

Technical Information

- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical Data

General Description

2 Way, Normally Closed, Proportional Poppet Valve with Pressure Compensation. For additional information see Technical Tips on pages PV1-PV6.

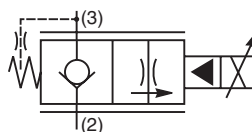
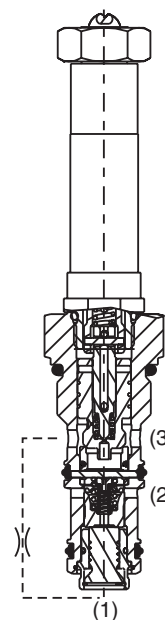
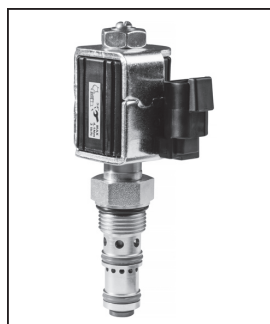
Features

- Low leakage poppet design with no dynamic seal to wear out on the compensator
- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- External surfaces plated
- Excellent low flow metering capability

Specifications

All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

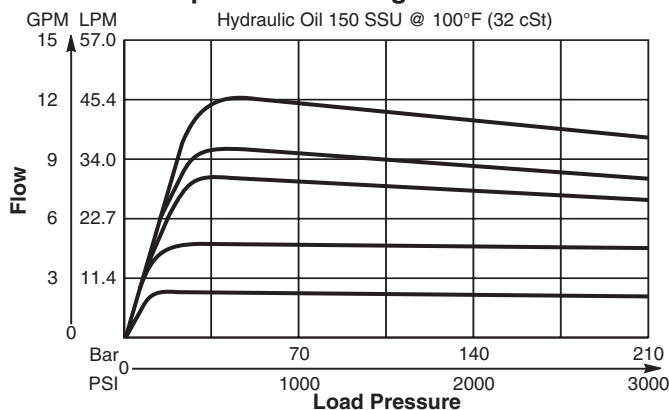
Rated Flow @ 70% of Full Current at ΔP 34.5 Bar (500 PSI)	38 LPM (10 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
Cartridge Material	All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 18/16/13, SAE Class 4
Approx. Weight	.24 kg (.52 lbs.)
Cavity	3X (See BC Section for more details)



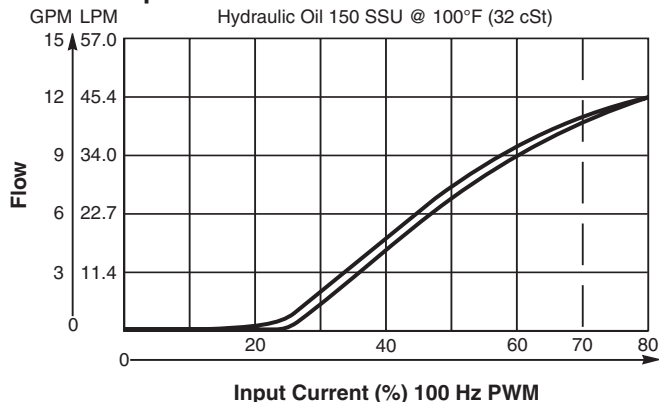
Note: Always connect Port (3) to Port (1) through .031" orifice. For FAPC101 only.

Performance Curves

Pressure Compensation of Regulated Flow



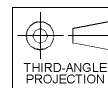
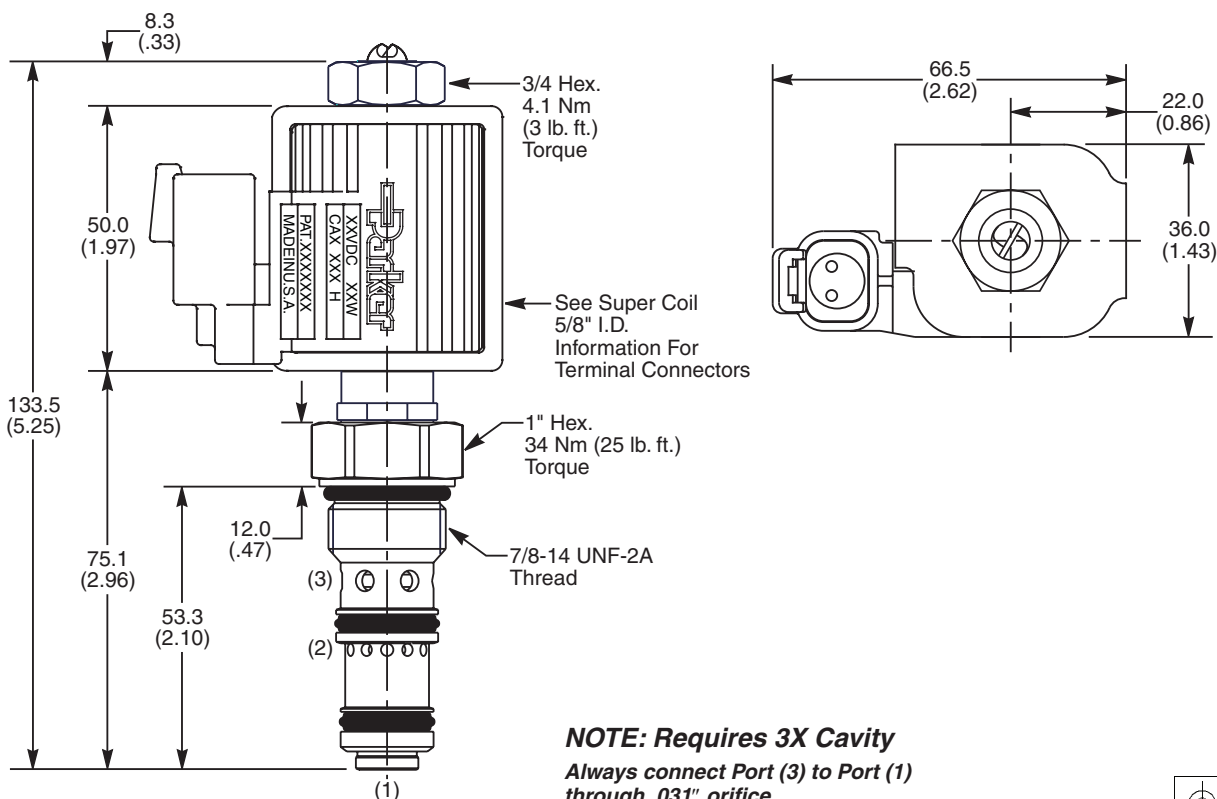
Flow vs. Input Current



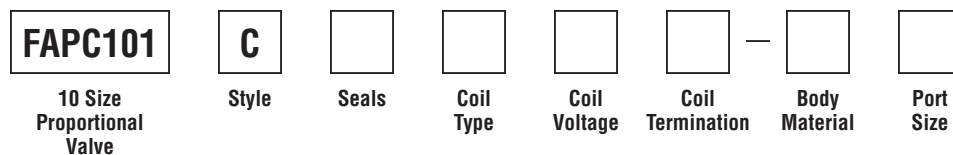
Pressure Comp. Proportional Poppet Valve Series FAPC101C

Technical Information

Dimensions Millimeters (Inches)



Ordering Information



Code	Style
C	Normally Closed

Code	Coil Type
Omit	Without Coil
SS	Super Coil - 18 Watts

Code	Coil Termination
Omit	Without Coil
D	DIN Plug Face
A	Amp Jr. Timer*
S	Dual Spade*
W	Dual Screw*
L	Dual Lead Wire*
H	Molded Deutsch*
PF	Dual Lead Wire with Packard Female Weather Pack Connector 1201 5792*
PM	Dual Lead Wire with Packard Male Weather Pack Connector 1201 0973*

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3S)
N	Nitrile / Buna-N (Std.) (SK10-3XN)
V	Fluorocarbon / (SK10-3SV)

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC

Code	Port Size	Body Part No.
Omit	Cartridge Only	
8T	SAE-8	(B10-3X-*8T)

* Add "A" for aluminum, omit for steel.
Body includes orifice and port connection.

See Super Coil 5/8" I.D.
*DC Only



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CV
Check Valves

SH
Shuttle Valves

LM
Load/Motor Controls

FC
Flow Controls

PC
Pressure Controls

LE
Logic Elements

DC
Directional Controls

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Manual Valves

SV
Solenoid Valves

PV
Proportional Valves

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Technical Data

General Description

2 Way, Normally Closed, Proportional Poppet Valve with Pressure Compensation. For additional information see Technical Tips on pages PV1-PV6.

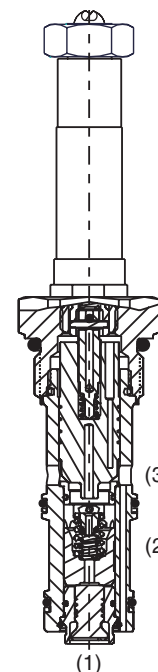
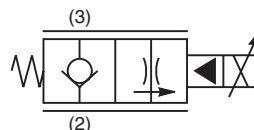
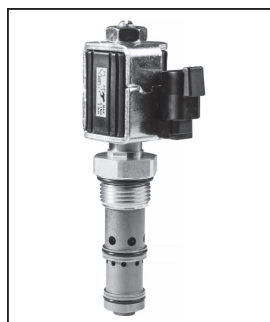
Features

- Low leakage poppet design with no dynamic seal to wear out on the compensator
- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- External surfaces plated
- Excellent low flow metering capability

Specifications

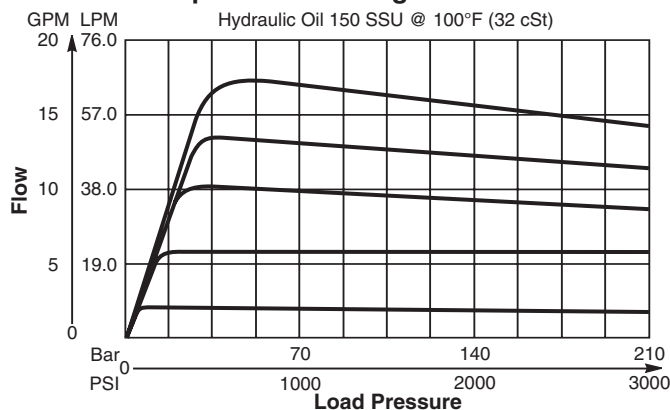
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

Rated Flow @ 70% of Full Current at ΔP 34.5 Bar (500 PSI)	57 LPM (15 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
Cartridge Material	All operating parts hardened steel.
Operating Temp. Range/Seals	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 18/16/13, SAE Class 4
Approx. Weight	.36 kg (.79 lbs.)
Cavity	C12-3L (See BC Section for more details)

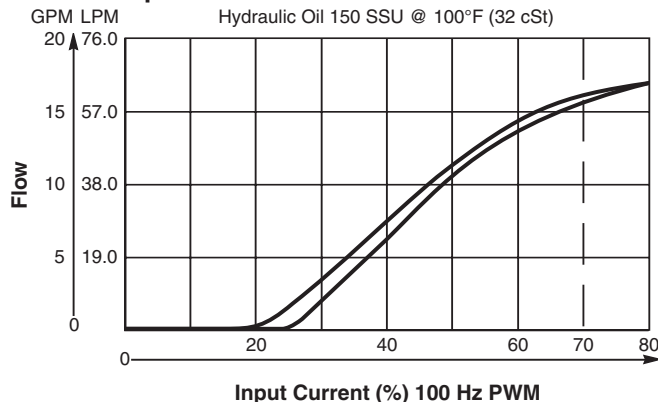


Performance Curves

Pressure Compensation of Regulated Flow

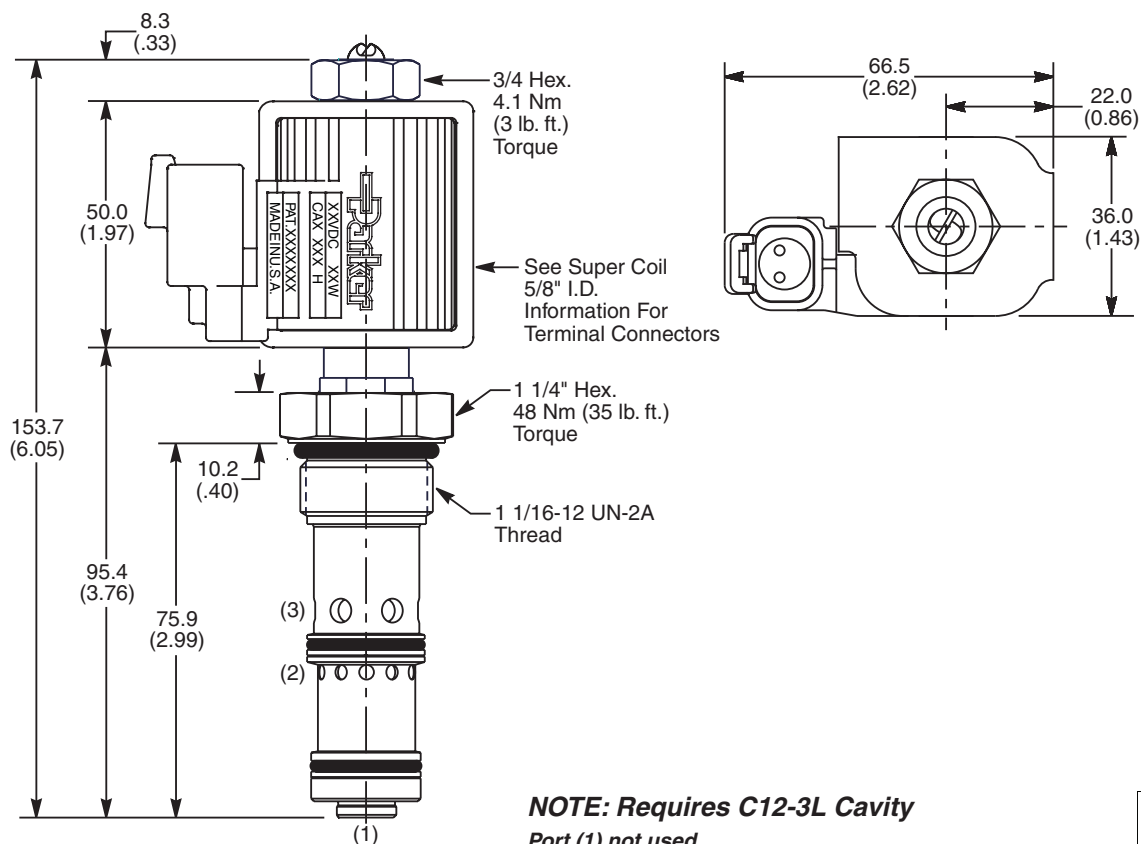


Flow vs. Input Current

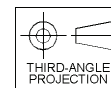


Technical Information

Dimensions Millimeters (Inches)



NOTE: Requires C12-3L Cavity
Port (1) not used.



Ordering Information

FAPC121 **C**

12 Size Proportional Valve Style Seals Coil Type Coil Voltage Coil Termination Body Material Port Size

Code	Style
C	Normally Closed

Code	Coil Type
Omit	Without Coil
SS	Super Coil - 18 Watts

Code	Coil Termination
Omit	Without Coil
D	DIN Plug Face
A	Amp Jr. Timer*
S	Dual Spade*
W	Dual Screw*
L	Dual Lead Wire*
H	Molded Deutsch*
PF	Dual Lead Wire with Packard Female Weather Pack Connector 1201 5792*
PM	Dual Lead Wire with Packard Male Weather Pack Connector 1201 0973*

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
N	Nitrile / Buna-N (Std.) (SK12-3LN)
V	Fluorocarbon / (SK12-3LV)

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12T	SAE-12	(B12-3L-*12T)

* Add "A" for aluminum, omit for steel.
Plug Port (1) when using standard body.

See Super Coil 5/8" I.D.
*DC Only



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General Description

2 Way, Normally Closed, Proportional Poppet Valve with Pressure Compensation. For additional information see Technical Tips on pages PV1-PV6.

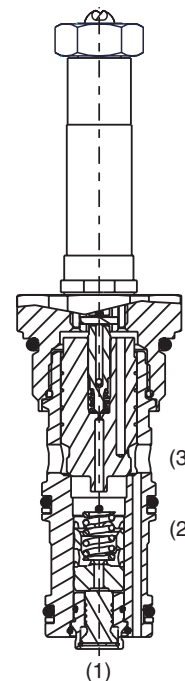
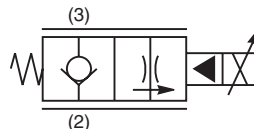
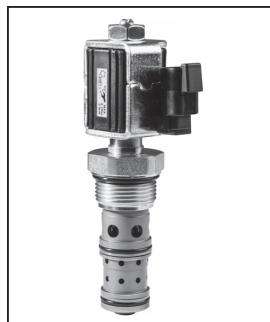
Features

- Low leakage poppet design with no dynamic seal to wear out on the compensator
- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- Industry common cavity
- External surfaces plated
- Excellent low flow metering capability

Specifications

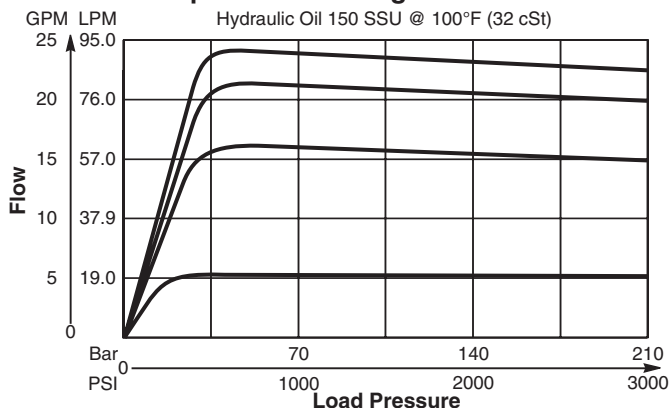
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

Rated Flow @ 70% of Full Current at ΔP 34.5 Bar (500 PSI)	83 LPM (22 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
Cartridge Material	All operating parts hardened steel.
Operating Temp. Range/Seals	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 18/16/13, SAE Class 4
Approx. Weight	.48 kg (1.08 lbs.)
Cavity	C16-3 (See BC Section for more details)

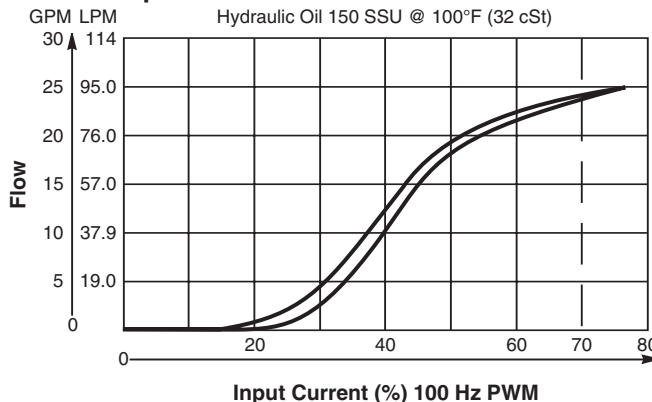


Performance Curves

Pressure Compensation of Regulated Flow



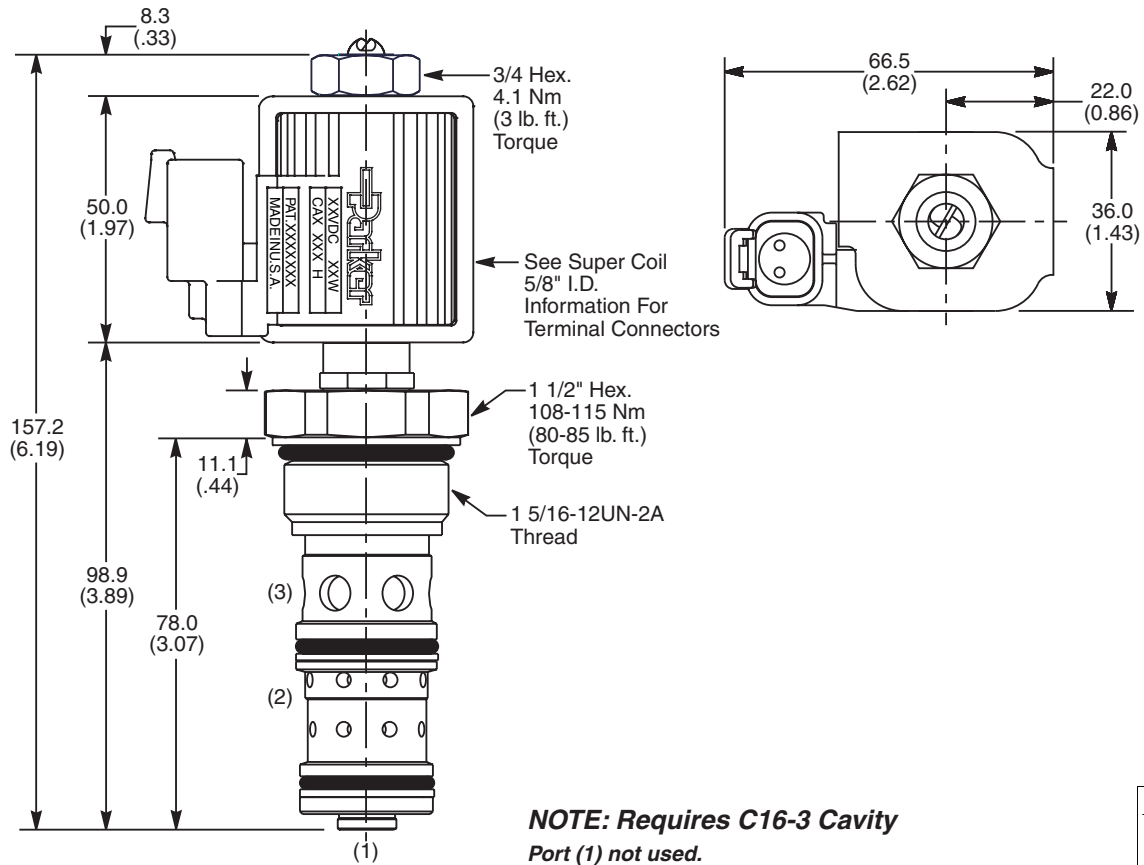
Flow vs. Input Current



Technical Information

Pressure Comp. Proportional Poppet Valve Series FAPC161C

Dimensions Millimeters (Inches)



Ordering Information

FAPC161 **C**

16 Size Proportional Valve Style Seals Coil Type Coil Voltage Coil Termination Body Material Port Size

Code	Style
C	Normally Closed

Code	Coil Type
Omit	Without Coil
SS	Super Coil - 18 Watts

Code	Coil Termination
Omit	Without Coil
D	DIN Plug Face
A	Amp Jr. Timer*
S	Dual Spade*
W	Dual Screw*
L	Dual Lead Wire*
H	Molded Deutsch*
PF	Dual Lead Wire with Packard Female Weather Pack Connector 1201 5792*
PM	Dual Lead Wire with Packard Male Weather Pack Connector 1201 0973*

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
N	Nitrile / Buna-N (Std.) (SK16-3)
V	Fluorocarbon / (SK16-3V)

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC

Code	Port Size	Body Part No.
Omit	Cartridge Only	
16T	SAE-16	(B16-3-*16T)

* Add "A" for aluminum, omit for steel. Plug Port (1) when using standard body.

See Super Coil 5/8" I.D.
*DC Only



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General Description

2 Way, Normally Open, Proportional Poppet Valve with Pressure Compensation. For additional information see Technical Tips on pages PV1-PV6.

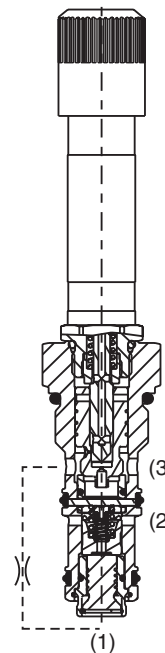
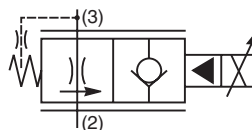
Features

- Low leakage poppet design with no dynamic seal to wear out on the compensator
- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- External surfaces plated
- Excellent low flow metering capability

Specifications

All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

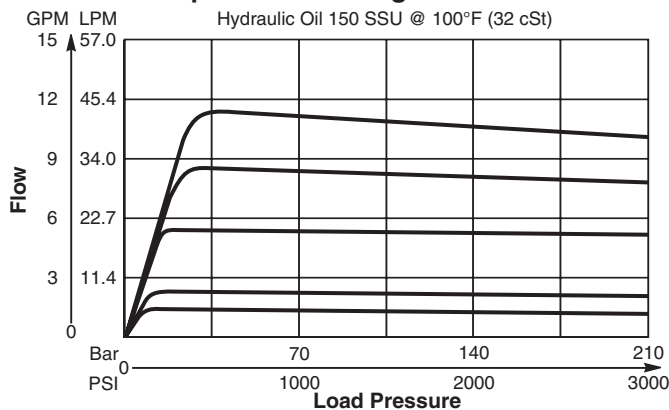
Rated Flow De-Energized at ΔP 34.5 Bar (500 PSI)	38 LPM (10 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
Cartridge Material	All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 18/16/13, SAE Class 4
Approx. Weight	.24 kg (.53 lbs.)
Cavity	3X (See BC Section for more details)



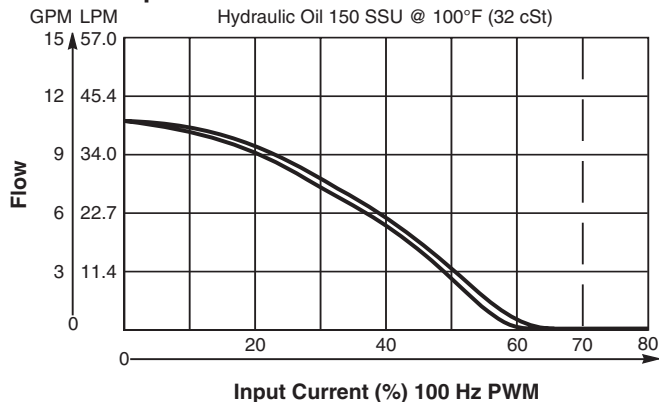
Note: Always connect Port (3) to Port (1) through .031" orifice. For FAPC101 only.

Performance Curves

Pressure Compensation of Regulated Flow

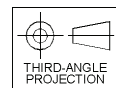
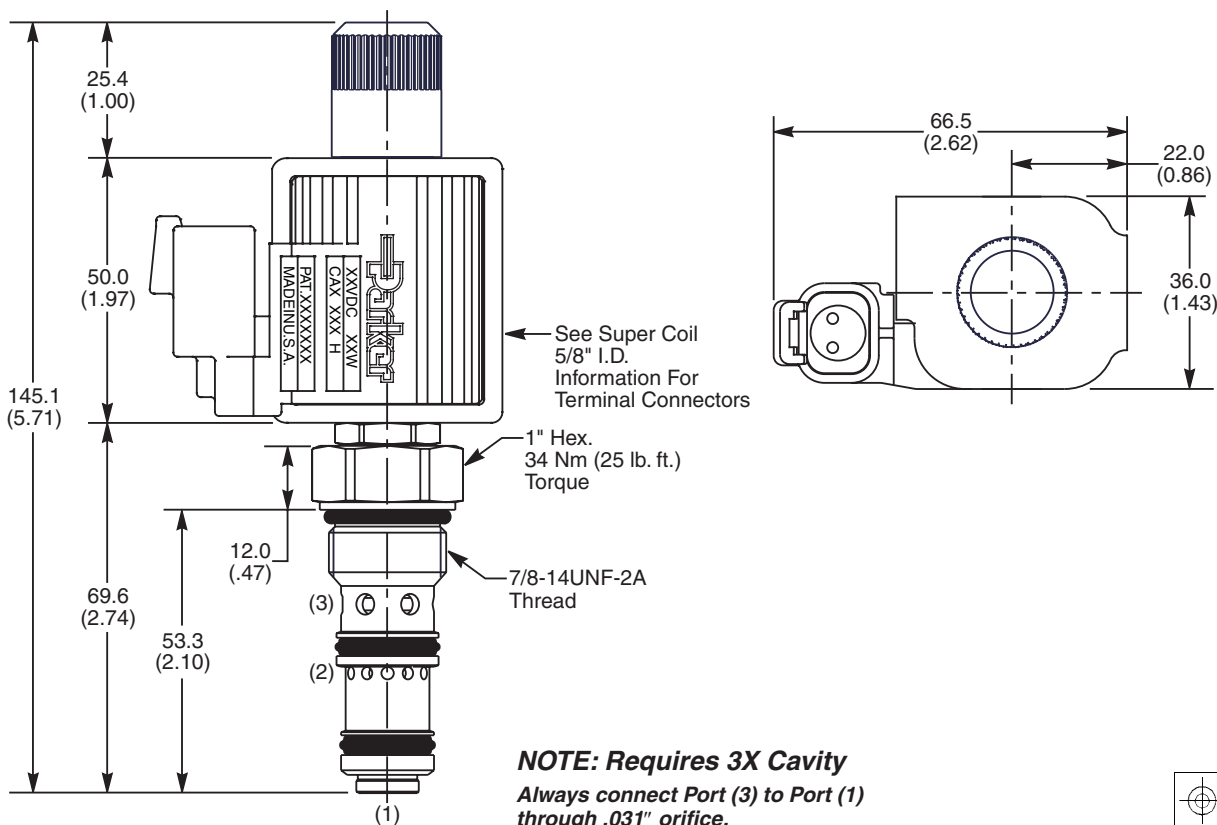


Flow vs. Input Current



Technical Information

Dimensions Millimeters (Inches)



Ordering Information

FAPC101 **N**

10 Size Proportional Valve Style Seals Coil Type Coil Voltage Coil Termination Body Material Port Size

Code	Style
N	Normally Open

Code	Coil Type
Omit	Without Coil
SS	Super Coil - 18 Watts

Code	Coil Termination
Omit	Without Coil
D	DIN Plug Face
A	Amp Jr. Timer*
S	Dual Spade*
W	Dual Screw*
L	Dual Lead Wire*
H	Molded Deutsch*
PF	Dual Lead Wire with Packard Female Weather Pack Connector 1201 5792*
PM	Dual Lead Wire with Packard Male Weather Pack Connector 1201 0973*

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3S)
N	Nitrile / Buna-N (Std.) (SK10-3XN)
V	Fluorocarbon / (SK10-3SV)

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC

Code	Port Size	Body Part No.
Omit	Cartridge Only	
8T	SAE-8	(B10-3X-*8T)

* Add "A" for aluminum, omit for steel. Body includes orifice and port connection.

See Super Coil 5/8" I.D. *DC Only



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2 Way, Normally Open, Proportional Poppet Valve with Pressure Compensation. For additional information see Technical Tips on pages PV1-PV6.

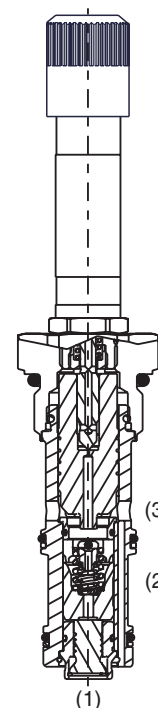
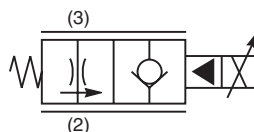
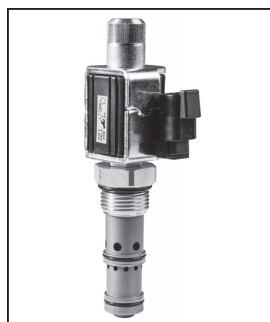
Features

- Low leakage poppet design with no dynamic seal to wear out on the compensator
- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- External surfaces plated
- Excellent low flow metering capability

Specifications

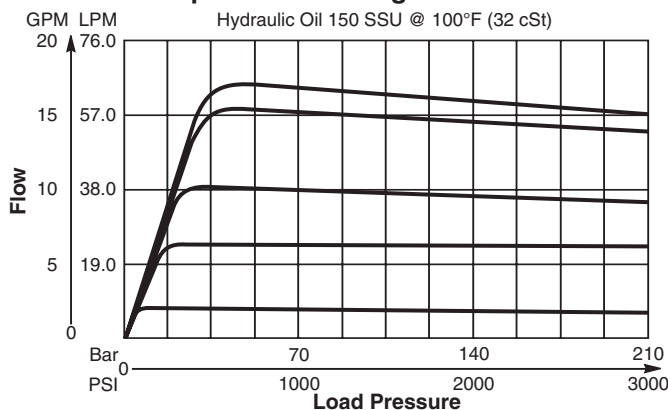
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

Rated Flow De-Energized at ΔP 34.5 Bar (500 PSI)	57 LPM (15 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
Cartridge Material	All operating parts hardened steel.
Operating Temp. Range/Seals	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 18/16/13, SAE Class 4
Approx. Weight	.36 kg (.79 lbs.)
Cavity	C12-3L (See BC Section for more details)

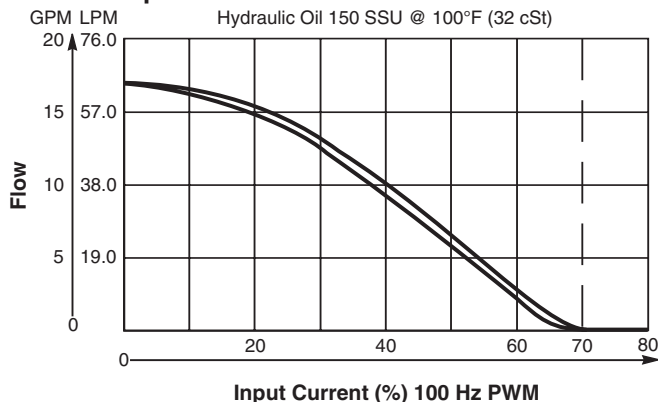


Performance Curves

Pressure Compensation of Regulated Flow

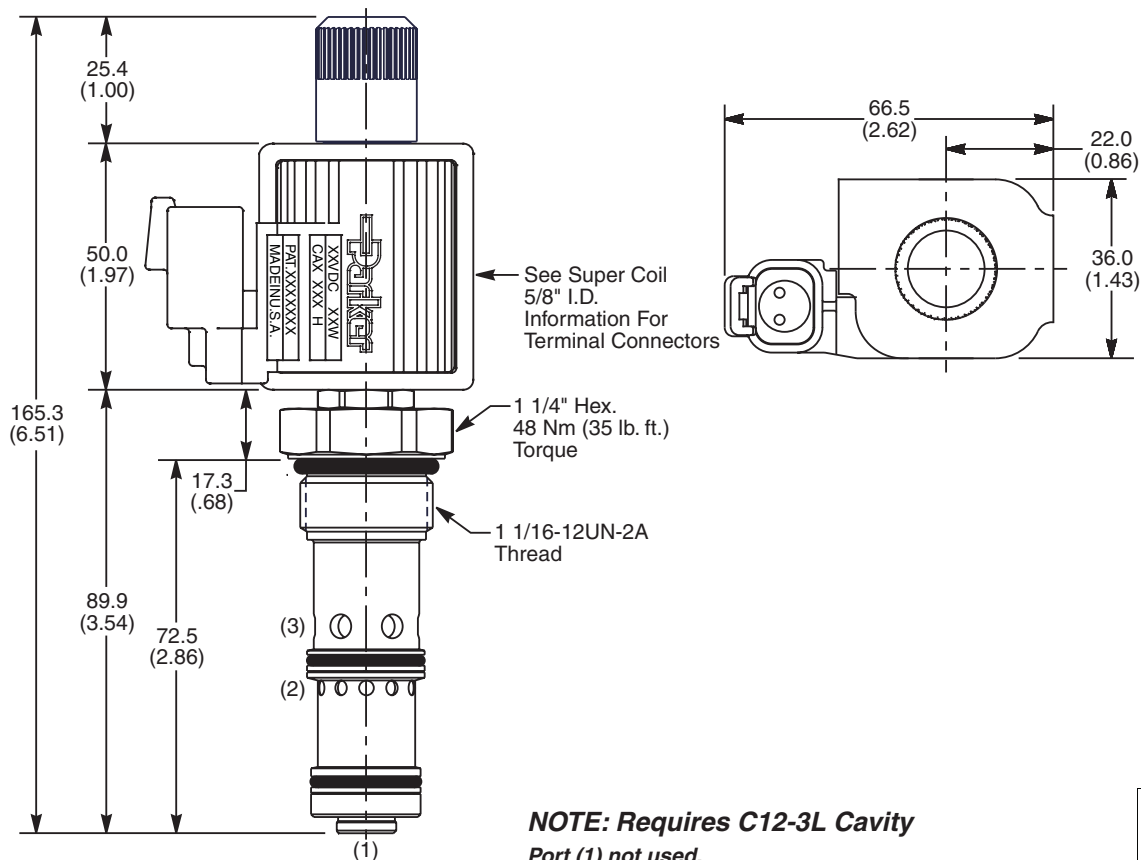


Flow vs. Input Current

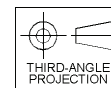


Technical Information

Dimensions Millimeters (Inches)



NOTE: Requires C12-3L Cavity
Port (1) not used.



Ordering Information

FAPC121 **N**

12 Size Proportional Valve Style Seals Coil Type Coil Voltage Coil Termination Body Material Port Size

Code	Style
N	Normally Open

Code	Coil Type
Omit	Without Coil
SS	Super Coil - 18 Watts

Code	Coil Termination
Omit	Without Coil
D	DIN Plug Face
A	Amp Jr. Timer*
S	Dual Spade*
W	Dual Screw*
L	Dual Lead Wire*
H	Molded Deutsch*
PF	Dual Lead Wire with Packard Female Weather Pack Connector 1201 5792*
PM	Dual Lead Wire with Packard Male Weather Pack Connector 1201 0973*

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
N	Nitrile / Buna-N (Std.) (SK12-3LN)
V	Fluorocarbon / (SK12-3LV)

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12T	SAE-12	(B12-3L-*12T)

* Add "A" for aluminum, omit for steel.
Plug Port (1) when using standard body.

See Super Coil 5/8" I.D.
*DC Only



- CV
Check Valves
- SH
Shuttle Valves
- LM
Load/Motor Controls
- FC
Flow Controls
- PC
Pressure Controls
- LE
Logic Elements
- DC
Directional Controls
- MV
Manual Valves
- SV
Solenoid Valves
- PV
Proportional Valves
- CE
Coils & Electronics
- BC
Bodies & Cavities
- TD
Technical Data

Technical Information

- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical Data

General Description

2 Way, Normally Open, Proportional Poppet Valve with Pressure Compensation. For additional information see Technical Tips on pages PV1-PV6.

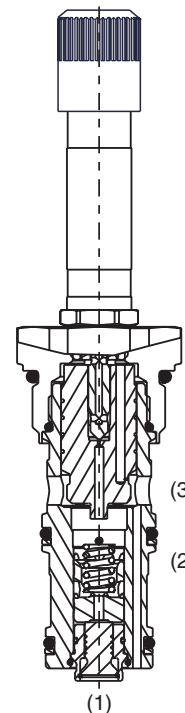
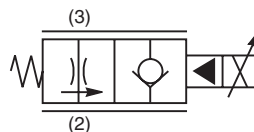
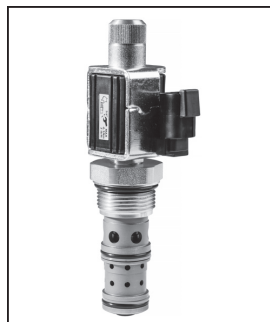
Features

- Low leakage poppet design with no dynamic seal to wear out on the compensator
- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- Industry common cavity
- External surfaces plated
- Excellent low flow metering capability

Specifications

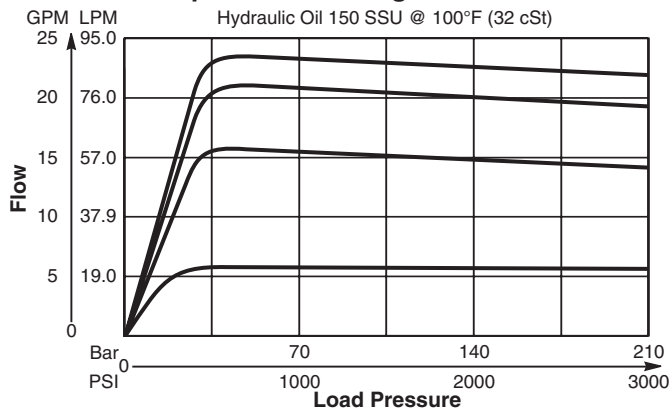
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

Rated Flow De-Energized at ΔP 34.5 Bar (500 PSI)	83 LPM (22 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
Cartridge Material	All operating parts hardened steel.
Operating Temp. Range/Seals	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 18/16/13, SAE Class 4
Approx. Weight	.49 kg (1.09 lbs.)
Cavity	C16-3 (See BC Section for more details)

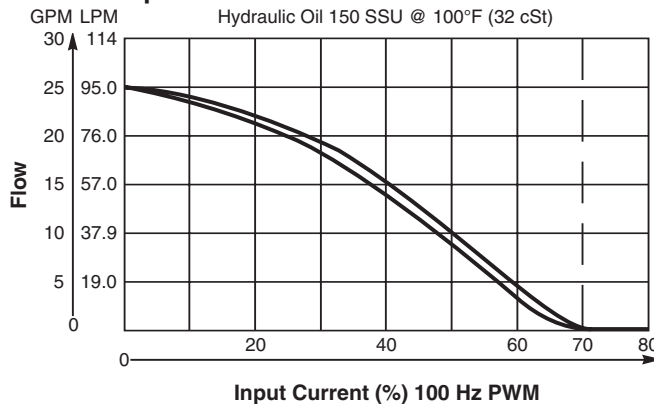


Performance Curves

Pressure Compensation of Regulated Flow



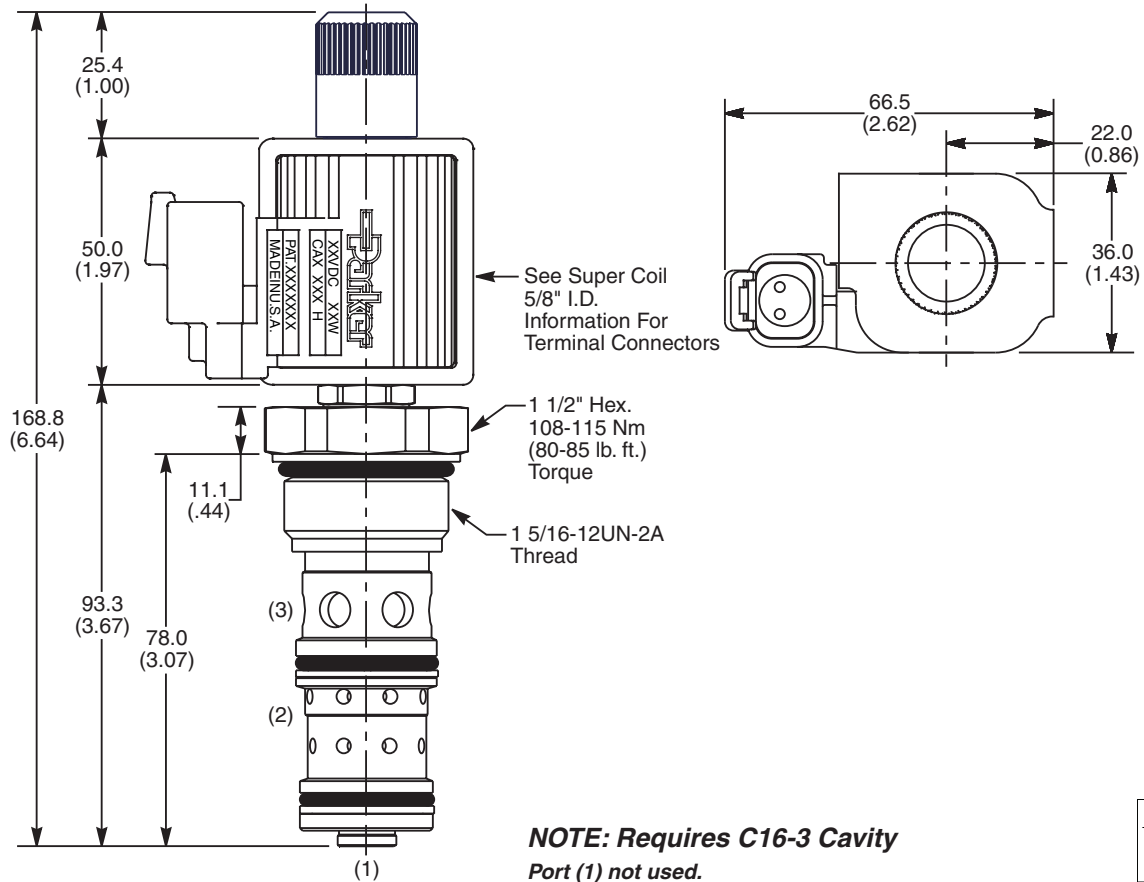
Flow vs. Input Current



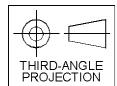
Technical Information

Pressure Comp. Proportional Poppet Valve Series FAPC161N

Dimensions Millimeters (Inches)



NOTE: Requires C16-3 Cavity
Port (1) not used.



Ordering Information

FAPC161 **N**

16 Size Proportional Valve Style Seals Coil Type Coil Voltage Coil Termination Body Material Port Size

Code	Style
N	Normally Open

Code	Coil Type
Omit	Without Coil
SS	Super Coil - 18 Watts

Code	Coil Termination
Omit	Without Coil
D	DIN Plug Face
A	Amp Jr. Timer*
S	Dual Spade*
W	Dual Screw*
L	Dual Lead Wire*
H	Molded Deutsch*
PF	Dual Lead Wire with Packard Female Weather Pack Connector 1201 5792*
PM	Dual Lead Wire with Packard Male Weather Pack Connector 1201 0973*

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
N	Nitrile / Buna-N (Std.) (SK16-3)
V	Fluorocarbon / (SK16-3V)

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC

Code	Port Size	Body Part No.
Omit	Cartridge Only	
16T	SAE-16	(B16-3-*16T)

* Add "A" for aluminum, omit for steel.
Plug Port (1) when using standard body.

See Super Coil 5/8" I.D.
*DC Only



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Notes

Large grid area for notes, consisting of a 25x25 grid of cells.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

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Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

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