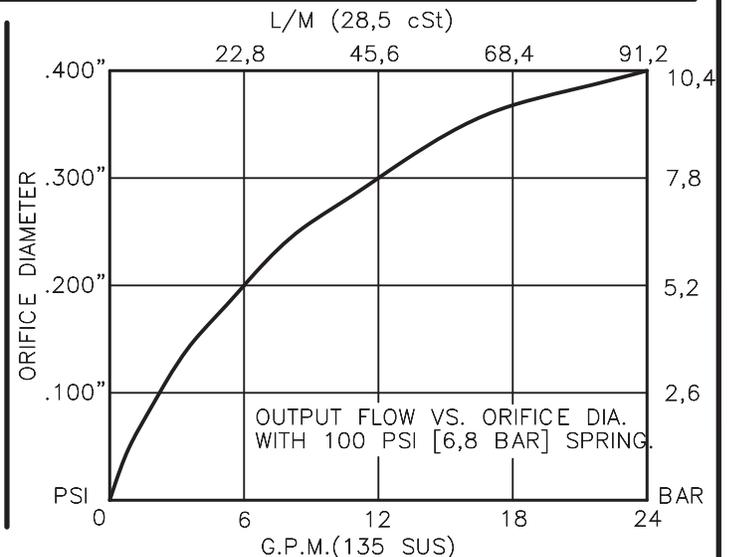
10TX = SAE - #10

12TX = SAE - #12

"A" - ALUM. HOUSING

"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



**PRESSURE COMPENSATOR SPOOL TYPE, INLINE,
PRESSURE COMPENSATING ELEMENT.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE-COMPENSATING INLINE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a two-port (inline-type), pressure-compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 2 regardless of load pressure changes in a circuit downstream of port 2.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 2 thereby regulating the hydraulic flow rate between the two points in the circuit. This is an inline type regulator, delivering only the exact amount of pump flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

PRESSURE COMPENSATOR SPOOL TYPE, INLINE,
PRESSURE COMPENSATING ELEMENT.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 24.0 GPM [90.7 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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: Use undercut in cavity (port 3 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1232 for buna "N".

SKV-1232 for viton.

WEIGHT: 0.86 lb [.39 kg] cartridge only.

VALVE CAVITY: #C1230, See Page 0-032.0.

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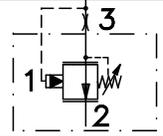
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PRESSURE COMPENSATOR
SPOOL TYPE, INLINE-TYPE COMPENSATOR

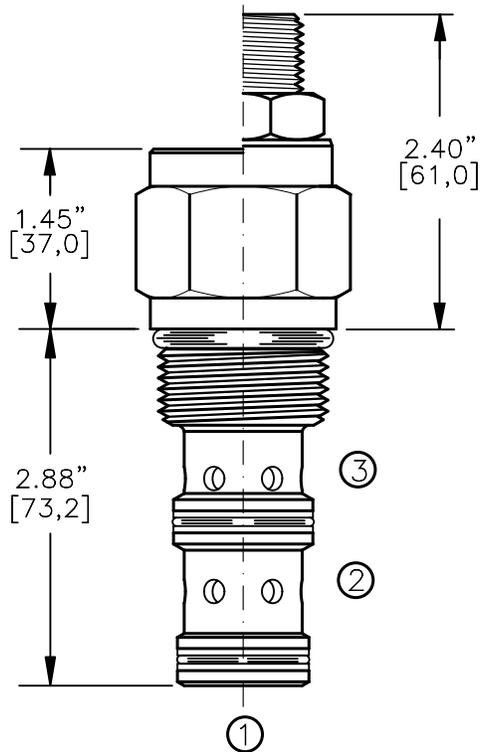
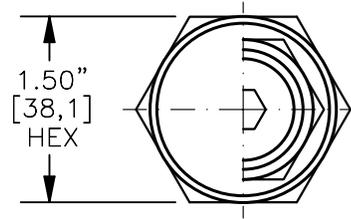
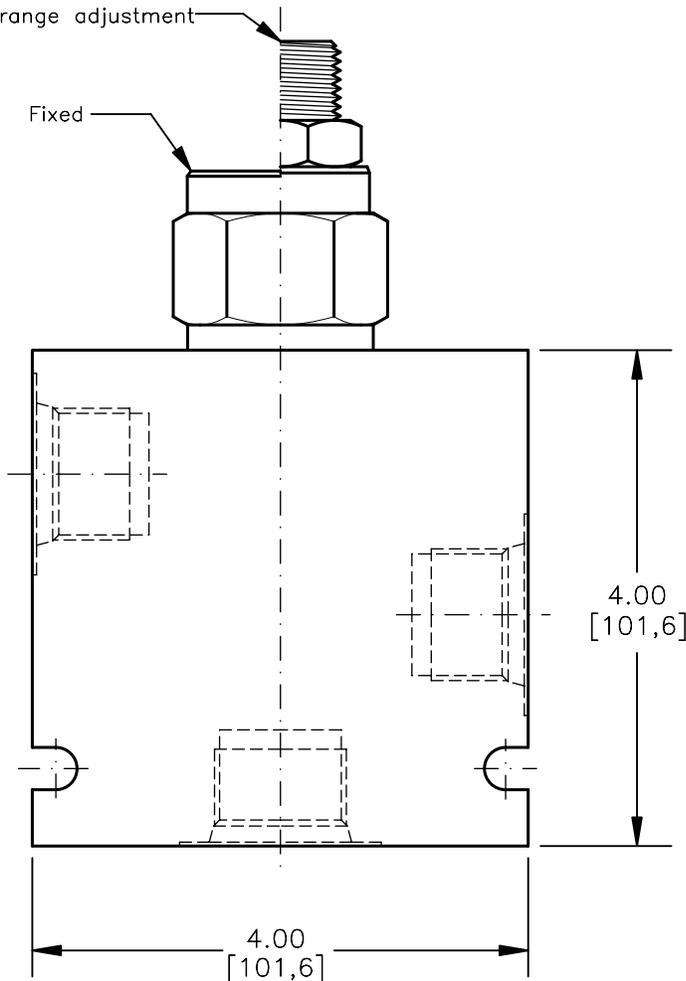


TORQUE:

Steel = 95/100 Ft-Lb. [129/136 Nm]
Aluminum = 70/75 Ft-Lb. [95/102 Nm]

Ltd. range adjustment

Fixed



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-034.1

PCEI-16-X-X-X-XXX

BASIC

SIZE

16 = 1.312"-12 UNF

SEALS

N = BUNA "N"

V = VITON

ADJUSTMENT

F = FIXED (FACTORY SET)

S = ADJUSTING SCREW

C = CAPPED

T = TAMPERPROOF

PRESSURE BIAS SPRING

100 = 100 PSI (FIXED)

180 = 60-180 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY

06BX = G 3/4" BSPP

08BX = G 1" BSPP

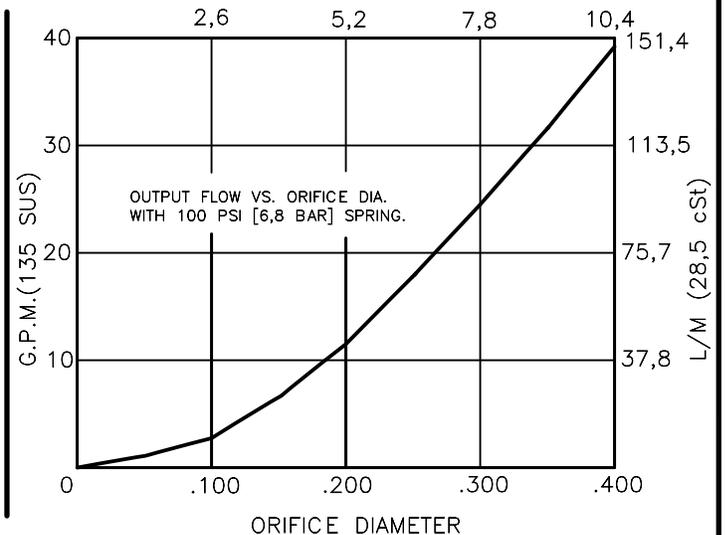
12TX = SAE - #12

16TX = SAE - #16

"A" - ALUM. HOUSING

"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



PRESSURE COMPENSATOR SPOOL TYPE, INLINE-TYPE, PRESSURE COMPENSATING ELEMENT.

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE-COMPENSATING INLINE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a two-port (inline-type), pressure-compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 2 regardless of load pressure changes in a circuit downstream of port 2.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 2 thereby regulating the hydraulic flow rate between the two points in the circuit. This is an inline type regulator, delivering only the exact amount of pump flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

PRESSURE COMPENSATOR SPOOL TYPE,
INLINE-TYPE, PRESSURE COMPENSATING ELEMENT.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

FLOW: 36.0 GPM [136 L/M] nominal. See performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

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: Use undercut in cavity (port 3 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

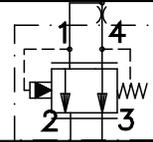
SEAL KIT NUMBER: SKN-1632 for buna "N".

SKV-1632 for viton.

WEIGHT: 1.5 lb [.68 kg] cartridge only.

VALVE CAVITY: #C1630, See Page 0-032.0.

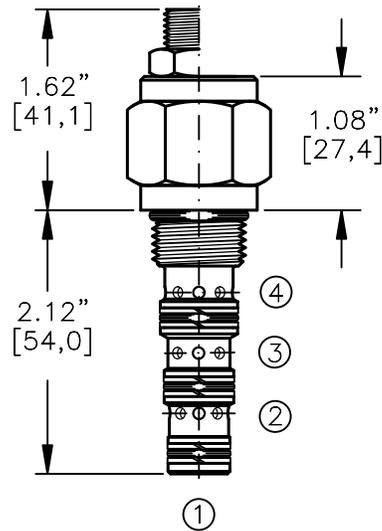
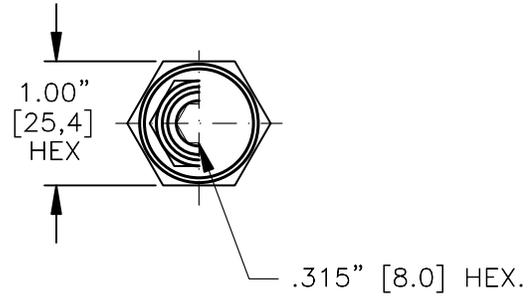
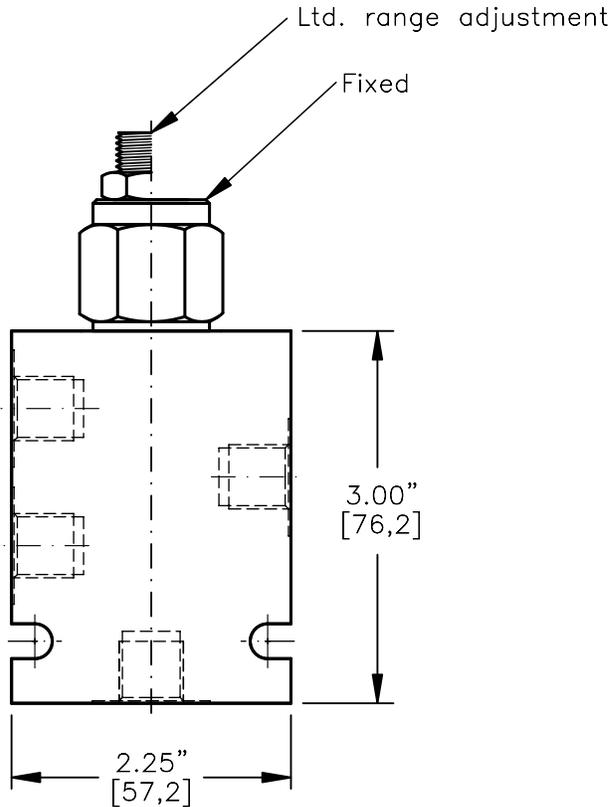
PRESSURE COMPENSATOR
SPOOL TYPE, PRIORITY-TYPE COMPENSATOR



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

PCEB-08-X-X-X-XXX

BASIC

SIZE
08 = 3/4"-16 UNF

SEALS

N = BUNA "N"
V = VITON

ADJUSTMENT

F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

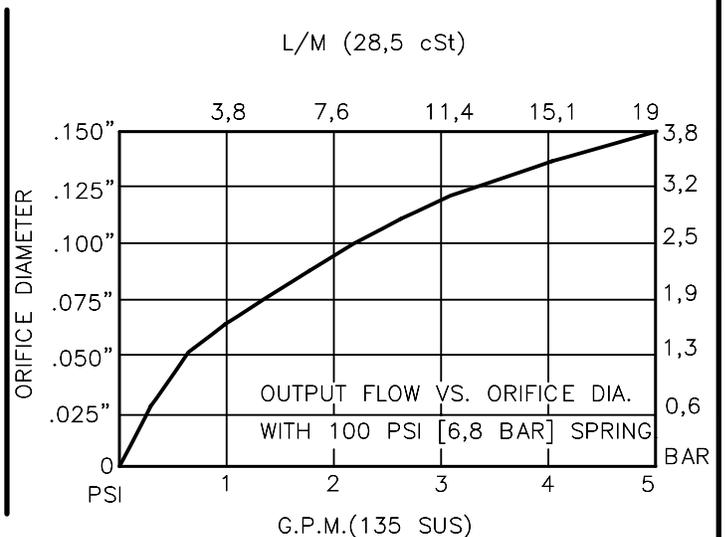
FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

PRESSURE BIAS SPRING

070 = 70 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ.)

PORTS

0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
06TX = SAE - #6



PRESSURE COMPENSATOR

SPOOL TYPE, PRIORITY-TYPE COMPENSATING

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE-COMPENSATING PRIORITY TYPE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a three-port (bypass-type), pressure-compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 3 regardless of load pressure changes in a circuit downstream of port 3.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 3 thereby regulating the hydraulic flow rate between the two points in the circuit. This is a priority type regulator, delivering pump flow first to port 3 , then by-passing excess flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

PRESSURE COMPENSATOR
SPOOL TYPE, PRIORITY-TYPE COMPENSATING

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

INLET FLOW: 8.0 GPM [30 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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: Use undercut in cavity (port 4 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-0842 for buna "N".

SKV-0842 for viton.

WEIGHT: 0.26 lb [.12 kg] cartridge only.

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

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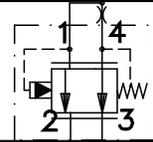
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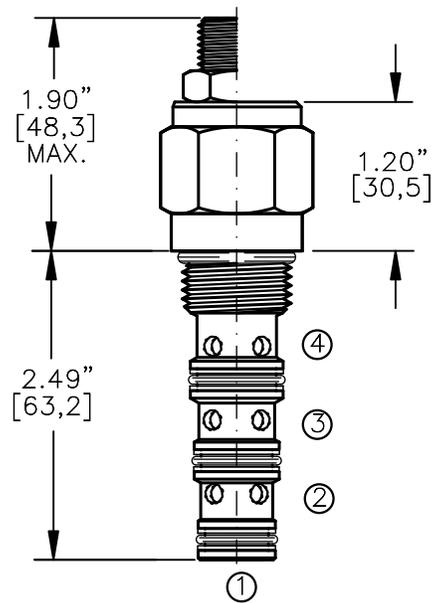
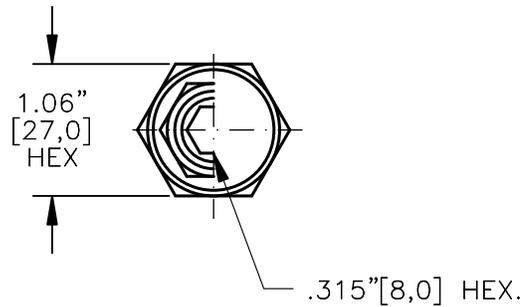
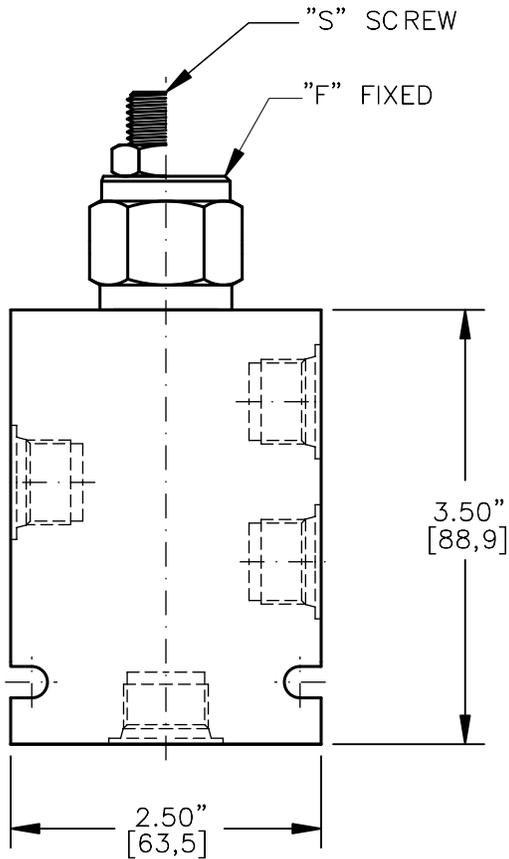
PRESSURE COMPENSATOR
SPOOL TYPE, PRIORITY-TYPE COMPENSATOR



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

PCEB-10-X-X-X-XXX

BASIC

SIZE
10 = 7/8"-14 UNF

SEALS

N = BUNA "N"
V = VITON

ADJUSTMENT

F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

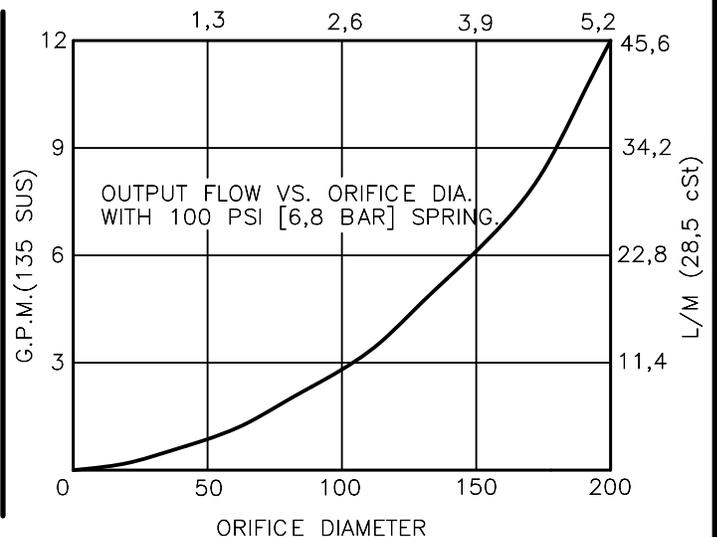
FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

PRESSURE BIAS SPRING

075 = 75 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8
"A" - ALUM. HOUSING
"S" - STEEL HOUSING



**PRESSURE COMPENSATOR SPOOL TYPE,
PRIORITY–TYPE, PRESSURE COMPENSATING ELEMENT.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE–COMPENSATING PRIORITY TYPE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a three–port (bypass–type), pressure–compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 3 regardless of load pressure changes in a circuit downstream of port 3.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 3 thereby regulating the hydraulic flow rate between the two points in the circuit. This is a priority type regulator, delivering pump flow first to port 3 , then by–passing excess flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof, capped and handknob adjustments.

All cartridge valves are 100% functionally tested.

Industry common cavity.

**PRESSURE COMPENSATOR SPOOL TYPE,
PRIORITY–TYPE, PRESSURE COMPENSATING ELEMENT.**

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

INLET FLOW: 18.0 GPM [68 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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: Use undercut in cavity (port 4 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN–1042 for buna "N".

SKV–1042 for Viton.

WEIGHT: 0.46 lb [.21 kg] cartridge only.

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

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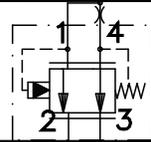
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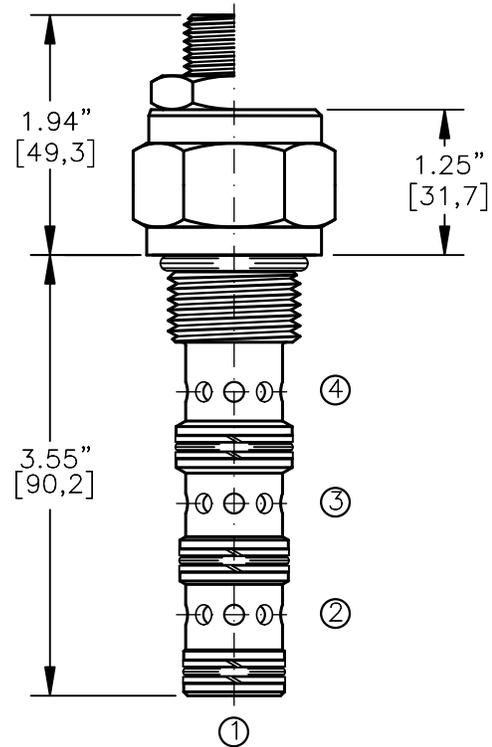
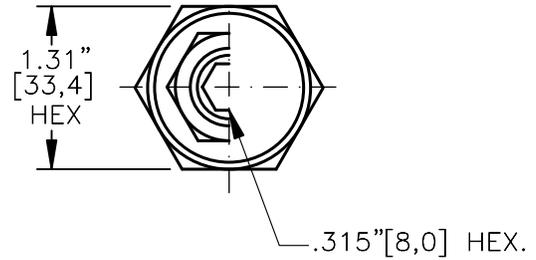
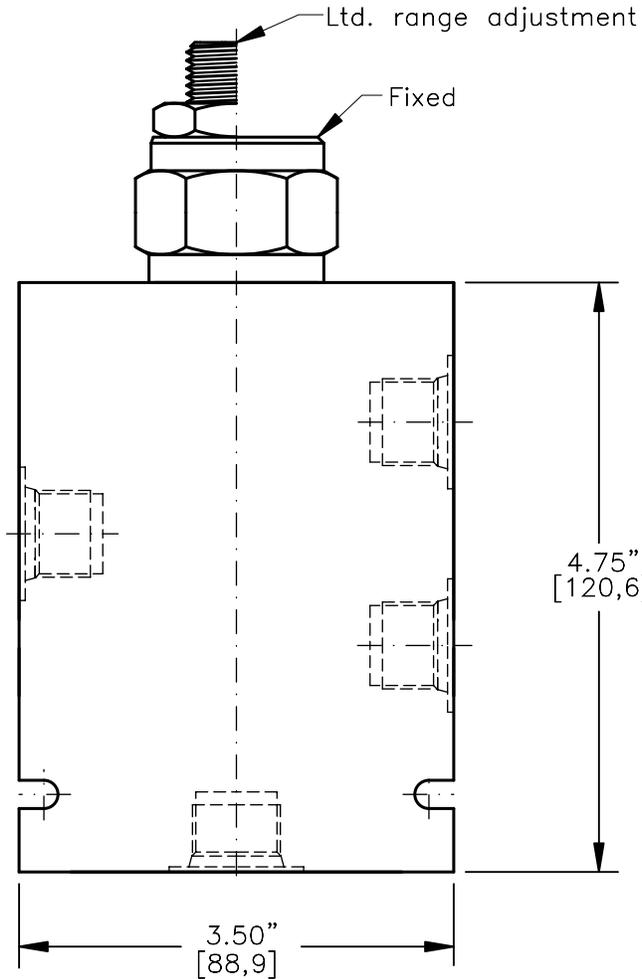
PRESSURE COMPENSATOR
SPOOL TYPE, PRIORITY-TYPE COMPENSATOR



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]

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



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-043.1

PCEB-12-X-X-X-XXX

BASIC

SIZE

12 = 1.062"-12 UNF

SEALS

N = BUNA "N"
V = VITON

ADJUSTMENT

F = FIXED (FACTORY SET)
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF

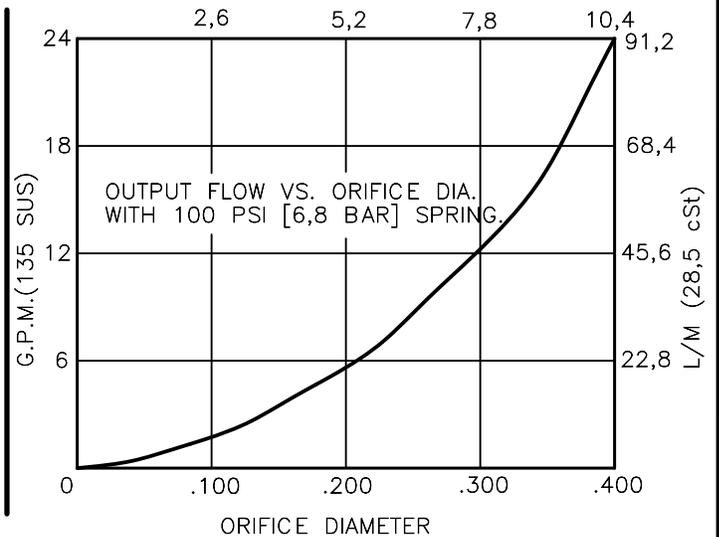
PRESSURE BIAS SPRING

075 = 75 PSI (FIXED)
100 = 100 PSI (FIXED)
160 = 40-160 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY
04BX = G 1/2" BSPP
06BX = G 3/4" BSPP
10TX = SAE - #10
12TX = SAE - #12
"A" - ALUM. HOUSING
"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



**PRESSURE COMPENSATOR SPOOL TYPE,
PRIORITY-TYPE, PRESSURE COMPENSATING ELEMENT.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE-COMPENSATING PRIORITY TYPE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a three-port (bypass-type), pressure-compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 3 regardless of load pressure changes in a circuit downstream of port 3.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 3 thereby regulating the hydraulic flow rate between the two points in the circuit. This is a priority type regulator, delivering pump flow first to port 3 , then by-passing excess flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof and capped adjustments.

All cartridge valves are 100% functionally tested.

PRESSURE COMPENSATOR SPOOL TYPE,
PRIORITY-TYPE, PRESSURE COMPENSATING ELEMENT.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

INLET FLOW: 32.0 GPM [120 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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: Use undercut in cavity (port 4 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1242 for buna "N".
SKV-1242 for viton.

WEIGHT: 0.92 lb [.42 kg] cartridge only.

VALVE CAVITY: #C1240, See Page 0-043.0.

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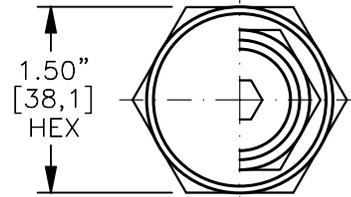
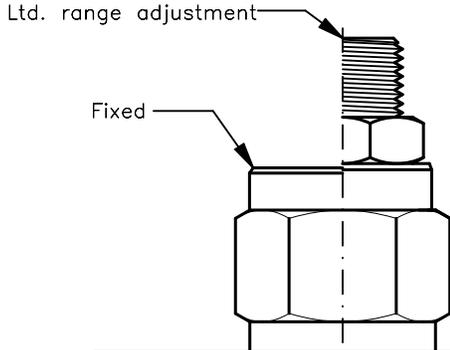
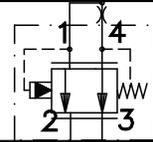
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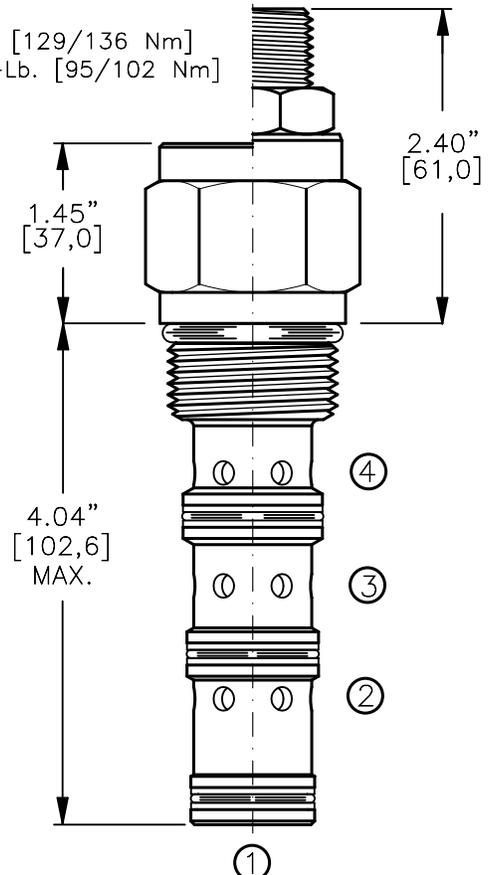
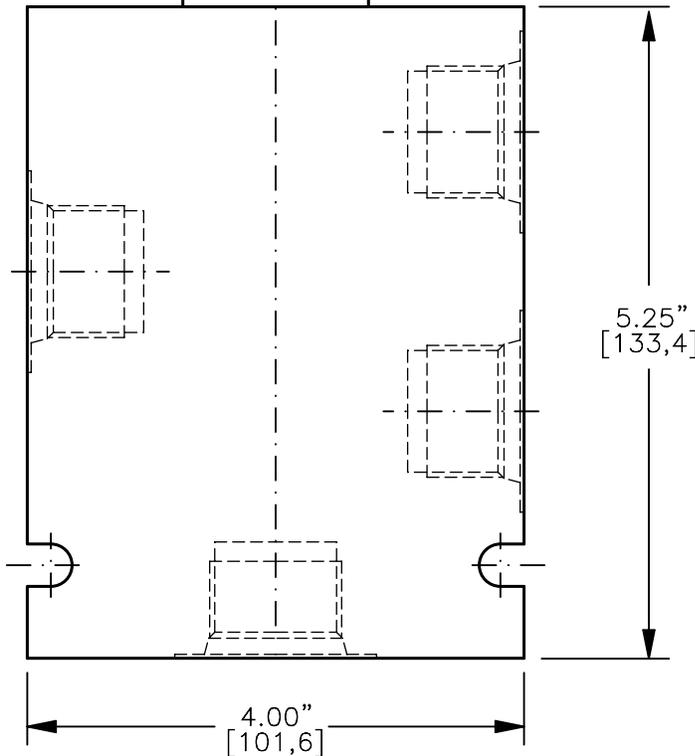
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**PRESSURE COMPENSATOR
SPOOL TYPE, PRIORITY-TYPE COMPENSATOR**



TORQUE:
Steel = 95/100 Ft-Lb. [129/136 Nm]
Aluminum = 70/75 Ft-Lb. [95/102 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-044.1

PCEB-16-X-X-X-XXX

BASIC

SIZE

16 = 1.312"-12 UNF

SEALS

N = BUNA "N"

V = VITON

ADJUSTMENT

F = FIXED (FACTORY SET)

S = ADJUSTING SCREW

C = CAPPED

T = TAMPERPROOF

PRESSURE BIAS SPRING

100 = 100 PSI (FIXED)

180 = 60-180 PSI (ADJ)

PORTS

0 = CARTRIDGE ONLY

06BX = G 3/4" BSPP

08BX = G 1" BSPP

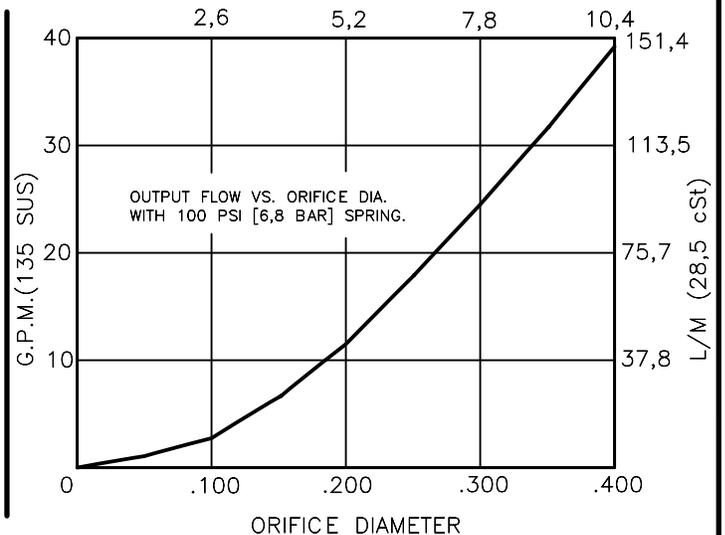
12TX = SAE - #12

16TX = SAE - #16

"A" - ALUM. HOUSING

"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0



**PRESSURE COMPENSATOR SPOOL TYPE,
PRIORITY-TYPE, PRESSURE COMPENSATING ELEMENT.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRESSURE-COMPENSATING PRIORITY TYPE FLOW ELEMENT, intended for use with a remote fixed or variable orifice to yield a three-port (bypass-type), pressure-compensated, flow regulating hydraulic valve.

OPERATIONS

This valve maintains a constant flow rate at port 3 regardless of load pressure changes in a circuit downstream of port 3.

This cartridge compensator flow element maintains a constant differential pressure circuit point "P" to port 3 thereby regulating the hydraulic flow rate between the two points in the circuit. This is a priority type regulator, delivering pump flow first to port 3, then by-passing excess flow to port 2. All ports can be fully pressurized.

FEATURES AND BENEFITS

Leakproof screw adjustment.

This valve has a fixed or an adjustable bias spring.

Adjustment screw can not be backed out of the valve.

Overset protection – spring can not go solid.

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides very low hysteresis and reliable operation.

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

Valve is available with fixed, screw, tamperproof and capped adjustments.

All cartridge valves are 100% functionally tested.

PRESSURE COMPENSATOR SPOOL TYPE,
PRIORITY-TYPE, PRESSURE COMPENSATING ELEMENT.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

INLET FLOW: 36.0 GPM [140 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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: Use undercut in cavity (port 4 only) to obtain max rated flow.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1642 for buna "N".

SKV-1642 for viton.

WEIGHT: 0.92 lb [.42 kg] cartridge only.

VALVE CAVITY: #C1640, See Page 0-044.0.

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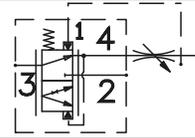
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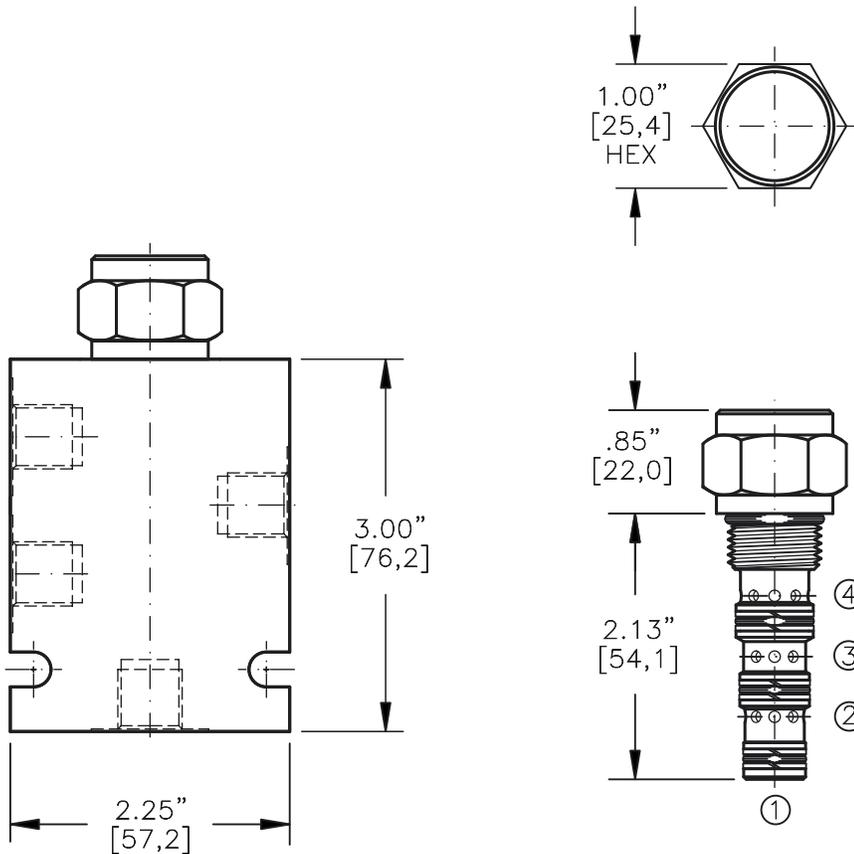
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PRIORITY ON DEMAND SPOOL ELEMENT
SPOOL TYPE, FOR LOAD SENSE STEERING.



TORQUE:

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

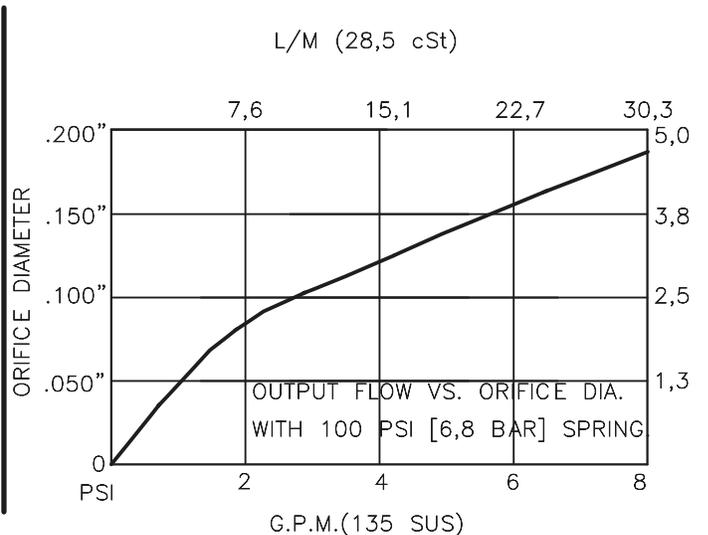


FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-041.1

PODS-08-X-F-X-XXX

BASIC
SIZE
08 = 3/4"-16 UNF
SEALS
N = BUNA "N"
V = VITON
ADJUSTMENT
"F" = FIXED ONLY

PRESSURE BIAS SPRING
050 = 50 PSI (FIXED)
100 = 100 PSI (FIXED)
150 = 150 PSI (FIXED)
PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
06TX = SAE - #6
"A" - ALUM. HOUSING
"S" - STEEL HOUSING



**PRIORITY ON DEMAND SPOOL ELEMENT.
SPOOL TYPE, FOR LOAD SENSE STEERING.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRIORITY ON DEMAND PRESSURE COMPENSATED FLOW CONTROL ELEMENT. This unit is used to provide a load sense steering first with the priority flow when the steering demands the flow and the amount it requires before any other function in the system. When the steering or any other priority functions are satisfied, only then the excess flow is diverted to the auxilliary port for other functions.

OPERATIONS

When the steering wheel is turned, the flow from port 3 is distributed to the priority port 4 when the system calls for it. The remaining flow is available to the rest of the working hydraulic system thru the excess port 2. The distribution is controlled by the load sense signal to port 1 from the steering unit, so the flow to the steering unit is always determined by the actual steering rate.

FEATURES AND BENEFITS

Hardened precision fitted spool & cage provides reliable, long life. A unibody cage construction provides a very low hysteresis and very reliable operation. All external carbon steel parts are plated for longer life against the elements. All cartridge valves are 100% functionally tested. Industry common cavity.

PRIORITY ON DEMAND SPOOL ELEMENT.
SPOOL TYPE, FOR LOAD SENSE STEERING.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

INLET FLOW: 8.0 GPM [30 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 L/M]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-0842 for buna "N".

SKV-0842 for viton.

WEIGHT: 0.26 lb [.12 kg] cartridge only.

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

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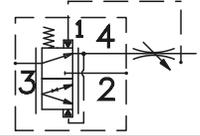
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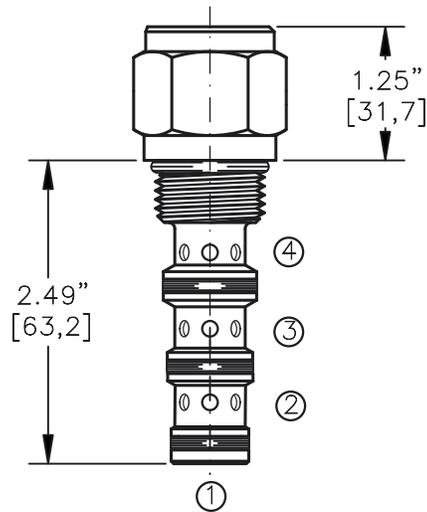
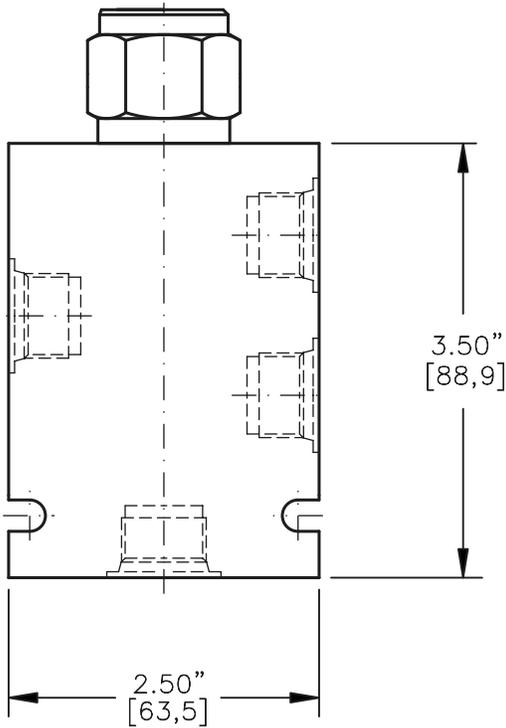
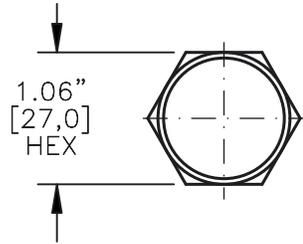
PRIORITY ON DEMAND SPOOL ELEMENT
SPOOL TYPE, FOR LOAD SENSE STEERING.



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

PODS-10-X-X-X-XXX

BASIC

SIZE
10 = 7/8"-14 UNF

SEALS

N = BUNA "N"
V = VITON

ADJUSTMENT

"F" = FIXED ONLY

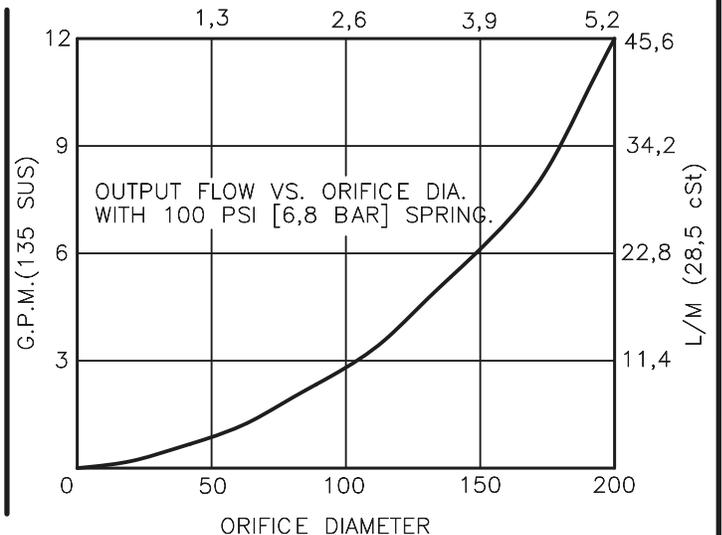
PRESSURE BIAS SPRING

050 = 50 PSI (FIXED)
100 = 100 PSI (FIXED)
150 = 150 PSI (FIXED)

PORTS

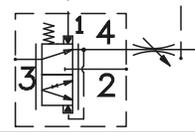
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8

"A" - ALUM. HOUSING
"S" - STEEL HOUSING



FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

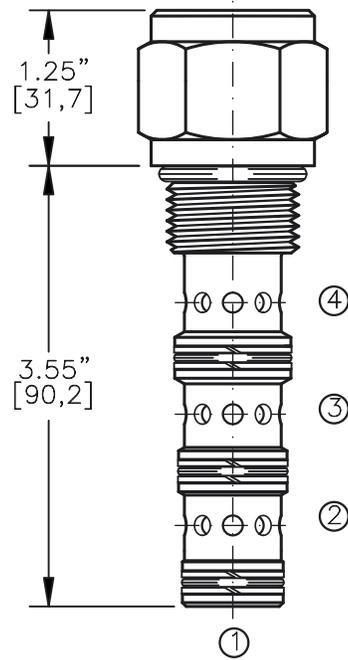
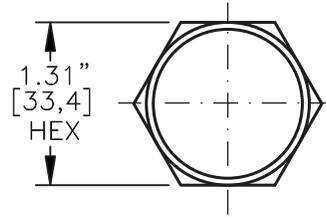
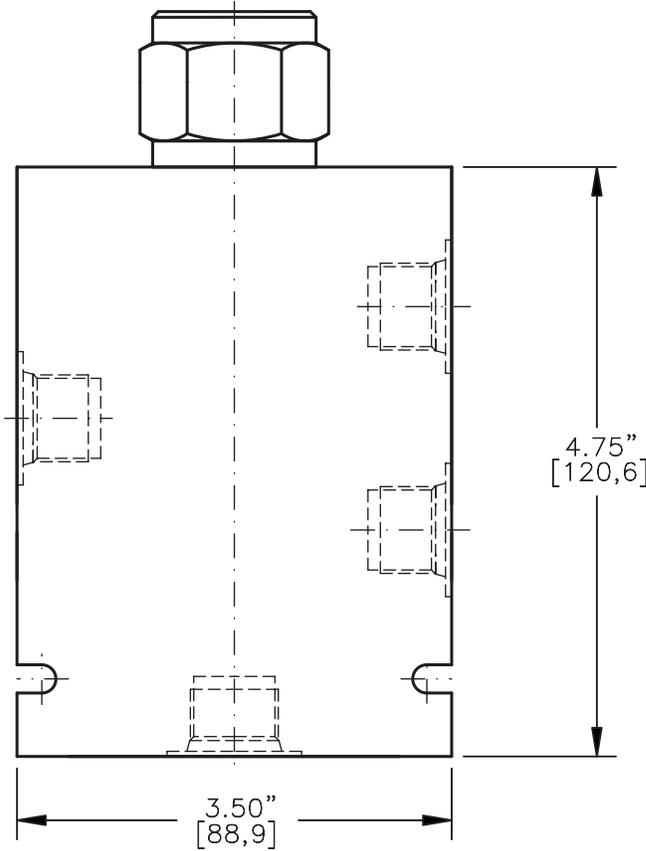
PRIORITY ON DEMAND SPOOL ELEMENT
SPOOL TYPE, FOR LOAD SENSE STEERING.



TORQUE:

Steel = 70/75 Ft-Lb. [95/102 Nm]

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



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-043.1

PODS-12-X-F-X-XXX

BASIC

SIZE

12 = 1.062"-12 UNF

SEALS

N = BUNA "N"

V = VITON

ADJUSTMENT

"F" = FIXED ONLY

— PRESSURE BIAS SPRING

050 = 50 PSI (FIXED)

100 = 100 PSI (FIXED)

150 = 150 PSI (FIXED)

— PORTS

0 = CARTRIDGE ONLY

04BX = G 1/2" BSPP

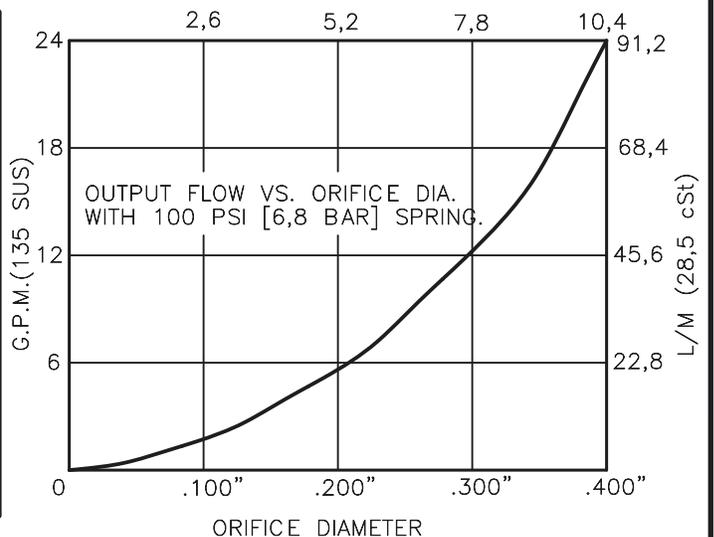
06BX = G 3/4" BSPP

10TX = SAE - #10

12TX = SAE - #12

— "A" - ALUM. HOUSING

"S" - STEEL HOUSING



**PRIORITY ON DEMAND SPOOL ELEMENT.
SPOOL TYPE, FOR LOAD SENSE STEERING.**

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRIORITY ON DEMAND PRESSURE COMPENSATED FLOW CONTROL ELEMENT. This unit is used to provide a load sense steering first with the priority flow when the steering demands the flow and the amount it requires before any other function in the system. When the steering or any other priority functions are satisfied, only then the excess flow is diverted to the auxiliary port for other functions.

OPERATIONS

When the steering wheel is turned, the flow from port 3 is distributed to the priority port 4 when the system calls for it. The remaining flow is available to the rest of the working hydraulic system thru the excess port 2.

The distribution is controlled by the load sense signal to port 1 from the steering unit, so the flow to the steering unit is always determined by the actual steering rate.

FEATURES AND BENEFITS

Hardened precision fitted spool & cage provides reliable, long life. A unibody cage construction provides a very low hysteresis and very reliable operation.

All external carbon steel parts are plated for longer life against the elements. All cartridge valves are 100% functionally tested.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]

PROOF PRESSURE: 10,000 PSI [700 Bar]

INLET FLOW: 24.0 GPM [91 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1242 for buna "N".

SKV-1242 for viton.

WEIGHT: .90 lb [.41 kg] cartridge only.

VALVE CAVITY: #C1240, See Page 0-043.0.

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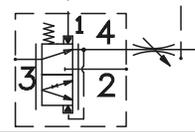
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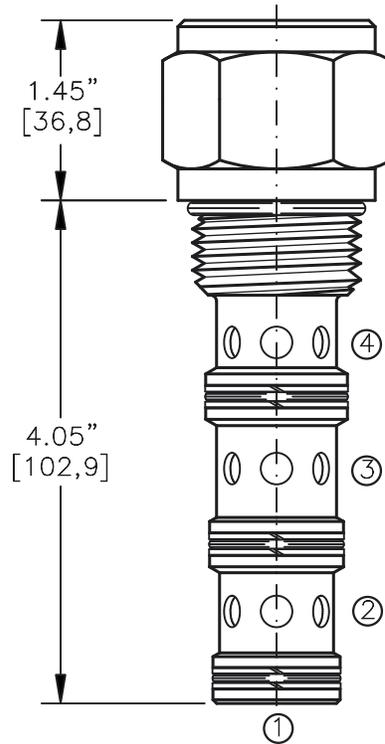
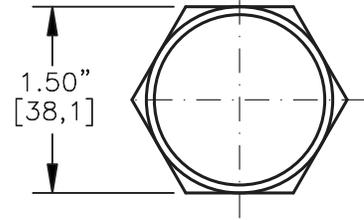
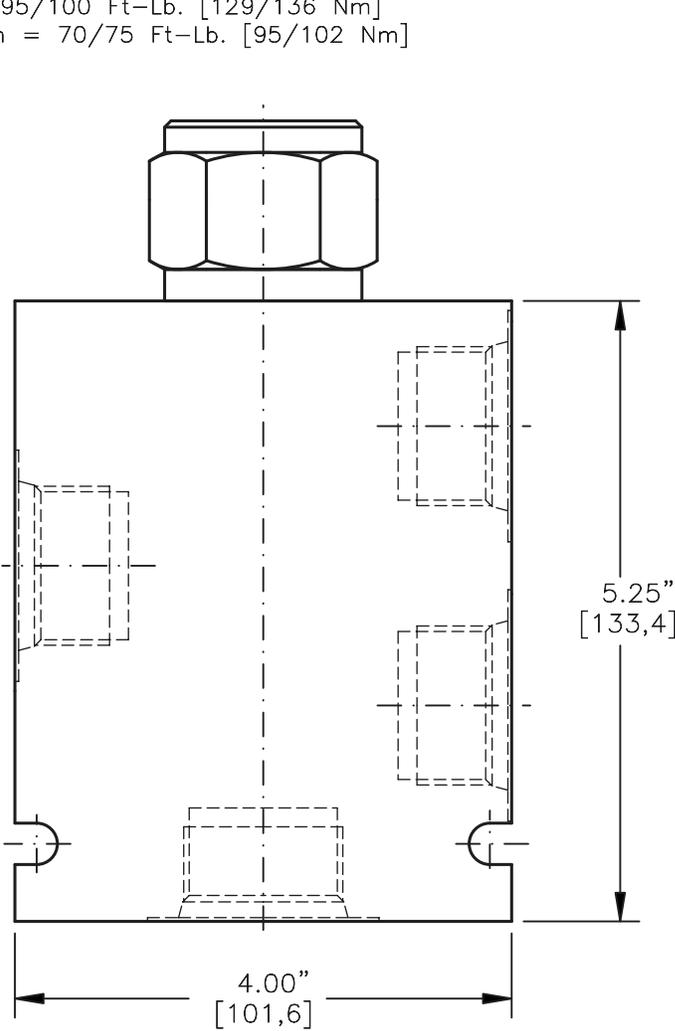
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PRIORITY ON DEMAND SPOOL ELEMENT.
SPOOL TYPE, FOR LOAD SENSE STEERING.



TORQUE:

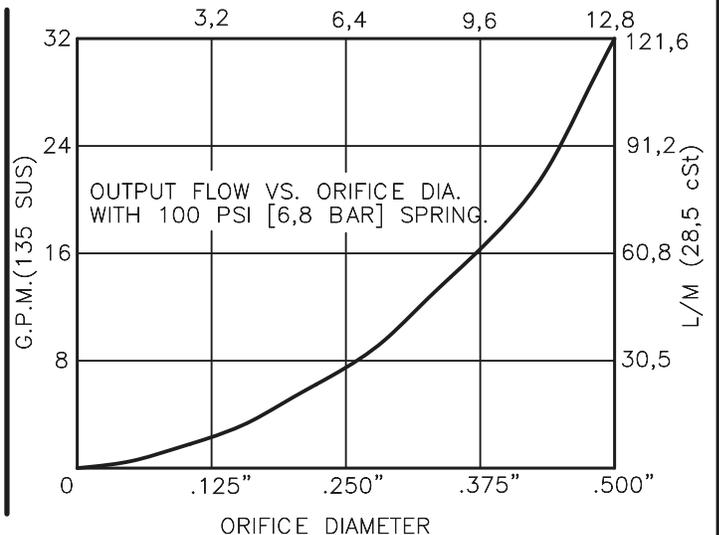
Steel = 95/100 Ft-Lb. [129/136 Nm]
Aluminum = 70/75 Ft-Lb. [95/102 Nm]



FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-044.1

PODS-16-X-X-X-XXX

- BASIC
- SIZE
16 = 1.312"-12 UNF
- SEALS
N = BUNA "N"
V = VITON
- ADJUSTMENT
"F" = FIXED ONLY
- PRESSURE BIAS SPRING
050 = 50 PSI (FIXED)
100 = 100 PSI (FIXED)
150 = 150 PSI (FIXED)
- PORTS
0 = CARTRIDGE ONLY
06BX = G 3/4" BSPP
08BX = G 1" BSPP
12TX = SAE - #12
16TX = SAE - #16
- "A" - ALUM. HOUSING
"S" - STEEL HOUSING



PRIORITY ON DEMAND SPOOL ELEMENT. SPOOL TYPE, FOR LOAD SENSE STEERING.

DESCRIPTION

This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, PRIORITY ON DEMAND PRESSURE COMPENSATED FLOW CONTROL ELEMENT. This unit is used to provide a load sense steering first with the priority flow when the steering demands the flow and the amount it requires before any other function in the system. When the steering or any other priority functions are satisfied, only then the excess flow is diverted to the auxilliary port for other functions.

OPERATIONS

When the steering wheel is turned, the flow from port 3 is distributed to the priority port 4 when the system calls for it.

The remaining flow is available to the rest of the working hydraulic system thru the excess port 2.

The distribution is controlled by the load sense signal to port 1 from the steering unit, so the flow to the steering unit is always determined by the actual steering rate.

FEATURES AND BENEFITS

Hardened precision fitted spool & cage provides reliable, long life.

A unibody cage construction provides a very low hysteresis and very reliable operation.

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]

INLET FLOW: 36.0 GPM [140 L/M]. Regulated see performance chart.

INTERNAL LEAKAGE: 5 cu.in./min. [85 cc/m].

DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]

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 restriction.

FILTRATION: 25 microns or better.

SEAL KIT NUMBER: SKN-1642 for buna "N".

SKV-1642 for viton.

WEIGHT: 1.30 lb [.59 kg] cartridge only.

VALVE CAVITY: #C1640, See Page 0-044.0.

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Pressure Compensated Flow Control, SAE 20 / NG 16

$Q_{\max} = 60 \text{ gpm [230 l/min]}$, $p_{\max} = 3000 \text{ psi [210 bar]}$
direct acting, slide piston design, hydraulic operated
Series PODS-20...



- Screw-in cartridge according to ISO 17209 – Common Cavity
- Compact construction
- For common cavities C2040 – 1 5/8-12 UN
- Reliable and high positive re-seat duration
- All external parts are zinc-plated for longer life
- All cartridges valves are 100% functionally tested

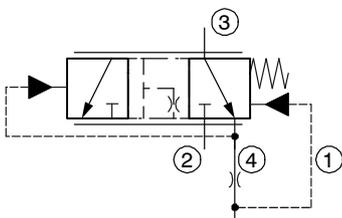
1 Description

Series PODS-20... pressure-compensated cartridges are size SAE 20 / NG 16, high performance screw-in cartridges with a 1 5/8-12 UN mounting thread.

This unit is a direct acting, screw in cartridge style, spool type, priority on demand pressure compensated flow control element. This unit is used to provide a load sense steering first with the priority flow when the steering demands the flow and the amount it requires before any other function in the system. When the steering or any other priority functions are satisfied, only then the excess flow is diverted to

the auxiliary port for other functions. When the steering wheel is turned, the flow from port 3 is distributed to the priority port 4 when the system calls for it. The remaining flow is available to the rest of the working hydraulic system thru the excess port 2. The distribution is controlled by the load sense signal to port 1 from the steering unit, so the flow to the steering unit is always determined by the actual steering rate. All external parts of the cartridge are zinc plated and are thus suitable for use in the harshest operating environments.

2 Symbol



PODS-20...

3 Technical data

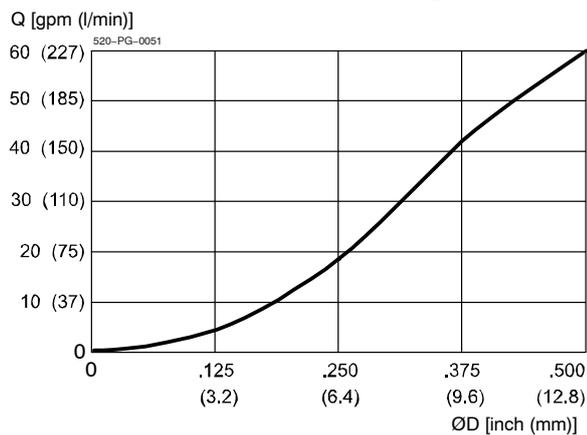
General characteristics	Description, value, unit
Designation	pressure-compensated flow control
Design	direct acting, slide piston design, hydraulic operated
Mounting method	screw-in cartridge 1 5/8-12 UN
Tightening torque	see chapter 5, dimensions & sectional view
Size	SAE 20 / NG 16 for cavity type C2040
Weight	3.10 lbs [1.41 kg]
Mounting attitude	unrestricted
Ambient temperature range	-40 °F...+248 °F [-40 °C...+120 °C]

Hydraulic characteristics	Description, value, unit	
Maximum operating pressure	3000 psi	[210 bar]
Maximum flow rate	60 gpm	[230 l/min]
Flow direction	see symbol	
Hydraulic fluid	HL and HLP mineral oil to DIN 51 524; for other fluids, please contact BUCHER	
Hydraulic fluid temperature range	-13 °F...+158 °F	[-25 °C...+70 °C]
Viscosity range	10...500 mm ² /s (cSt), recommended 15...250 mm ² /s (cSt)	
Minimum fluid cleanliness Cleanliness class to ISO 4406 : 1999	class 18/16/13	

4 Performance graphs

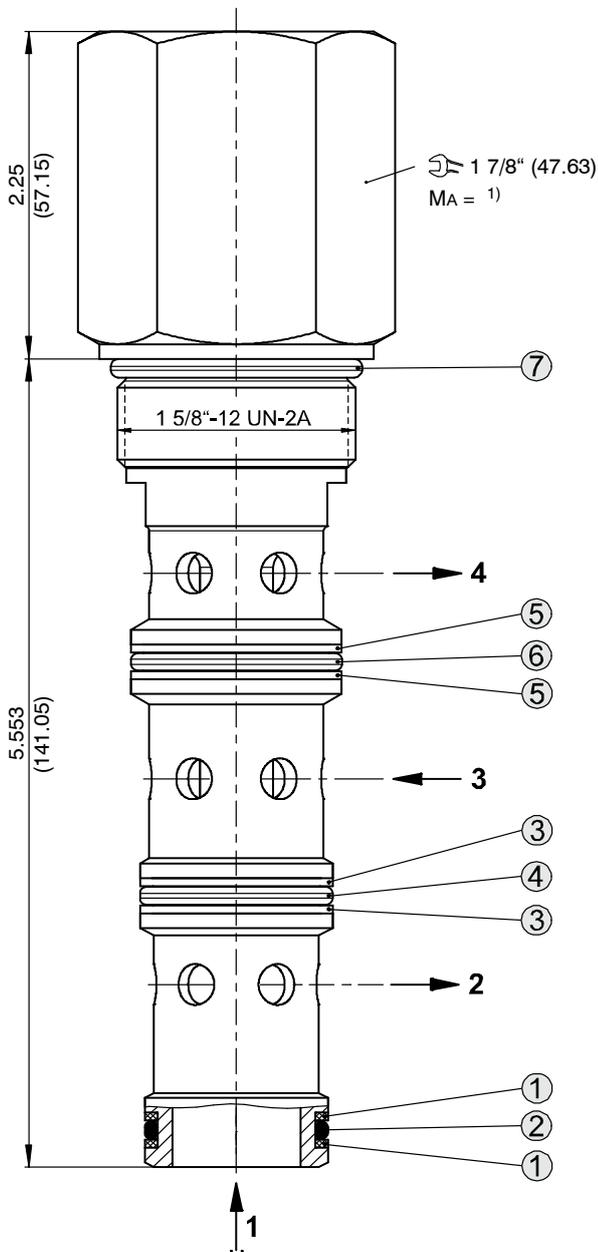
measured with oil viscosity 33 mm²/s (cSt)

Q = f (Ø) Flow - Equivalent throttle orifice dia characteristic
flow 3 → 4 with 175 psi spring



5 Dimensions & sectional view

Dimensions in inches (millimeters)



Tightening torque M_A ¹⁾ $\pm 10\%$

Cavity type	C2040
When fitted in steel/aluminum	135 ft-lbs (183 [Nm])

6 Installation information



ATTENTION!

Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.



IMPORTANT!

When fitting the cartridges, use the specified tightening torque. No adjustments are necessary, since the cartridges are set in the factory.

Seal kit NBR no. SKN-2042 ²⁾

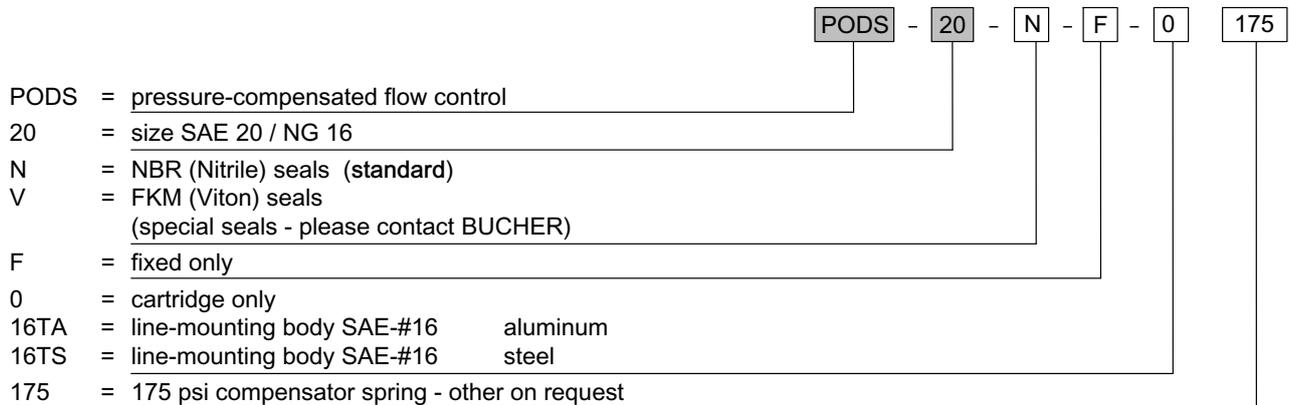
Item	Qty.	Description	
7	1	O-ring no. 920 \varnothing 1.475 x 0.118 N90	Inch
6	2	O-ring no. 124 \varnothing 1.237 x 0.103 N70	Inch
4	2	O-ring no. 122 \varnothing 1.112 x 0.103 N70	Inch
2	2	O-ring no. 121 \varnothing 1.049 x 0.103 N70	Inch
5	2	Backup ring no. 121	Inch
3	2	Backup ring no. 122	Inch
1	2	Backup ring no. 124	Inch



IMPORTANT!

²⁾ Seal kit with FKM (Viton) seals, no. SKV-2042

7 Ordering code



8 Related data sheets

Reference	(Old no.)	Description
520-P-000050		Form tools
520-P-000450		Cavity type C2040

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Classification: 430.310.320.305.330.320