

GA(S) Series – Submittal/Technical Data

Linear Valve Actuators — Force 450 lbs. & 562 lbs.

GA(S) Series - Technical Specifications



| Technical Specifications - Actuator | | |
|--|---|---|
| Non-Spring Return | GA24-562 | On/Off, Floating and Modulating |
| Spring Return | GASRE24-450 | On/Off, Floating and Modulating, Shaft Normally Retracted |
| | GASEX24-450 | On/Off, Floating and Modulating, Shaft Normally Extended |
| Power Requirements | On/Off, Floating and Modulating | 24 VAC (±20%) at 50/60 Hz or 24 VDC (±15%) |
| Positioner ¹ | Control Signal 1 | 0 to 10 V, Ri > 100 kΩ |
| | Control Signal 2 | 4 to 20 mA, Ri = 50Ω |
| | Position Feedback Signal | 0 to 10 V, Load >10 kΩ |
| Action | Direct or Reverse Acting | |
| Switching Range | 300 mv | |
| Power Consumption ² | Non-Spring Return | 10W, 18VA |
| | Spring Return | 7.5W, 20VA |
| Force | Non-Spring Return | 562 lbs. (2,500 N) |
| | Spring Return | 450 lbs. (2,000 N) Power Stroke and Spring Stroke |
| Stroke | 0" to 1.93" (0-49mm) | |
| Max. Temperature of Media ³ | 248°F (120°C) | |
| Ambient Conditions | Temperature | 14°F to 131°F (-10° to 55°C) |
| | Humidity | 0 to 95% RH without condensation |
| | Storage Temperature | -4°F to 158°F (-20° to 70°C) |
| Level of Protection | IP 66. Not intended for outdoor use without additional protection. | |
| Enclosure | Self-extinguishing plastic | |
| Gear Materials | Gears & Gearbox | Steel |
| | Mounting Column | Stainless Steel |
| | Mounting Bracket | Cast Light Alloy |
| Electrical Connection | 13 AWG (2.5 mm ²) with screw terminals. Three knock-out cable entries for M20×1.5 (2×) and M16×1.5 | |
| Motor Run Time sec. per in. (mm) | 51 (2), 102 (4), 153 (6), DIP Switch Adjustable | |
| Spring Run Time ⁴ | 15... 30 seconds | |
| Number of Spring Returns | > 40,000 | |
| Response Time - 3-Point | 200 ms | |
| Weights | Non-Spring Return | 9.1 lbs. (4.1 kg) |
| | Spring Return | 12.3 lbs. (5.6 kg) |
| Agency Certifications | CE, UL Listed - Temperature-Indicating and Regulating Equipment, XAPX, XAPX7. File E366456 | |
| Warranty | 5 Years limited from time of shipment. | |

¹ Also for On/Off (2-point) or Floating (3 point) depending on the connection for 24V-

² Design the transformers for this value, otherwise functional faults may occur.

³ An intermediate piece is required for media temperatures between 248°F (120°C) and 464°F (240°C)

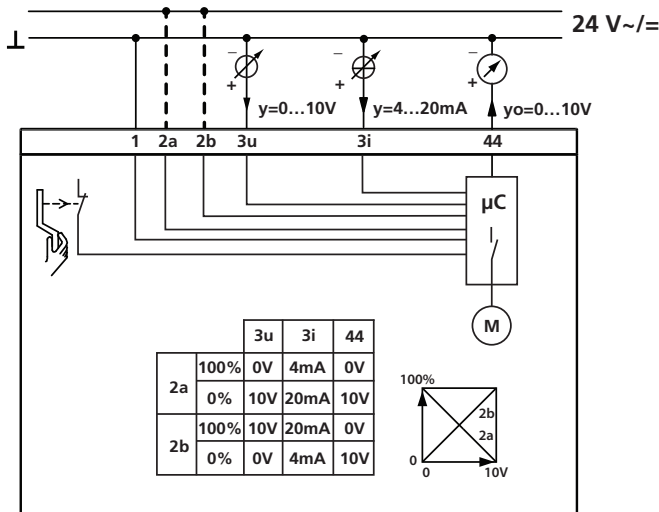
⁴ The return time corresponds to a stroke of 0.55 in. (14 mm) to 1.58 in. (40 mm) and does not depend on the set run time.

Disclaimer - The performance specifications are nominal and conform to acceptable industry standards.
For application at conditions beyond these specifications consult the local Bray office.
Bray, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

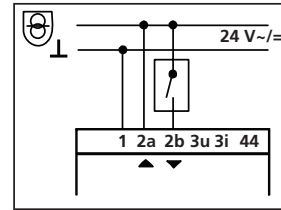
GA(S) Series - Wiring

Non-Spring Return

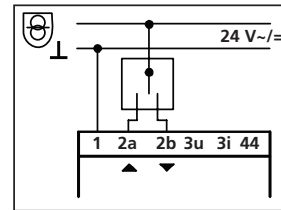
Modulating



On/Off (2 Point)



Floating (3 Point)



= Extra Low Voltage

Y = modulating signal

1= Neutral/Common for power and signal

2a/2b- These terminals determine forward acting/reverse acting. Only one should be powered with 24V.

Reverse Acting 2a = Extends. 0 volts = 100% retracted. 10V = 0% retracted.

Forward Acting 2b = Retracts. 0 volts = 0% retracted. 10V = 100% retracted.

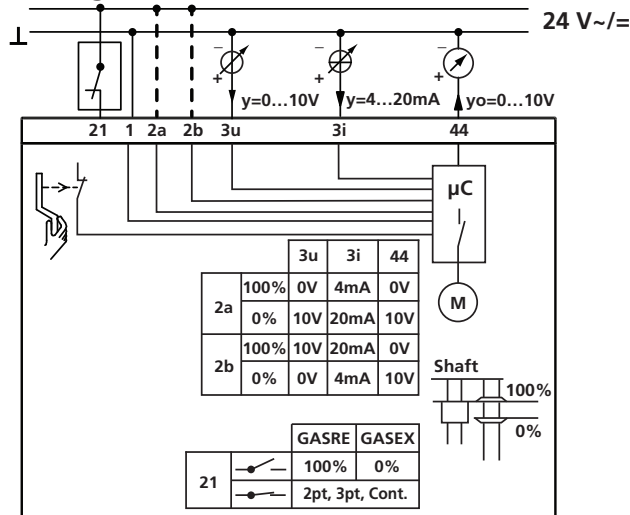
3u = 0 .. 10 V, in case of control by voltage

3i = 4 .. 20 mA, in case of control by current

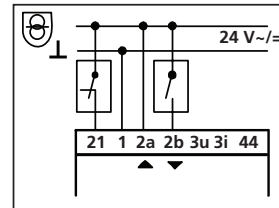
44 = 0 .. 10 V Feedback, independent from the use of 3u or 3i

Spring Return

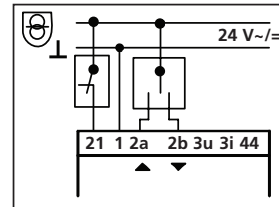
Modulating



On/Off (2 Point)



Floating (3 Point)



= Extra Low Voltage

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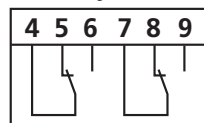
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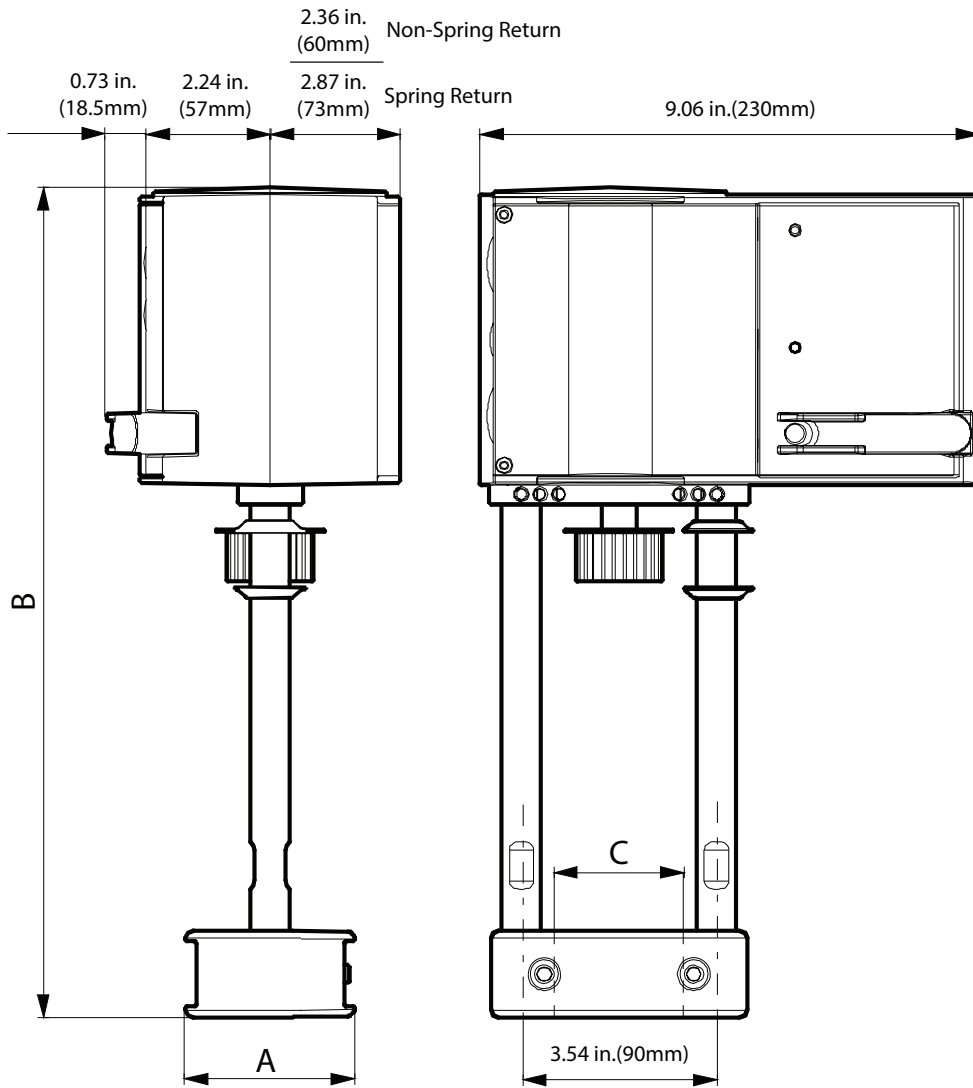
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Options

0372333 001
0372333 002
(Auxillary Switches)

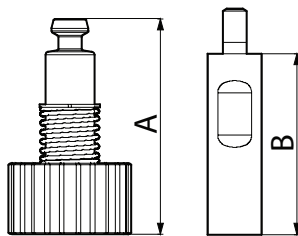


GA(S) Series - Dimensions



| Description | A | B | C |
|--------------|-----------------|-------------------|-----------------|
| GA(S) Series | 2.52 in. (64mm) | 11.38 in. (289mm) | 1.73 in. (44mm) |

Adaptor for media temperatures between 266°F (130°C) and 464°F (240°C)



| Part Number | A | B |
|-------------|--------------------|------------------|
| 0372336 240 | 4.31 in. (109.4mm) | 3.94 in. (100mm) |