

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.

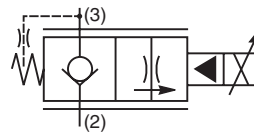
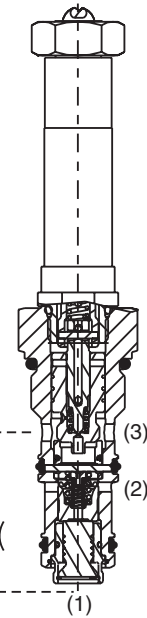
Features

- 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)

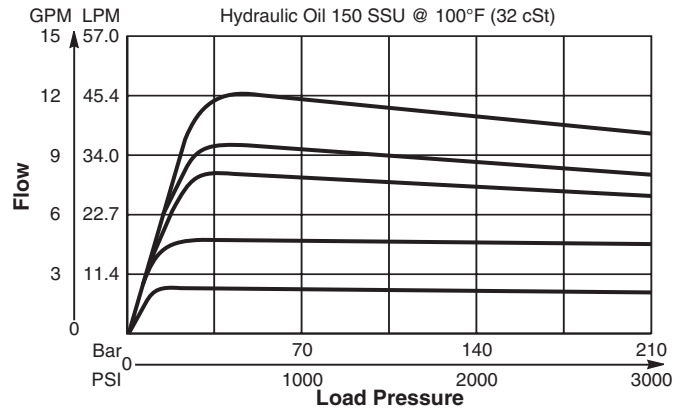
Rated Flow @ 70% of Full Current at ΔP 34.5 Bar (500 PSI)	38 LPM (10 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM 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)



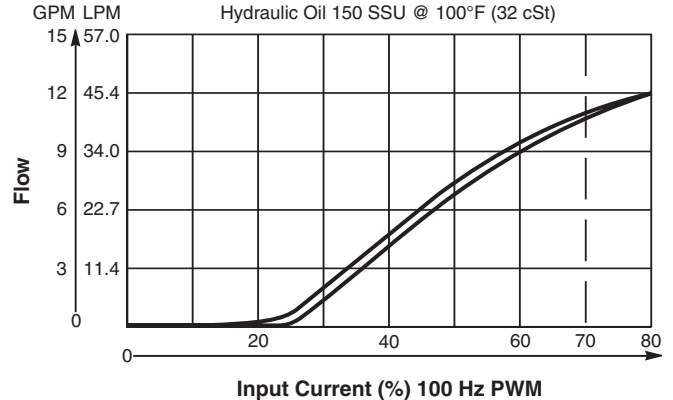
Note: Always connect Port (3) to Port (1) through .031" orifice. For FAPC101 only.

Performance Curves

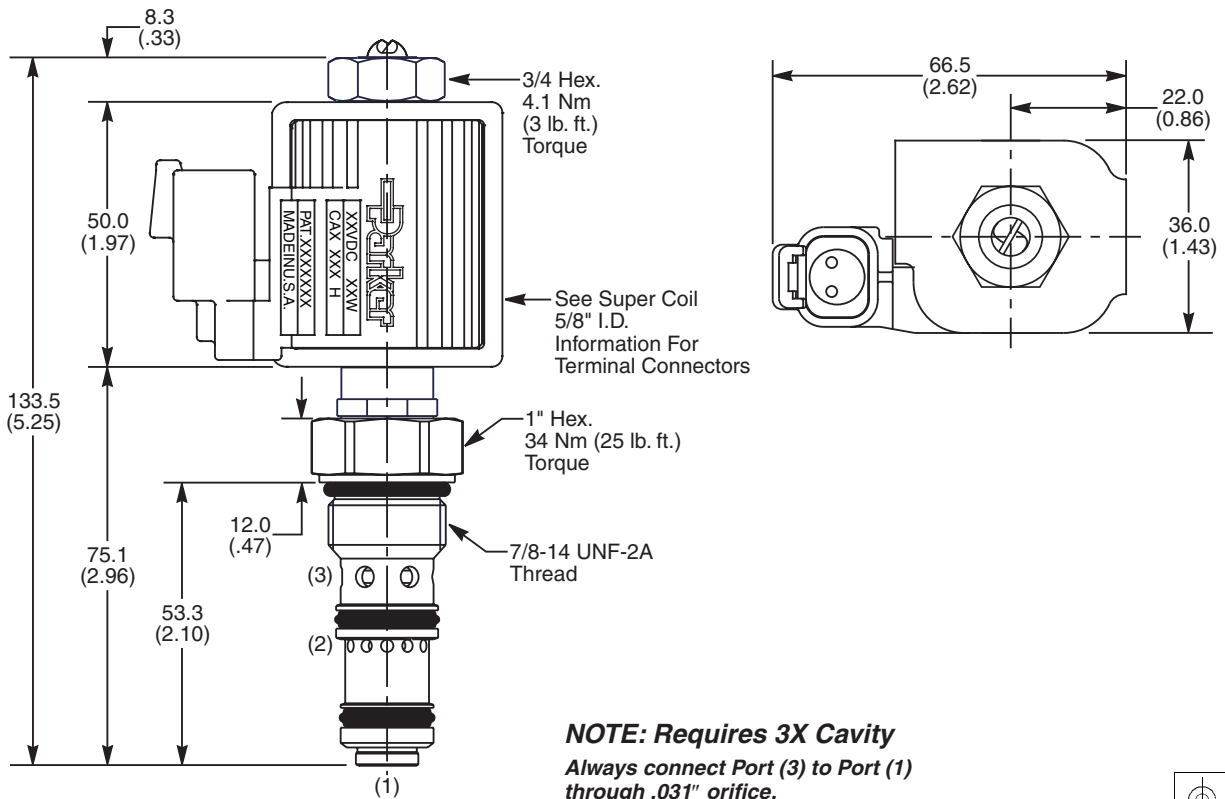
Pressure Compensation of Regulated Flow



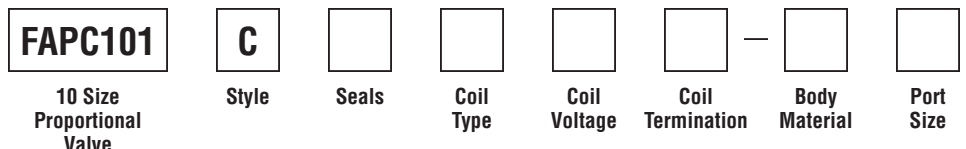
Flow vs. Input Current



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) (SK10-3XN)
N	Nitrile / Buna-N (Std.) (SK10-3XN)
V	Fluorocarbon / (SK10-3XV)

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



- 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
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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.

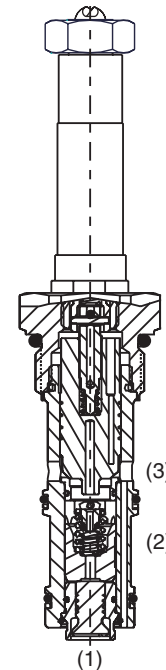
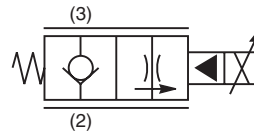
Features

- 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.
- External surfaces plated
- Excellent low flow metering capability

Specifications

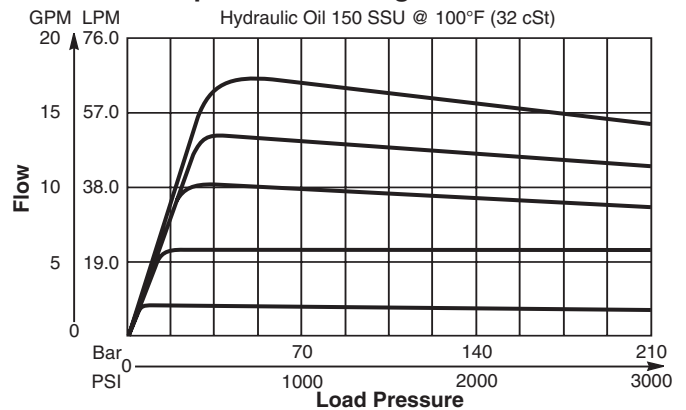
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

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)

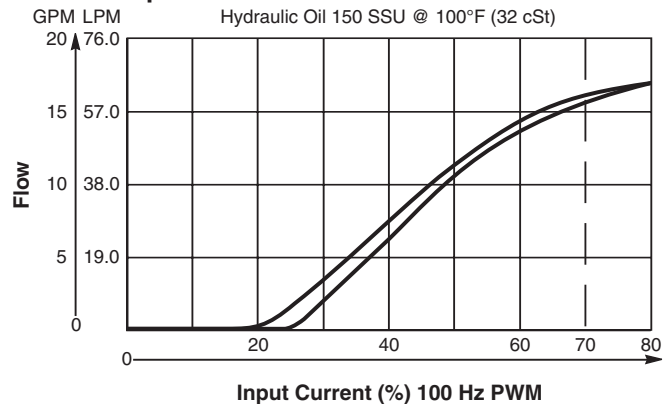


Performance Curves

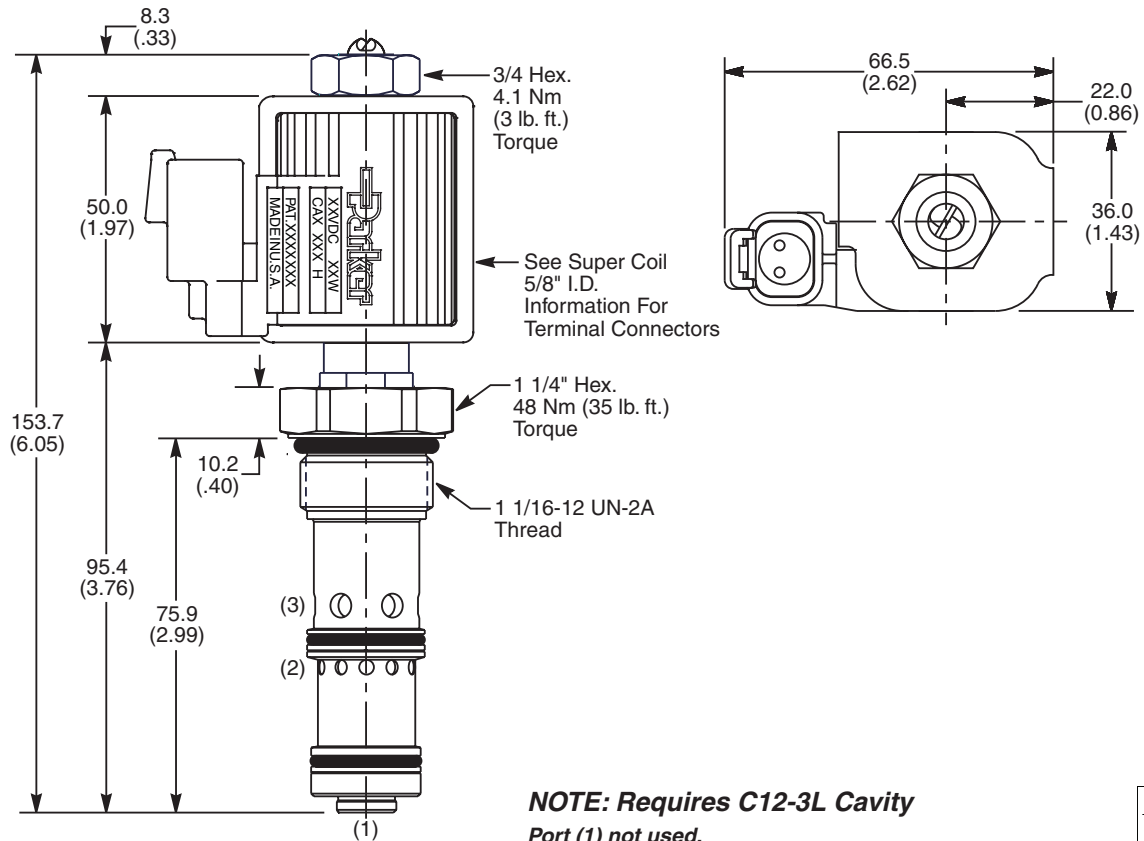
Pressure Compensation of Regulated Flow



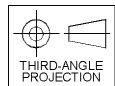
Flow vs. Input Current



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.

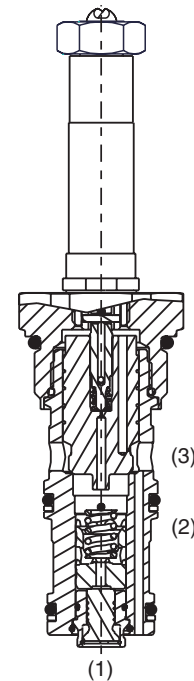
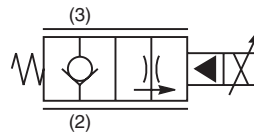
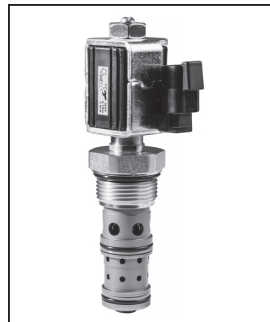
Features

- 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

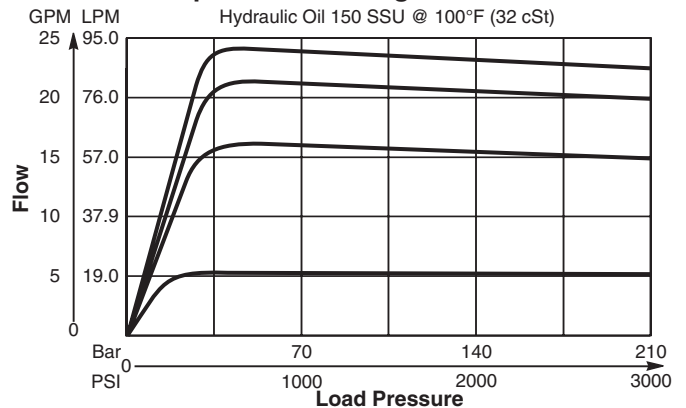
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

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)

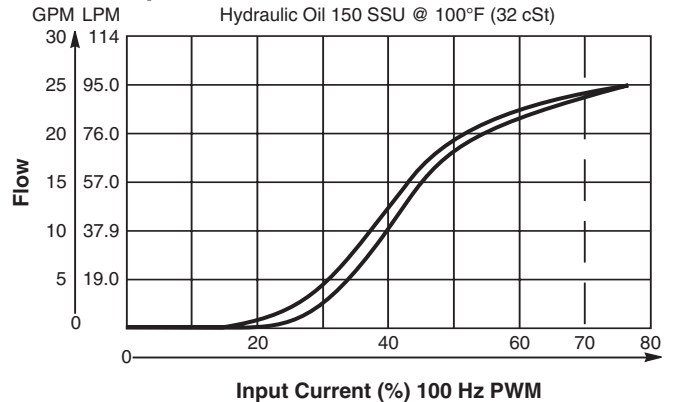


Performance Curves

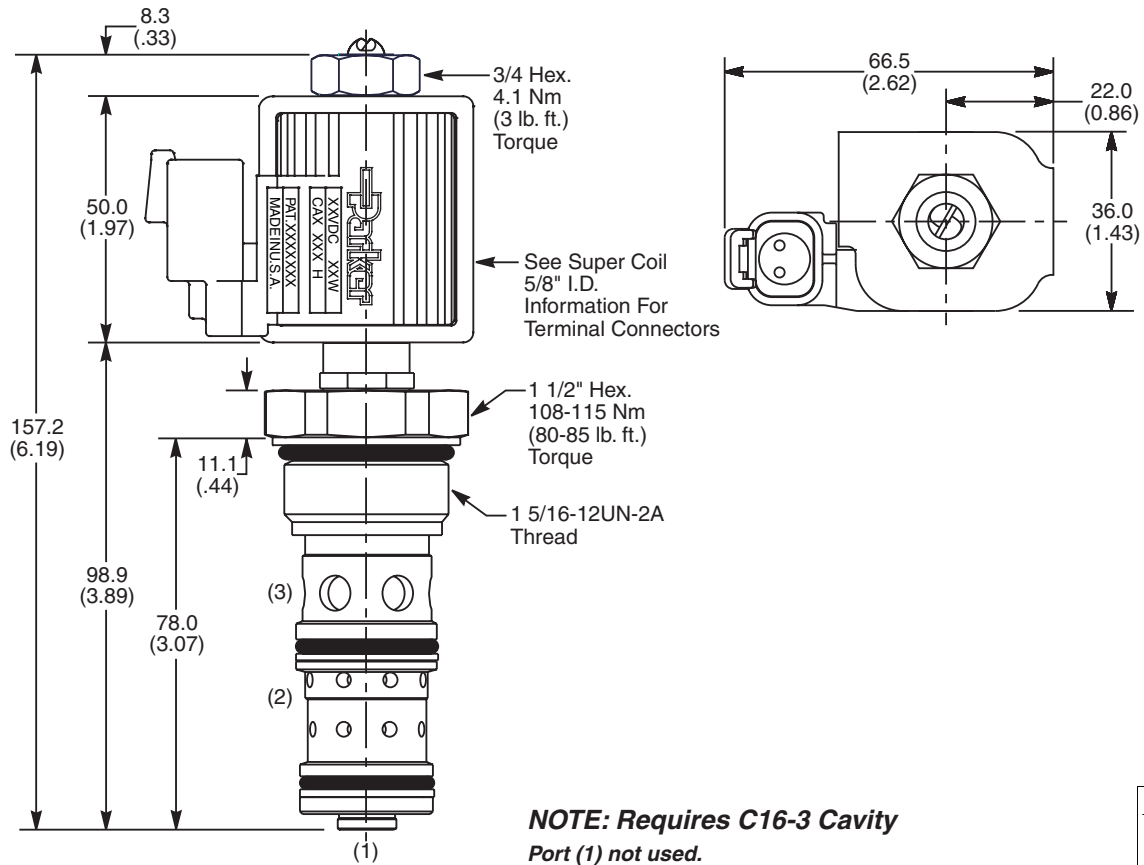
Pressure Compensation of Regulated Flow



Flow vs. Input Current



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.

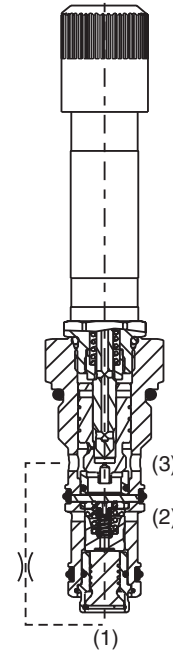
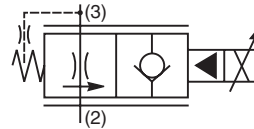
Features

- 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)

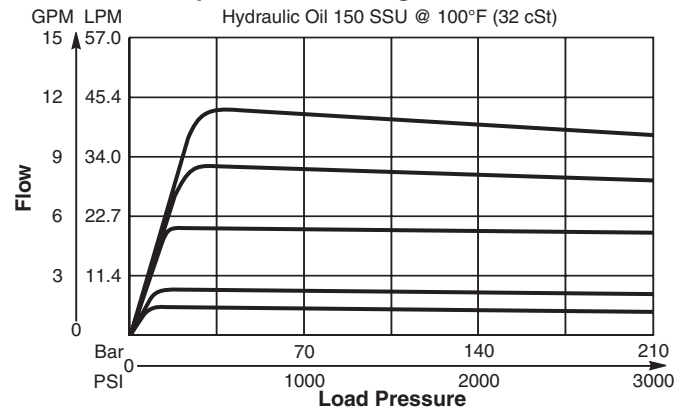
Rated Flow De-Energized at ΔP 34.5 Bar (500 PSI)	38 LPM (10 GPM)
Maximum Input Pressure at Port 2	210 Bar (3000 PSI)
Minimum Pressure Differential	34 Bar (500 PSI)
Maximum Internal Leakage	5 drops/min. (.33 cc/min.) @ 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<10% NOTE: Current regulated PWM recommended
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)



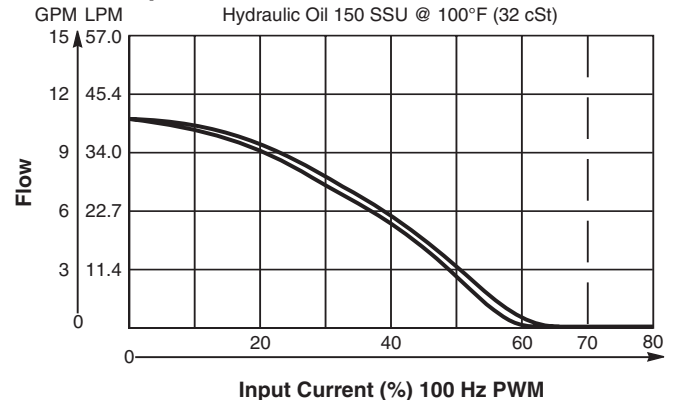
Note: Always connect Port (3) to Port (1) through .031" orifice. For FAPC101 only.

Performance Curves

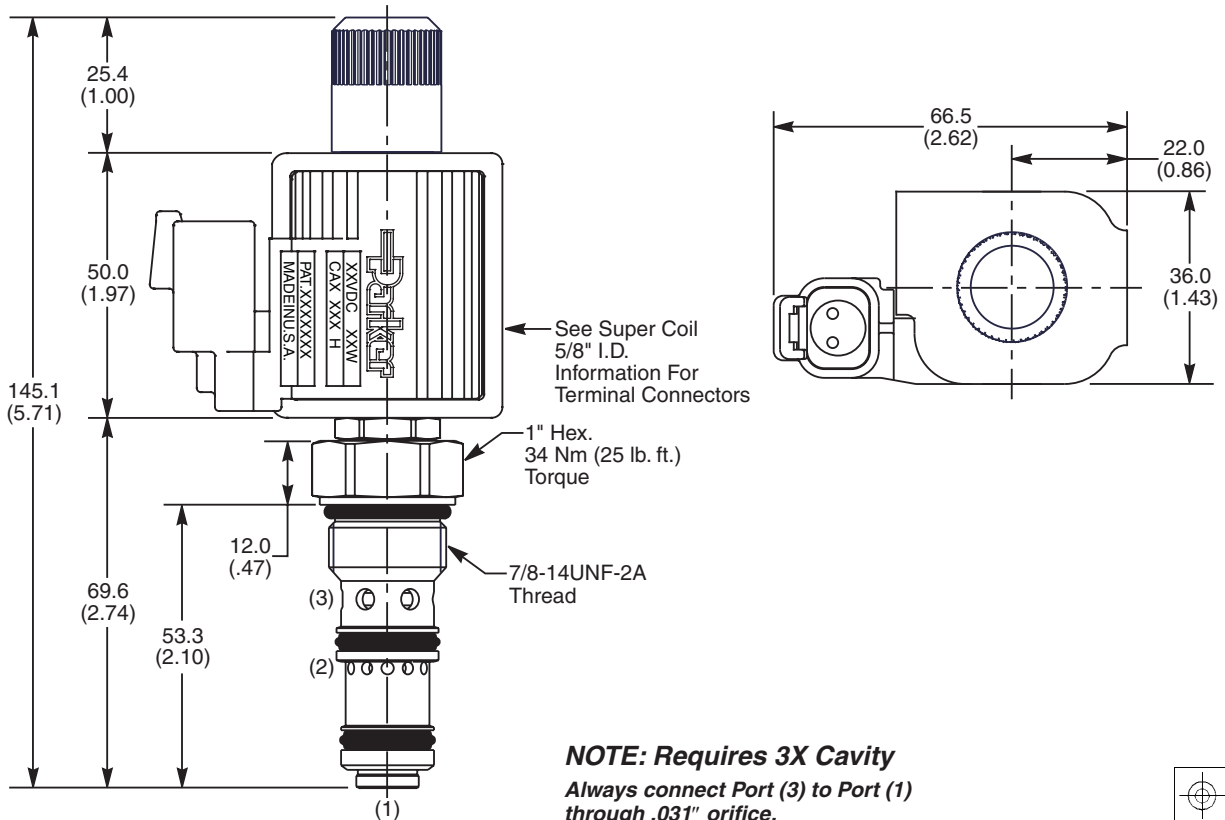
Pressure Compensation of Regulated Flow



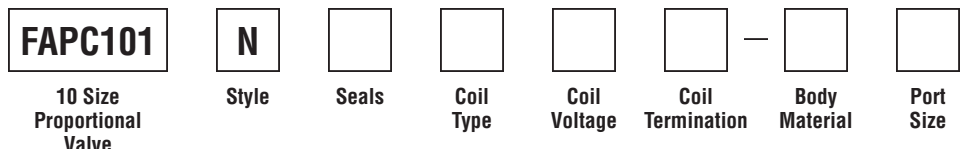
Flow vs. Input Current



Dimensions Millimeters (Inches)



Ordering Information



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) (SK10-3XN)
N	Nitrile / Buna-N (Std.) (SK10-3XN)
V	Fluorocarbon / (SK10-3XV)

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.

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 *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.

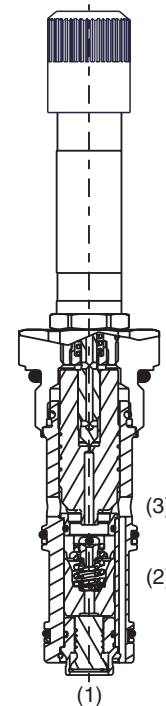
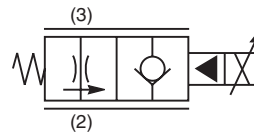
Features

- 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

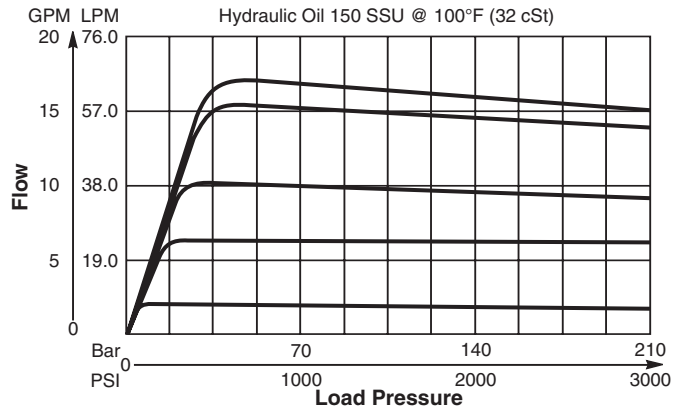
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

Rated Flow De-Energized at ΔP 34.5 Bar (500 PSI)	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)
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Approx. Weight	.36 kg (.79 lbs.)
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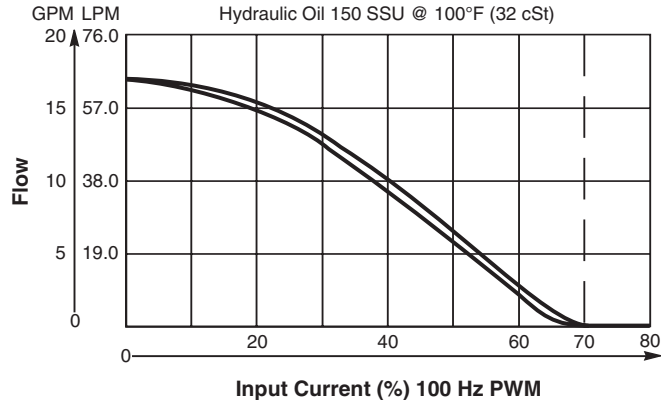


Performance Curves

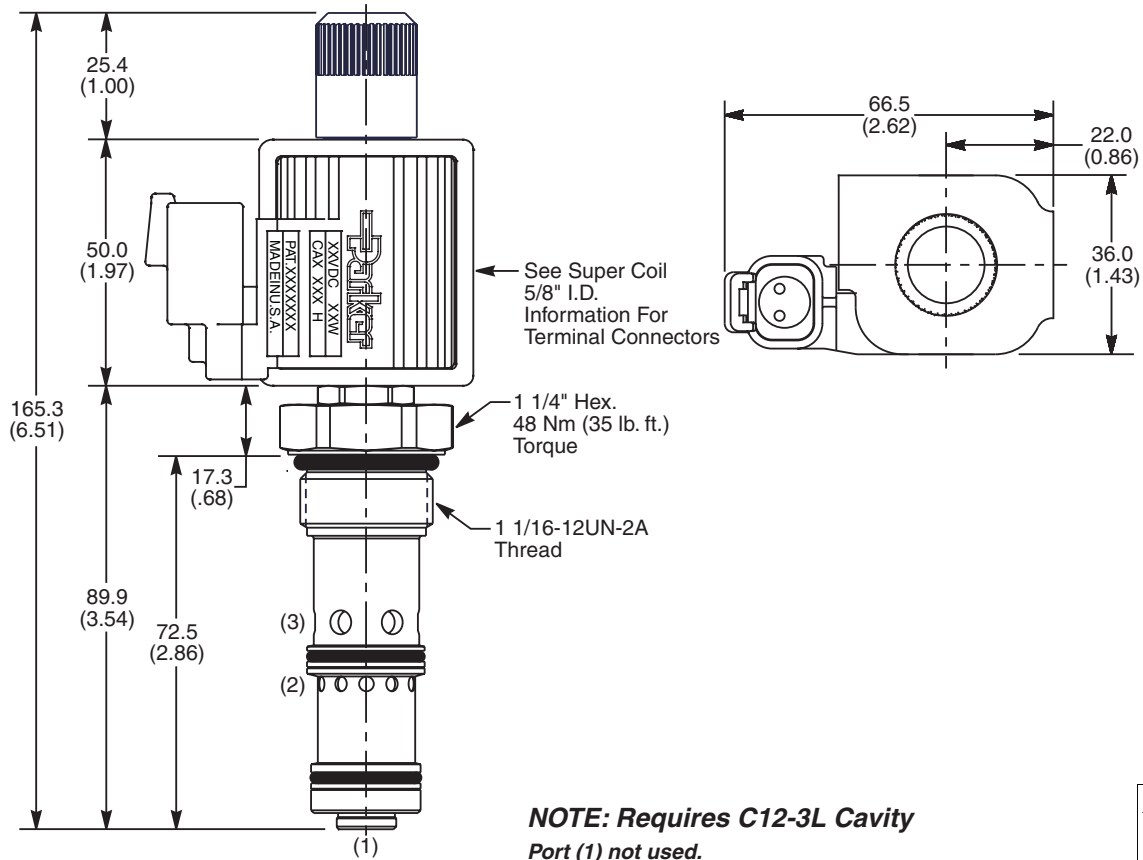
Pressure Compensation of Regulated Flow



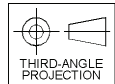
Flow vs. Input Current



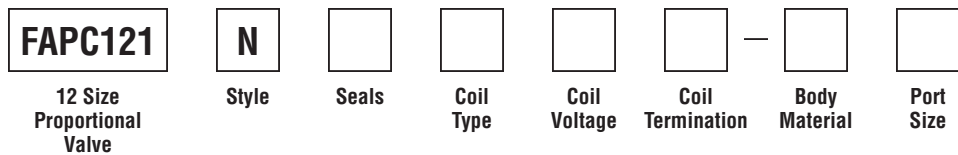
Dimensions Millimeters (Inches)



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



Ordering Information



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*
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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.
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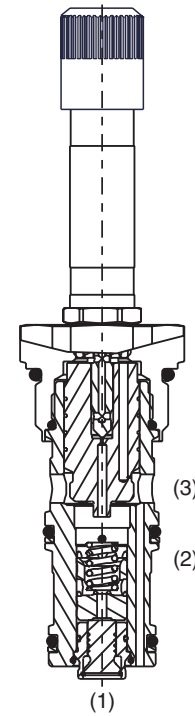
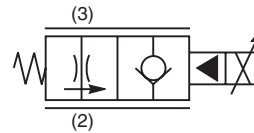
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- Adjusted at factory for low variation
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.
- Industry common cavity
- External surfaces plated
- Excellent low flow metering capability

Specifications

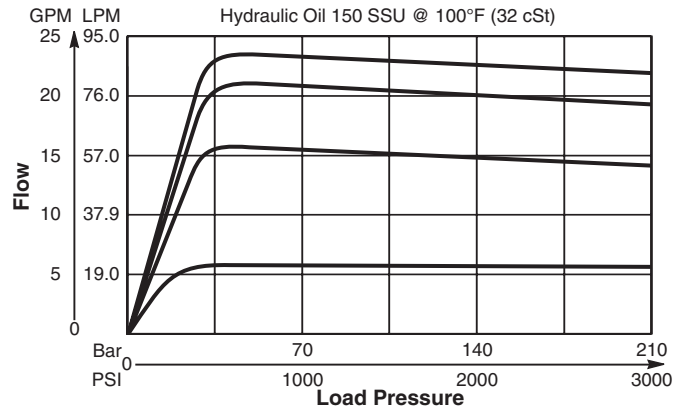
All performance data with CAS coil.
Maximum current, 70% recommended.
Hydraulic oil 150 SSU @ 40°C (32 cSt)

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)

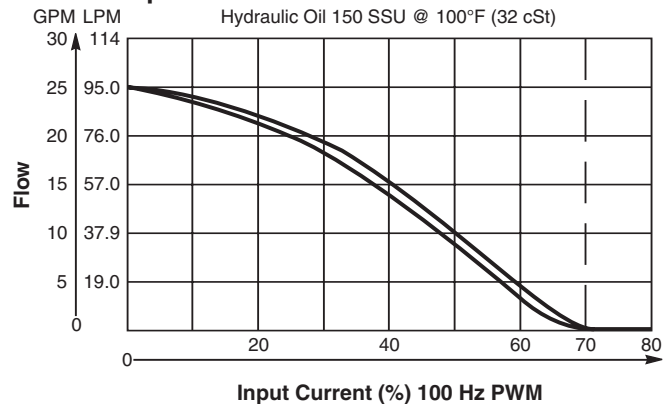


Performance Curves

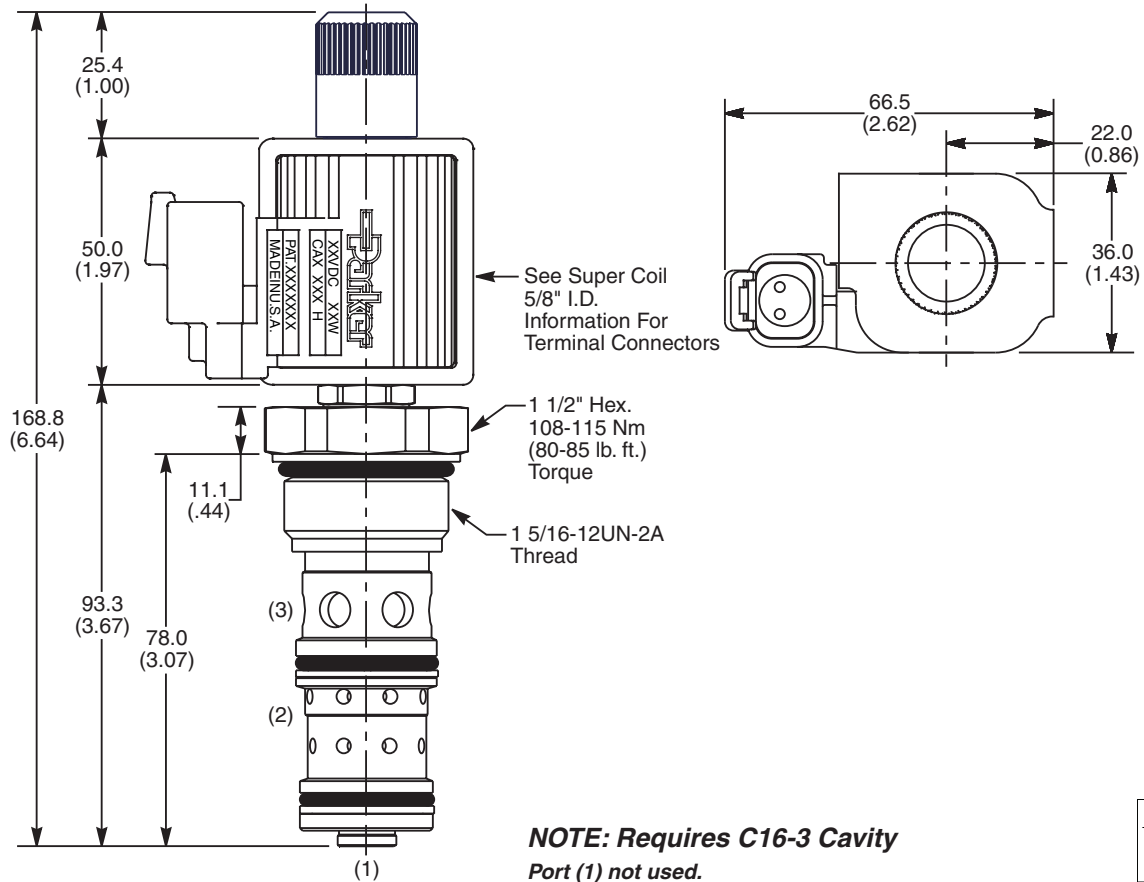
Pressure Compensation of Regulated Flow



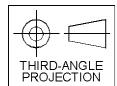
Flow vs. Input Current



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