

- On/Off & Floating - RA02460N20
- On/Off & Floating w/ Aux Switches - RA02460N21
- Modulating - RA02460N30

06/16/16

The RA Series are direct mount, non-spring return electric actuators that operate on 24 VAC/DC power. These actuators work with On/Off (2-point), Floating (3-point) or Modulating controls with 0-10 VDC or 4 to 20 mA signals. Auxiliary switches are optional.

These RA series actuators provide a running torque of 531 lb./in. (60Nm) and a travel time of 150 seconds for 90° of rotation. Suited for use on Bray NYL/ABL and MKL butterfly valves.



Actuator Model No.		RA02460N20	RA02460N21	RA02460N30
Control Input	On/Off	■	■	
	Floating	■	■	
	Modulating			■
Auxiliary Switches			■	
Wiring Connections	Conduit Size - NPT(N)	1/2 NPT	1/2 NPT	1/2 NPT
	Cable - Standard(S)	S	S	S
Features	0-10 VDC Feedback			■
	4-20 mA Feedback			■
	Time Out	■	■	■

Features and Benefits

- 531 in-lb. torque rating
Cost savings of a commercial actuator where an industrial unit is normally required
- Reversible via dip-switch
Adapts to any application

RA Series - Actuator Specifications

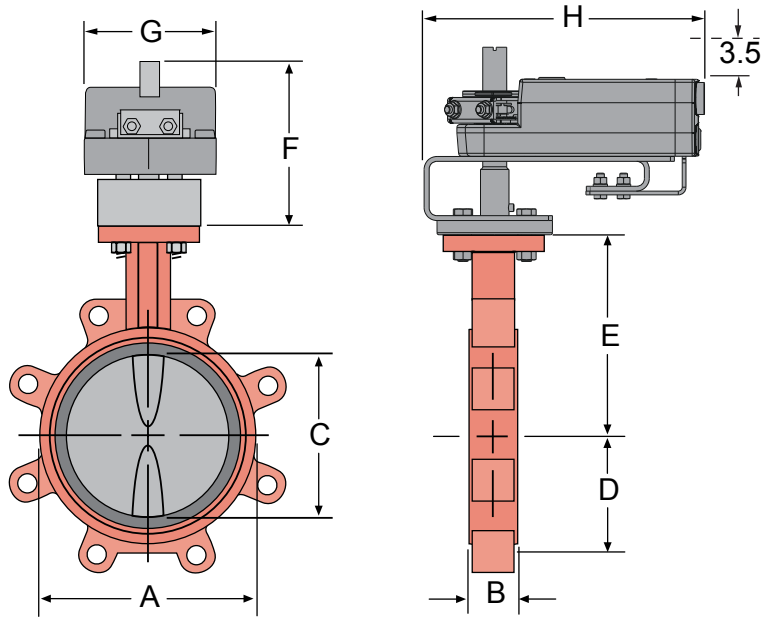


Technical Specifications			
Model Number	RA02460N20	RA02460N21	RA02460N30
Non-Spring Return	On/Off and Floating		Modulating
Power Requirements	24 VAC at 50/60 Hz or 24 VDC		
Power Consumption ¹	7.0 W		
Standby Power Consumption	2.0 W		
Voltage Range	19...29 VAC/DC		
Input Control Signal	24 VAC at 50/60 Hz or 24 VDC	0(2)...10 VDC or 0(4)...20mA Jumper Selectable	
Control Signal Input Impedance	0 to 10V > 100k ohms 2 to 10V > 50kohms		
Position Feedback Signal			0(2)...10 VDC, max 5mA
Auxilliary Switch Rating	N/A	2 X SPDT (AG)/5(2.5)A, 250 VAC/0...95°	N/A
Torque	531 in/lbs. (60 Nm)		
Rotation Range	0 to 95°, CW or CCW		
Runtime for 90° of Rotation	150 seconds		
Manual Override	Gear box ratchet with pushbutton, self-resetting		
Audible Noise Rating	<45dB(A)		
Life Cycle	20,000 full cycles, 600,000 repositions		
Ambient Conditions	Operating / -22 to 122°F (-30 to 50°C) 5 to 95% RH without condensation Storage / -22 to 176°F (-30 to 80°C) 5 to 95% RH without condensation		
Enclosure	NEMA 2 (IP 54)		
Electrical Cable Connection	0.04 in., 3 X 0.03 in. ² (1m, 3 X 0.75 mm ²)	0.04 in., 4 X 0.03 in. ² 1m, 4 X 0.75 mm ²)	
Dimensions	7.6 X 3.78 X 2.36 in. (193 X 96 X 60 mm)		
Weight	3.75 lbs. (1.7 kg)		

¹ Size the transformers for this value.

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.

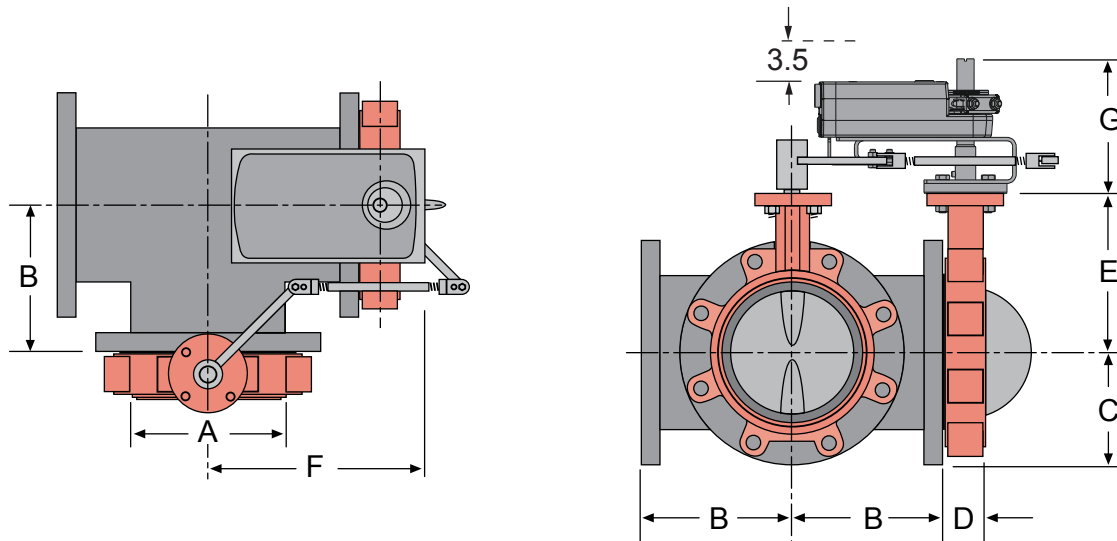
RA Series - Assembly Dimensions



2-Way - RA Actuator Series - Resilient Seated Butterfly Dimensions

Valve Models	Size in.(mm)	Flow Coefficient		BC	Bolt Holes	Threads	A	B	C	D	E	F	G	H
		Cv 90°	Cv 60°											
__ L2-_040	4 (100)	841	274	7.50	8	5/8-11	6.06	2.00	4.00	4.09	7.00	5.31	3.82	8.58
__ L2-_050	5 (125)	1376	428	8.50	8	3/4-10	7.06	2.12	5.00	4.61	7.50	5.31	3.82	8.58
__ L2-_061	6 (150)	1850	567	9.50	8	3/4-10	8.12	2.12	5.75	5.06	8.00	5.31	3.82	8.58

__ = NY=Nylon Coated Disc / AB=Aluminum Bronze Disc
 _ = N= Normally Open / C=Normally Closed
 Allow a minimum of 3.5 inches for actuator removal.



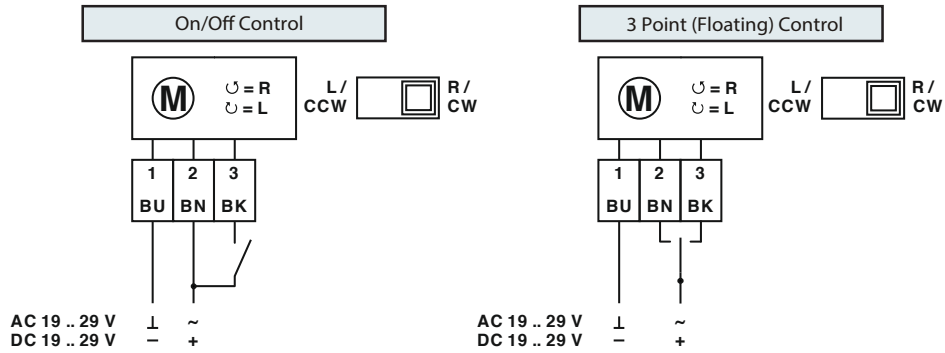
3-Way - RA Actuator Series - Resilient Seated Butterfly Dimensions

Valve Models	Size in.(mm)	Flow Coefficient		BC	Bolt Holes	Threads	A	B	C	D	E	F	G
		Cv 90°	Cv 60°										
__ L3-X040	4 (100)	841	274	7.50	8	5/8-11	4.00	6.50	4.50	2.00	7.00	14.50	5.31
__ L3-X051	5 (125)	1376	428	8.50	8	3/4-10	5.00	7.50	5.00	2.12	7.50	15.50	5.31

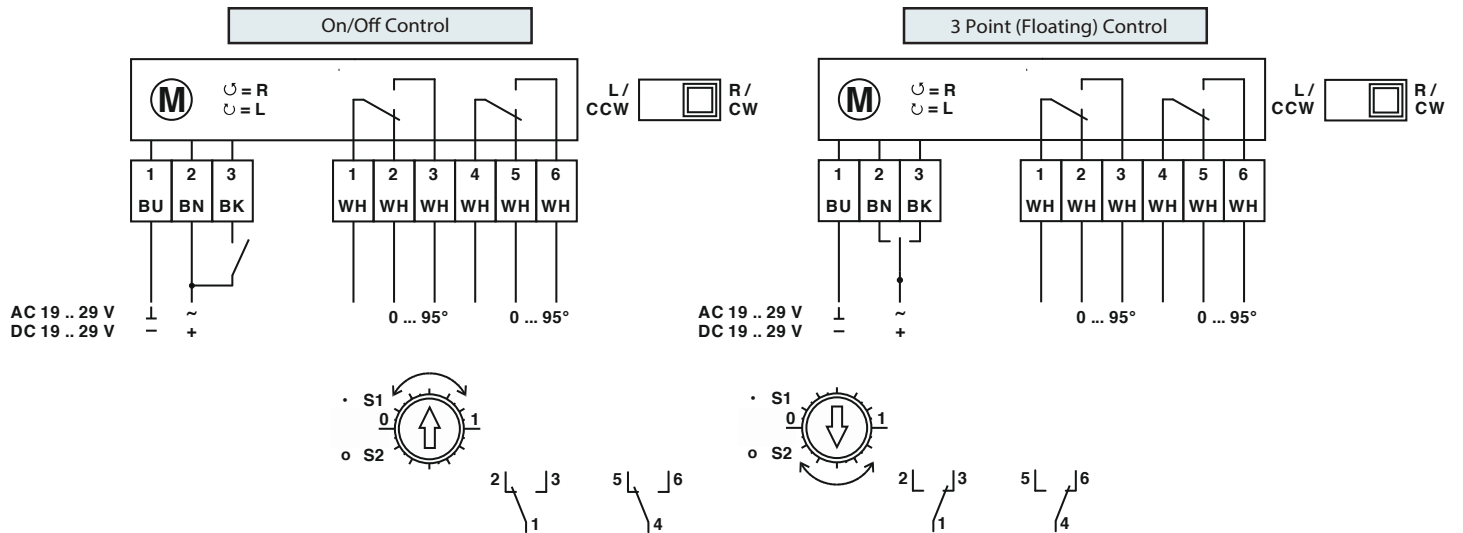
__ = NY=Nylon Coated Disc / AB=Aluminum Bronze Disc
 X = Configuration Number for 3-Way
 Allow a minimum of 3.5 inches for actuator removal.

RA Series - Wiring

RA02460N20 - On/Off & Floating



RA02460N21 - On/Off & Floating with Auxiliary Switches



RA02460N30 - Modulating

