



PA24-27 — Submittal/Technical Data

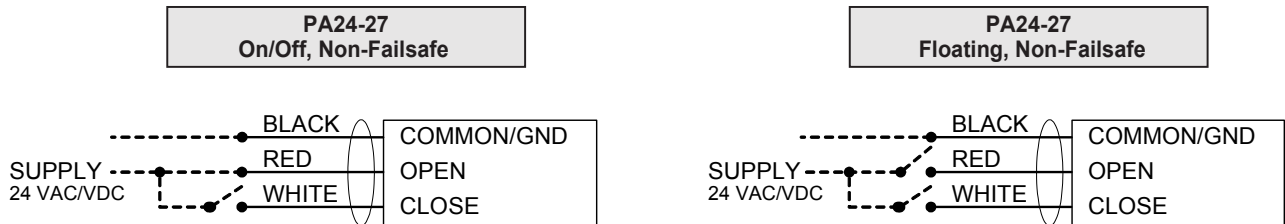
04/05/20

27 lb-force — Non-Fail Safe — On/Off and Floating

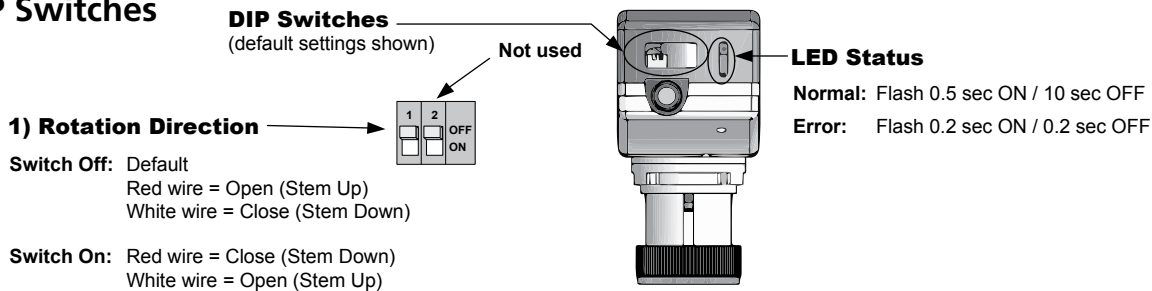
Specifications: For Simple Set PIC Valve sizes 1/2" to 1-1/4"

Power Supply	Operating Voltage	22 to 26 AC/DC
	Power Consumption	5 VA
Control Signal/Input Signal		Digital, 2 positions or 3 point floating
Input Impedance		4.7 K
Run Time		120 Seconds
Direction		Reversible. Default - Up to Open
Stall Protection		Auto Shutoff for end of travel and jammed/stuck
Enclosure Rating		IP54 (Equivalent to NEMA 3R) - Not intended for outdoor use without additional protection.
Manual Override		Yes
Ambient Conditions		Ambient Temperature
	Operating	36°F to 122°F (2°C to 50°C)
	Media Temperature	36°F to 248°F (2°C to 120°C)
	Storage	-22 to 122°F (-30 to 50°C)
	Humidity Rating	5 to 95% RH Non Condensing
Connection		3-wire halogen free cable 18 AWG (0.8 mm ²), 3.2 feet (1M) long
Life Cycle		30,000
Audible Noise Rating		>35 dBA
Agency Certification		cULus, cCSAus, CE
Dimensions		(L) 4.09" x (W) 2.08" x (H) 3.62
Weight		0.9 lb. (0.4 kg)

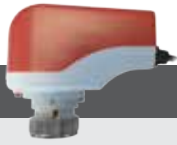
Wiring: (Cable)



DIP Switches



NOTE: For additional operating information consult PA24-27 Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.



PA24-27-FS — Submittal/Technical Data

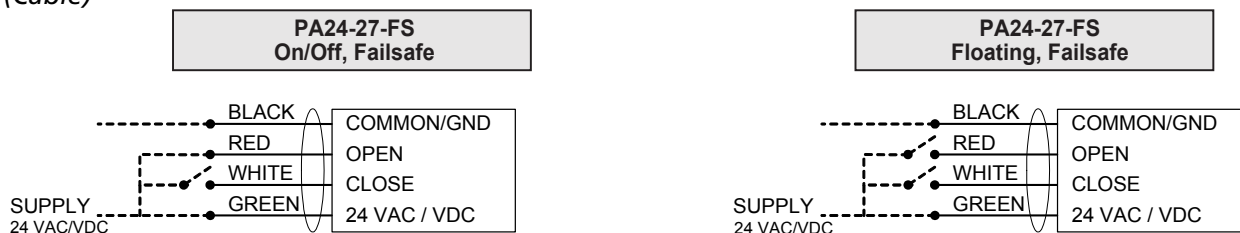
04/05/20

27 lb-force — Fail Safe — On/Off and Floating

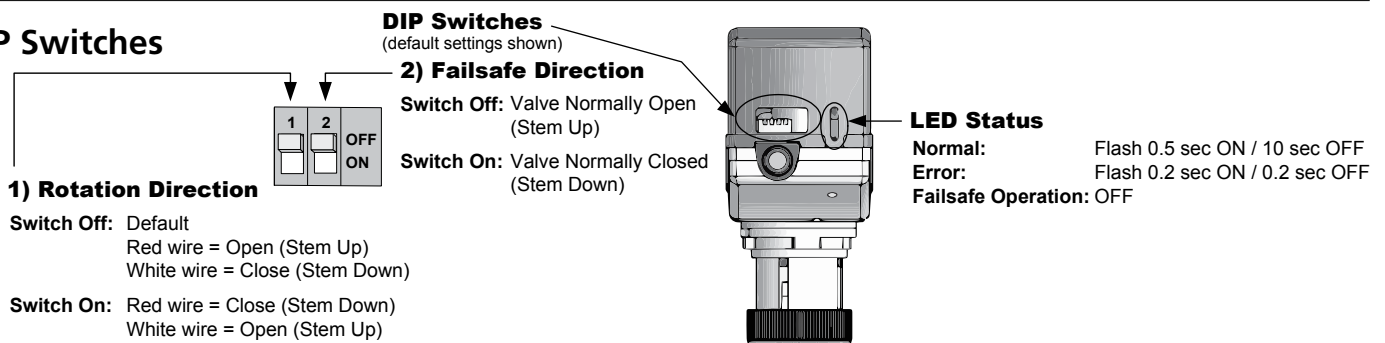
Specifications: For Simple Set PIC Valve sizes 1/2" to 1-1/4"

Power Supply	Operating Voltage	22 to 26 AC/DC
	Power Consumption	10 VA
Control Signal/Input Signal		Digital, 2 positions or 3 point floating
Input Impedance		4.7 K
Run Time		120 Seconds
Fail Safe Runtime		60 Seconds
Fail Safe Function		Electronic - Enerdrive ¹
Direction		Reversible. Default - Up to Open
Stall Protection		Auto Shutoff for end of travel and jammed/stuck
Enclosure Rating		IP54 (Equivalent to NEMA 3R) - Not intended for outdoor use without additional protection.
Manual Override		Yes
Ambient Conditions		Ambient Temperature
	Operating	36°F to 122°F (2°C to 50°C)
	Media Temperature	36°F to 248°F (2°C to 120°C)
	Storage	-22 to 122°F (-30 to 50°C)
	Humidity Rating	5 to 95% RH Non Condensing
Connection		4-wire halogen free cable 18 AWG (0.8 mm ²), 3.2 feet (1M) long
Life Cycle		30,000
Audible Noise Rating		>35 dBA
Agency Certification		cULus, cCSAus, CE
Dimensions		(L) 4.09" x (W) 2.08" x (H) 3.62
Weight		0.9 lb. (0.4 kg)

Wiring: (Cable)



DIP Switches



NOTE: ¹ The Enerdrive system is a patented method of storing energy (using super capacitors) that is later used to drive the actuator to it failsafe position during a power failure. For additional operating information consult PA24-27-FS Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.



PAM24-27 — Submittal/Technical Data

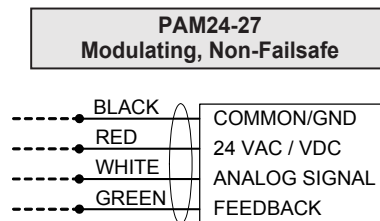
04/05/20

27 lb-force — Non-Fail Safe — Modulating

Specifications: For Simple Set PIC Valve sizes 1/2" to 1-1/4"

Power Supply	Operating Voltage	22 to 26 AC/DC
	Power Consumption	5 VA
Control Signal/Input Signal		Analog, 0-10VDC or 2-10VDC; 4-20mA with external 500Ω resistor
Feedback Signal		0-10VDC or 2-10VDC
Input Impedance		10.0 K
Run Time		120 Seconds
Direction		Reversible. Default - Up to Open
Stall Protection		Auto Shutoff for end of travel and jammed/stuck
Auto Stroke		Yes
Enclosure Rating		IP54 (Equivalent to NEMA 3R) - Not intended for outdoor use without additional protection.
Manual Override		Yes
Ambient Conditions		Ambient Temperature
	Operating	36°F to 122°F (2°C to 50°C)
	Media Temperature	36°F to 248°F (2°C to 120°C)
	Storage	-22 to 122°F (-30 to 50°C)
	Humidity Rating	5 to 95% RH Non Condensing
Connection		4-wire halogen free cable 18 AWG (0.8 mm ²), 3.2 feet (1M) long
Life Cycle		30,000
Audible Noise Rating		>35 dBA
Agency Certification		cULus, cCSAus, CE
Dimensions		(L) 4.09" x (W) 2.08" x (H) 3.62
Weight		0.9 lb. (0.4 kg)

Wiring: (Cable)



DIP Switches

1) Rotation Direction

- Switch Off:** Default
Valve Open
(Stem Up) - (0 VDC)
- Switch On:** Valve Closed
(Stem Down) - (0 VDC)

2) Anti-Stick System

- Switch Off:** Deactivated
- Switch On:** Activated

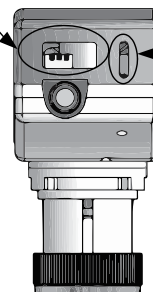
DIP Switches

(default settings shown)



3) Input Analog -

- Signal & Feedback
- Switch Off:** 2-10 VDC
- Switch On:** 0-10 VDC



LED Status

- Normal:** Flash 0.5 sec ON / 10 sec OFF
- Error:** Flash 0.2 sec ON / 0.2 sec OFF
- Auto stroke:** Continuous ON

NOTE: For additional operating information consult PAM24-27 Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.



PAM24-27-FS — Submittal/Technical Data

04/05/20

27 lb-force — Fail Safe — Modulating

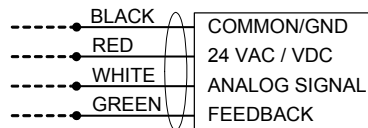
Specifications: For Simple Set PIC Valve sizes 1/2" to 1-1/4"

Power Supply	Operating Voltage	22 to 26 AC/DC
	Power Consumption	10 VA
Control Signal/Input Signal		Analog, 0-10VDC or 2-10VDC; 4-20mA with external 500Ω resistor
Feedback Signal		0-10VDC or 2-10VDC
Input Impedance		100 K
Run Time		120 Seconds
Fail Safe Runtime		60 Seconds
Fail Safe Function		Electronic - Enerdrive ¹
Direction		Reversible. Default - Up to Open
Stall Protection		Auto Shutoff for end of travel and jammed/stuck
Auto Stroke		Yes
Enclosure Rating		IP54 (Equivalent to NEMA 3R) - Not intended for outdoor use without additional protection.
Manual Override		Yes
Ambient Conditions		Ambient Temperature
	Operating	36°F to 122°F (2°C to 50°C)
	Media Temperature	36°F to 248°F (2°C to 120°C)
	Storage	-22 to 122°F (-30 to 50°C)
	Humidity Rating	5 to 95% RH Non Condensing
Connection		4-wire halogen free cable 18 AWG (0.8 mm ²), 3.2 feet (1M) long)
Life Cycle		30,000
Audible Noise Rating		>30dBA
Agency Certification		cULus, cCSAus, CE
Dimensions		(L) 4.09" x (W) 2.08" x (H) 4.18
Weight		0.9 lb. (0.4 kg)

Wiring: (Cable)

PAM24-27-FS
Modulating, Failsafe

FAILSAFE CONTROLLED BY DIP SWITCHES



DIP Switches

DIP Switches
(default settings shown)

1) Rotation Direction

Switch Off: Default
Valve Open
(Stem Up) - (0VDC)
Switch On: Valve Closed
(Stem Down) - (0VDC)

2) Anti-Stick System

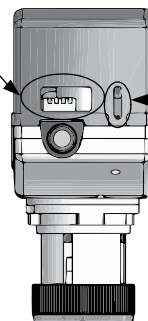
Switch Off: Deactivated
Switch On: Activated

4) Failsafe Direction

Switch Off: Valve Normally Open
(Stem Up)
Switch On: Valve Normally Closed
(Stem Down)

3) Input Analog -

Signal & Feedback
Switch Off: 2-10 VDC
Switch On: 0-10 VDC



LED Status

Normal: Flash 0.5 sec ON / 10 sec OFF
 Error: Flash 0.2 sec ON / 0.2 sec OFF
 Auto stroke: Continuous ON
 Failsafe charge: Continuous ON
 Failsafe operation: OFF

NOTE: ¹The Enerdrive system is a patented method of storing energy (using super capacitors) that is later used to drive the actuator to its failsafe position during a power failure. For additional operating information consult PAM24-27-FS Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.



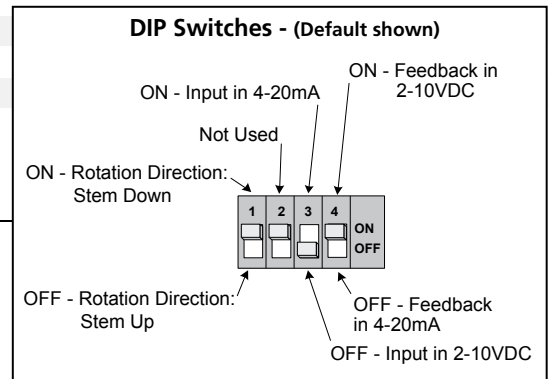
PAM24-100 — Submittal/Technical Data

04/21/20

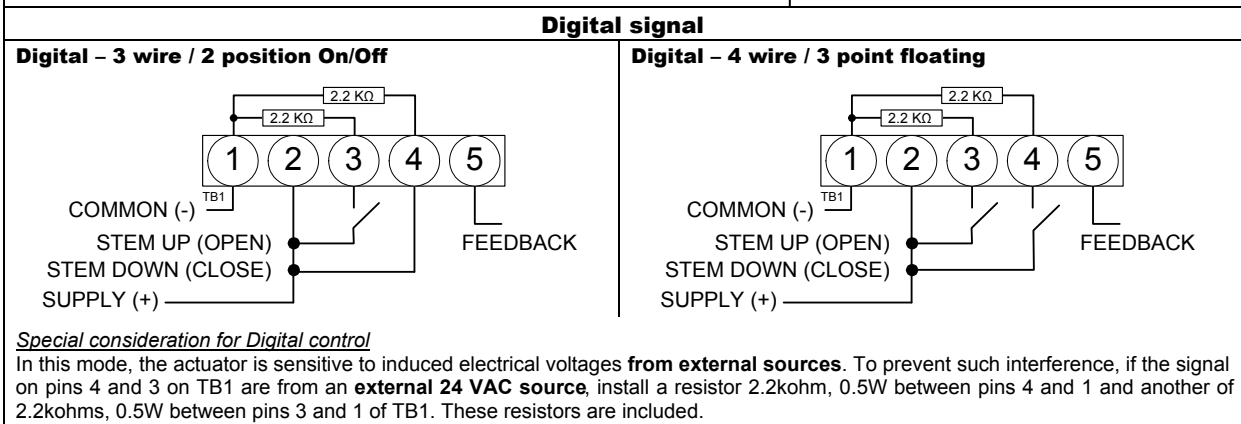
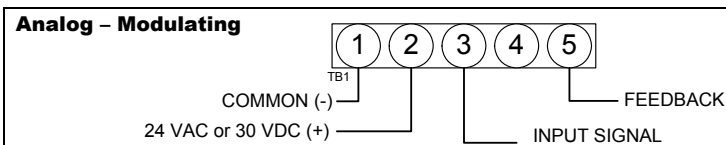
100 lb-force — Non-Fail Safe — On/Off, Floating & Modulating

Specifications: For Simple Set PIC Valve sizes 1-1/2" to 2"

Power Supply	Operating Voltage	22 to 26VAC / 28 to 32 VDC
	Power Consumption	6 VA
Control Signal		2 Position On/Off (Digital-Pulse Width Modulation), 3 Point Floating, Modulating (Analog), 2-10VDC; 4-20mA
Feedback Signal		4 to 20 mA or 2 to 10 VDC adjustable (factory set 2-10 VDC)
Input Impedance		100 K
Run Time		90 Seconds
Force		100 lb. [450 N] at rated voltage
Direction		Reversible, Up to Open - Default
Stall Protection		Auto Shutoff for end of travel and jammed/stuck
Auto Stroke		Yes
Enclosure Rating		NEMA Type 2 - Not intended for outdoor use without additional protection.
Manual Override		Yes
Ambient Conditions	Operating	0°F to 122°F (-18°C to 50°C)
	Storage	-22° to 122°F (-30° to 50°C)
	Humidity Rating	5 to 95% RH Non Condensing
Connection		Terminal Connection. Use 18AWG [0.8mm ²] minimum
Life Cycle		60,000
Audible Noise Rating		<35 dBA
Agency Certification		cULus, cCSAus, CE
Dimensions		(L) 4.80" x (W) 3.60" x (H) 6.93
Weight		2.0 lb. (0.9 kg)



Wiring: (Terminal)



NOTE: For additional operating information consult PAM24-100 Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.



PAM24-100-FS — Submittal/Technical Data

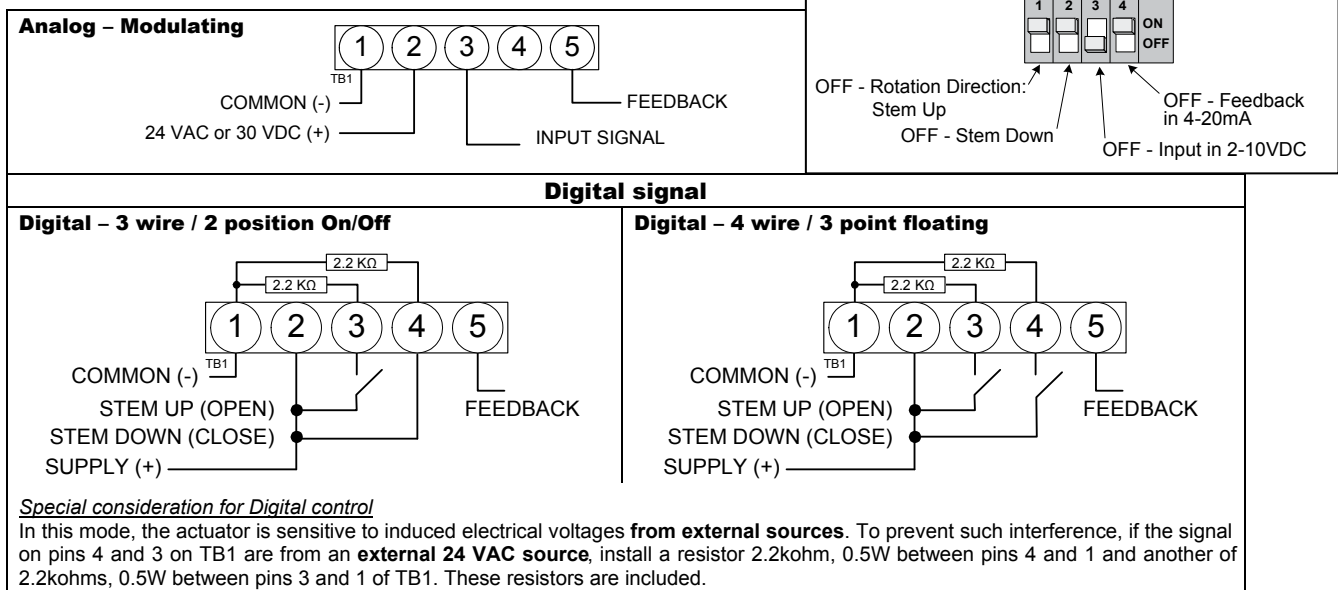
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100 lb-force — Fail Safe — On/Off, Floating & Modulating

Specifications: For Simple Set PIC Valve sizes 1-1/2" to 2"

Power Supply	Operating Voltage	22 to 26VAC / 28 to 32 VDC
	Power Consumption	6VA, 20VA Start Up
Control Signal		2 Position On/Off (Digital-Pulse Width Modulation), 3 Point Floating, Modulating (Analog), 2-10VDC; 4-20mA
Feedback Signal		4 to 20 mA or 2 to 10 VDC adjustable (factory set 2-10 VDC)
Input Impedance		100 K
Run Time		90 Seconds
Failsafe Function		Electronic - Enerdrive ¹
Force		100 lb. [450 N] at rated voltage
Direction		Reversible, Up to Open - Default
Stall Protection		Auto Shutoff for end of travel and jammed/stuck
Auto Stroke		Yes
Enclosure Rating		NEMA Type 2 - Not intended for outdoor use without additional protection.
Manual Override		Yes
Ambient Conditions	Operating	0°F to 122°F (-18°C to 50°C)
	Storage	-22° to 122°F (-30° to 50°C)
	Humidity Rating	5 to 95% RH Non Condensing
Connection		Terminal Connection. Use 18AWG [0.8mm ²] minimum
Life Cycle		60,000
Audible Noise Rating		<35 dBA
Agency Certification		cULus, cCSAus, CE
Dimensions		(L) 4.80" x (W) 3.60" x (H) 6.93
Weight		2.0 lb. (0.9 kg)

Wiring: (Terminal)



NOTE: ¹ The Enerdrive system is a patented method of storing energy (using super capacitors) that is later used to drive the actuator to its failsafe position during a power failure. For additional operating information consult PAM24-100-FS Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.



PAM24-112 — Submittal/Technical Data

04/05/20

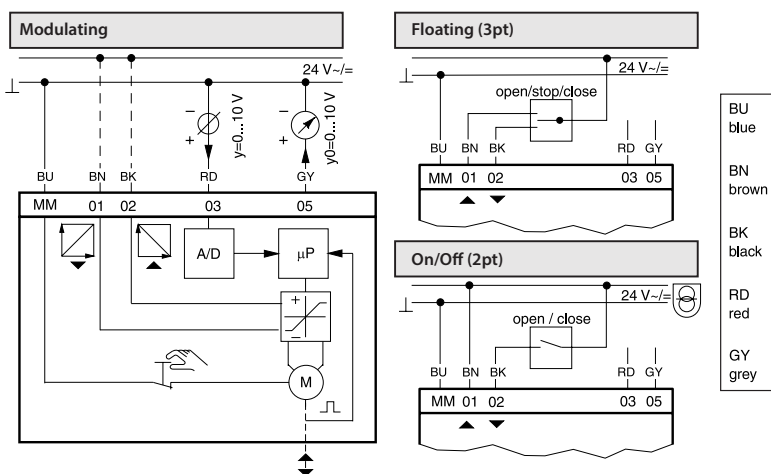
112 lb-force — Non-Fail Safe — On-Off, Floating & Modulating

Specifications: For Simple Set Max PIC Valve sizes 2-1/2" to 3"

Power Supply	Operating Voltage	24 VAC (+/-20%) at 50/60 Hz or 24 VDC (+20%, -10%)
	Power Consumption	3.5 W, 6.6 VA
Control Signal	Input Signal	On/Off, Floating and Modulating - 0 to 10 V, Ri > 100kΩ
Position Feedback Signal		0 to 10 V, Load > 10 kΩ
	Starting Point U ₀	0 or 10 V
	Control Span ΔU	10 V
	Switching Range Xsh	200 mV
Action		Direct or Reverse Acting
Stroke		0.31 to .78 inches (8 to 20mm)
Run Time		112.5 Seconds default ¹ at full stroke for SS-150 & 2
Response Time		200 ms
Manual Override		Yes
Enclosure Rating		IP54 (NEMA 3S Equivalent); Flame Retardent Plastic - Not intended for outdoor use without additional protection.
Maximum Media Temperature		212°F (100°C)
Ambient Temperature		14° to 131°F (-10° to 55°C)
Humidity Rating		5 to 85% RH Non Condensing
Connection		5 x 20 AWG (0.20 mm ²)
Life Cycle		80,000
Agency Certification		CE
Dimensions		5.73" L x 2.76" W x 7.13" H (145.5 x 70 x 181.2mm)
Weight		2.2 lb. (1 kg)

¹Dip switch adjustable

Wiring: (Cable)



DIP Switches

Running Time per mm	Switch Coding	Running Time for 8 mm of Stroke	Running Time for 20 mm of Stroke
7.5 s Default Setting for SS PIC Valve	<p>Run Time - Switch (1) Characteristic - Switches (2) & (3)</p>	60 s ± 2	150 s ± 5
15 s	<p>Run Time - Switch (1) Characteristic - Switches (2) & (3)</p>	120 s ± 4	300 s ± 10

NOTE: For additional operating information consult PAM24-112 Operation Manual. The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the nearest Bray office. Bray controls shall not be liable for damages resulting from misapplication or misuse of its products.