# Logic and Compensator Elements

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Reference: 520-P-070000-EN-00/09.2015
LOGIC CONTROL ELEMENT
SPOOL TYPE, PILOT TO CLOSE, SPOOL "A"

2.50" [63,5]

2.25" [57,1]

1.62" [41,1] MAX

1.07" [27,2]

.315" [8.0] HEX.

1.00" [25,4] HEX

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

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

REFERENCE: 520-P-070110-EN-00/09.2015

L/M (28,5 cSt)

G.P.M. (135 SUS)

PRESSURE DROP (Δ P)
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.
# 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 CLOSE, SPOOL "A".

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

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

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

Reference: 520-P-070120-EN-00/09.2015
### 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.

Reference: 520-P-070120-EN-00/09.2015
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]
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.
LCEF-12-A

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

"S" screw adjustment
"F" fixed

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

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

TORQUE:

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

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

Reference: 520-P-070130-EN-00/09.2015
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]
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.
LCEF-08-C

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

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

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

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<td>F = FIXED (FACTORY SET)</td>
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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

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

ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

Reference: 520-P-070310-EN-00/09.2015
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]

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”.
50/50 [SKV–0827] for viton.

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

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

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

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

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

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

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

PORTS
0 = CARTRIDGE ONLY
038X = G 3/8" BSPP
048X = G 1/2" BSPP
08TX = SAE - #8
10TX = SAE - #10

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

Reference: S20-P-070320-EN-00/09.2015
## 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.

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**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]
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.
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
048X = G 1/2" BSPP
068X = G 3/4" BSPP
10TX = SAE - #10
121X = SAE - #12

L/M (28.5 cSt)

PRESSURE DROP (∆P)

PSI
0 9 18 27 36
BAR
0 36

G.P.M. (135 SUS)

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-023-1.
DESCRIPTION
This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPPOOL 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.
## 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.
LOGIC CONTROL ELEMENT
SPOOL TYPE, VENT TO CLOSE, SPOOL "D"

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

LCEF-08-D

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

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
FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0–050.0

PRESSURE DROP (ΔP)

L/M (28.5 cSt)

PSI
G.P.M.(1.35 SUS)

Reference: 520-P-070410-EN-00/09.2015
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]
                  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, VENT TO CLOSE, SPOOL "D".

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
101X = SAE - #10

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

Reference: 520-P-070420-EN-00/09.2015

LCEF-10-D
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]
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.
LCEF-12-D

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

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

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

"S" screw adjustment
"F" fixed

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

L/M (28.5 cSt)

PRES. DROP (P)

PSI
0 9 18 27 36

G.P.M.(135 SUS)
0 9 18 27 36

BAR
0 9 18 27 36

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

Ports
0 = CARTRIDGE ONLY
06BXX = G 1/2" BSPP
08BX = G 3/4" BSPP
10TX = SAE - #10
12TX = SAE - #12

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

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

Reference: 520-P-070430-EN-00/09.2015
**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.
LCEF-08-F

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

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

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

For adjustment control options see page 0-050.0

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

Reference: 520-P-070610-EN-00/09.2015

L/M (28.5 cSt)
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]
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]

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
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
048X = G 1/2" BSPP
084X = G 3/8" BSPP
087X = SAE – #8
101X = SAE – #10

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

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

Reference: S20-P-070620-EN-00/09.2015
### 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]
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.
LCEF-12-F

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]

"S" screw adjustment
"F" fixed

"S" = STEEL HOUSING
"A" = ALUM. HOUSING

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

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0–050.0

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

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

[X] = ALUM. HOUSING
"S" = STEEL HOUSING

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

Reference: 520-P-070630-EN-00/09.2015
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]
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.
PRESSURE COMPENSATOR
SPOOL TYPE, INLINE-TYPE COMPENSATOR

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

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

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

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

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

L/M (28.5 cSt)

PCEI-08

Reference: S20-P-071110-EN-00/09.2015
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.
PCEI-10

PRESSURE COMPENSATOR
SPOOL TYPE, INLINE–TYPE COMPENSATOR

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

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

ORIFICE DIAMETER

PSI

L/M (28,5 cSt)

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
028X = G 1/4" BSPP
038X = G 3/8" BSPP
06TX = SAE – #6
08TX = SAE – #8

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

Reference: S20-P-071120-EN-00/09.2015
**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 Cavities:** #C1030, See Page 0-032.0
- **Weight:** 0.42 lb [.19 kg] cartridge only.
- **Seal Kit Number:** SKN-1032 for buna "N".
- **Filtration:** 25 microns or better.
- **Installation:** Use undercut in cavity (port 3 only) to obtain max rated flow.
- **Operating Media:** All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
- **Operating Temperature:** -40° to +250° F. [-40° to +120° C.]
- **Pressure Compensator Spool Type, Inline-Type, Pressure Compensating Element.**
- **Operating Pressure:** 5000 PSI [350 Bar] = Steel - Unplated.
- **Valve Housings:** 2500 PSI [175 Bar] = Aluminum - Anodized.
- **Proof Pressure:** 10,000 PSI [700 Bar] = Steel - Unplated.
- **Operating Pressure:** 5000 PSI [350 Bar] = Steel - Unplated.
- **Valve Housings:** 2500 PSI [175 Bar] = Aluminum - Anodized.
- **Seal Kit Number:** SKN-1032 for buna "N".
- **Seal Kit Number:** SKV-1032 for viton.
- **Weight:** 0.42 lb [.19 kg] cartridge only.
- **Valve Cavity:** #C1030, See Page 0-032.0.
FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-033.1

**PRESSURE COMPENSATOR**

SPool TYPE, INLINE-TYPE COMPENSATOR

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

**OPTIONS SEE PAGE 0-050.0**

---

**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**
  - O = CARTRIDGE ONLY
  - 04BX = G 1/2" BSPP
  - 06BX = G 3/4" BSPP
  - 10TX = SAE - #10
  - 12TX = SAE - #12

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

---

**OUTPUT FLOW VS. ORIFICE DIA.**

- WITH 100 PSI [6,8 BAR] SPRING.

---

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

---

**PCEI-12-X-X-X-XXX**

- **L/M (28,5 cSt)**
  - 0 = 6,8 BAR
  - 10,4 = 150 GPM

---

Reference: 520-P-071130-EN-00/09.2015
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.
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]
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.
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

Output flow vs. orifice dia.
With 100 PSI [6.8 BAR] spring.

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 0-034.1

Reference: 520-P-071140-EN-00/09.2015

Steel = 95/100 Ft-Lb. [129/136 Nm]
Aluminum = 70/75 Ft-Lb. [95/102 Nm]
## 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.
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].
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.
FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-041.1

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

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

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

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

OUTPUT FLOW VS. ORIFICE DIAM.
WITH 100 PSI [6,8 BAR] SPRING

L/M (28,5 cSt)

G.P.M. (135 SUS)

Reference: 520-P-071510-EN-00/09.2015
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.
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]
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.
PCEB-10

PRESSURE COMPENSATOR
SPOOL TYPE, PRIORITY-TYPE COMPENSATOR

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

REFERENCE: 520-P-071520-EN-00/09.2015

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

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, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure</td>
<td>5,000 PSI [350 Bar]</td>
</tr>
<tr>
<td>Proof Pressure</td>
<td>10,000 PSI [700 Bar]</td>
</tr>
<tr>
<td>Inlet Flow</td>
<td>18.0 GPM [68 L/M]. Regulated see performance chart.</td>
</tr>
<tr>
<td>Internal Leakage</td>
<td>5 cu.in./min. [85 cc/min].</td>
</tr>
<tr>
<td>Definition of Crack</td>
<td>evident at 0.06 GPM [0.25 LPM]</td>
</tr>
<tr>
<td>Valve Cavities</td>
<td>#C1040, See Page 0-042.0</td>
</tr>
<tr>
<td>Weight</td>
<td>0.46 lb [.21 kg] cartridge only.</td>
</tr>
<tr>
<td>Filtration</td>
<td>25 microns or better.</td>
</tr>
<tr>
<td>Seal Kit Number</td>
<td>SKN-1042 for buna &quot;N&quot;. SKV-1042 for Viton.</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40° to +250° F. [-40° to +120° C.]</td>
</tr>
<tr>
<td>Operating Media</td>
<td>All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.</td>
</tr>
<tr>
<td>Installation</td>
<td>Use undercut in cavity (port 4 only) to obtain max rated flow.</td>
</tr>
<tr>
<td>Filtration</td>
<td>25 microns or better.</td>
</tr>
<tr>
<td>Filtration</td>
<td>25 microns or better.</td>
</tr>
<tr>
<td>Filtration</td>
<td>5000 PSI [350 Bar] = Steel – Unplated.</td>
</tr>
<tr>
<td>Filtration</td>
<td>5000 PSI [350 Bar] = Steel – Unplated.</td>
</tr>
<tr>
<td>Filtration</td>
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</tr>
<tr>
<td>Filtration</td>
<td>5000 PSI [350 Bar] = Steel – Unplated.</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40° to +250° F. [-40° to +120° C.]</td>
</tr>
<tr>
<td>Operating Media</td>
<td>All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.</td>
</tr>
<tr>
<td>Installation</td>
<td>Use undercut in cavity (port 4 only) to obtain max rated flow.</td>
</tr>
<tr>
<td>Filtration</td>
<td>25 microns or better.</td>
</tr>
<tr>
<td>Seal Kit Number</td>
<td>SKN-1042 for buna &quot;N&quot;. SKV-1042 for Viton.</td>
</tr>
<tr>
<td>Weight</td>
<td>0.46 lb [.21 kg] cartridge only.</td>
</tr>
<tr>
<td>Valve Cavities</td>
<td>#C1040, See Page 0-042.0</td>
</tr>
</tbody>
</table>

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WWW.BUCHERHYDRAULICS.COM/COMMONCAVITY

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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]

### Adjustments:
- **F**: Fixed (Factory Set)
- **S**: Adjustable Screw
- **C**: Capped
- **T**: Tamperproof

### Options:
- For adjustment control options see page 0-050.0

### Pressure Bias Spring:
- 075 = 75 PSI (Fixed)
- 100 = 100 PSI (Fixed)
- 160 = 40–160 PSI (Adjustable)

### Ports:
- **0**: Cartridge Only
- **048X**: G 1/2” BSPP
- **068X**: G 3/4” BSPP
- **10TX**: SAE – #10
- **12TX**: SAE – #12

### Seals:
- **N**: Buna "N"
- **V**: Viton

### Pressure Compensator with 100 PSI [6.8 BAR] Spring:

<table>
<thead>
<tr>
<th>Output Flow (GPM)</th>
<th>Orifice Diameter (L/M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0.100</td>
</tr>
<tr>
<td>6</td>
<td>0.200</td>
</tr>
<tr>
<td>10.4</td>
<td>0.400</td>
</tr>
</tbody>
</table>

### Reference:
Reference: 520-P-071530-EN-00/09.2015
**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.
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]
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 [0.42 kg] cartridge only.
VALVE CAVITY: #C1240, See Page 0–043.0.

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Reference: 520-P-071530-EN-00/09.2015
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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure</td>
<td>5,000 PSI [350 Bar]</td>
</tr>
<tr>
<td>Proof Pressure</td>
<td>10,000 PSI [700 Bar]</td>
</tr>
<tr>
<td>Inlet Flow</td>
<td>36.0 GPM [140 L/M]</td>
</tr>
<tr>
<td>Internal Leakage</td>
<td>5 cu.in./min. [85 cc/m].</td>
</tr>
<tr>
<td>Definition of Crack</td>
<td>evident at 0.06 GPM [0.25 LPM]</td>
</tr>
<tr>
<td>Valve Housing</td>
<td>2500 PSI [175 Bar] = Aluminum – Anodized.</td>
</tr>
<tr>
<td></td>
<td>5000 PSI [350 Bar] = Steel – Unplated.</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40° to +250° F. [-40° to +120° C.]</td>
</tr>
<tr>
<td>Operating Media</td>
<td>All general purpose hydraulic fluids such as MIL–H–5606, SAE–#10, SAE–#20, etc.</td>
</tr>
<tr>
<td>Installation</td>
<td>Use undercut in cavity (port 4 only) to obtain max rated flow.</td>
</tr>
<tr>
<td>Filtration</td>
<td>25 microns or better.</td>
</tr>
<tr>
<td>Seal Kit Number</td>
<td>SKN–1642 for buna &quot;N&quot;.</td>
</tr>
<tr>
<td></td>
<td>SKV–1642 for viton.</td>
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<tr>
<td>Weight</td>
<td>0.92 lb [.42 kg] cartridge only.</td>
</tr>
<tr>
<td>Valve Cavity</td>
<td>#C1640, See Page 0–044.0.</td>
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</table>

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Reference: 520-P-071540-EN-00/09.2015
PODS-08

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

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

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

OUTPUT FLOW VS. ORIFICE DIA.
WITH 100 PSI [6,8 BAR] SPRING.

<table>
<thead>
<tr>
<th>PSI</th>
<th>G.P.M. (135 SUS)</th>
<th>L/M (28,5 cSt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.050&quot;</td>
<td>7.6</td>
</tr>
<tr>
<td>50</td>
<td>0.100&quot;</td>
<td>15,1</td>
</tr>
<tr>
<td>100</td>
<td>0.150&quot;</td>
<td>22,7</td>
</tr>
<tr>
<td>150</td>
<td>0.200&quot;</td>
<td>30,3</td>
</tr>
</tbody>
</table>

SEALS
N = BUNA "N"
V = VITON
ADJUSTMENT
"F" = FIXED ONLY

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

PODS-08-X-F-X-XXX

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

TORQUE:
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]
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. Industry common cavity.
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]

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 [0.12 kg] cartridge only.

VALVE CAVITY: #C0840, See Page 0–041.0.
PODS-10

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 ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

PODS-10-X-X-X-XXX

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 ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-042.1

FOR ADJUSTMENT CONTROL
OPTIONS SEE PAGE 0-050.0

Reference: 520-P-071620-EN-00/09.2015
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. Industry common cavity.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar] 
PROOF PRESSURE: 10,000 PSI [700 Bar] 
INLET FLOW: 16.0 GPM [60 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] 
OPERATING TEMPERATURE: −40°F to +250°F. [−40°C 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−1042 for buna ”N”. SKV−1042 for Viton. 
WEIGHT: 0.42 lb [.19 kg] cartridge only. 
VALVE CAVITY: #C1040, See Page 0−042.0.
PODS-12

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]

REFERENCE: 520-P-071630-EN-00/09.2015
PRIORIT 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.

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]
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.
PODS-16

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]

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
06BX = G 3/4" BSPP
08BX = G 1" BSPP
12TX = SAE - #12
16TX = SAE - #16

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

OUTPUT FLOW VS. ORIFICE DIA.
WITH 100 PSI [6,8 BAR] SPRING.

Reference: 520-P-071640-EN-00/09.2015
# 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. 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.

Reference: S20-P-071640-EN-00/09.2015