

EA20 Standard Series Low Torque Non-Spring Return Rotary Actuator



Features

- proportional actuators w/ built-in feedback potentiometer
- open/close contact closure input
- 240/120/24Vac models available
- 50 in-lbs torque, opt. NEMA 4
- compatible with VB series valves

In conjunction with primary loop controllers, these low torque non-spring return actuators proportionally position fuel valves, butterfly valves, dampers or other similar devices. The output shaft moves in both directions and can stop at any point in the stroke. Four models are available featuring a standard 100Ω internal feedback slidewire and a selection of travel times and rotation limits. Not available with end limit switches, some models have auxiliary switches and a variety of optional features. The EA20 Series is UL and cUL or CSA listed, except for models with built-in transformers. CSA listed models are: EA21-00003-000-0-00, EA22-00000-000-0-00 and EA24-00000-000-0-00. The EA20 Series is compatible with the VB-7000- and VB-9000 valves in this catalog.

Ordering codes

Model Series	Base Model	Input	Options	Volts/Freq	Transformer	Feedback Slidewire
EA						

Logo/Label	Specials
	00

Base Model	
21	90° travel limit, 12 sec, 50 in-lbs torque, no aux switch
22	180° travel limit, 25 sec, 50 in-lbs torque, no aux switch
23	90° travel limit, 12 sec, 50 in-lbs torque, aux switch
24	180° travel limit, 25 sec, 50 in-lbs torque, aux switch

Voltage/Frequency	
0	120Vac, 60Hz
3	240Vac, 60Hz (n/a with EA21, EA23, EA24)
4	240Vac, 50Hz (n/a with EA21, EA23)
5	24Vac, 60Hz (n/a with EA21, EA23)

Input			
00	Contact	Rain Tight Converters	
11	4-20mAdc 658A-00001	21	4-20mAdc 658A-00011
12	4-12mAdc 658A-00002	22	4-12mAdc 658A-00012
13	12-20mAdc 658A-00003	23	12-20mAdc 658A-00013
14	2-12mAdc 658A-00004	24	2-12mAdc 658A-00014
15	2-7mAdc 658A-00005	25	2-7mAdc 658A-00015
16	7-12mAdc 658A-00006	26	7-12mAdc 658A-00016
19	Special 658A-00008-x*	29	Special 658A-00018-x*
31	4-20mAdc 659A-00000	41	Slidewire 659A-00010

Model 658A is a current-to-position converter; Model 659A is a resistance-to-position converter.

In order to be weather resistant, rain tight input converters also require cover option 31-37.

*Consult factory

Options	
00	None
01	2 aux. SPDT switches
02	4 aux. SPDT switches
03	Rear Shaft
04	100Ω rear slidewire
05	100Ω rear slidewire, 2 switches
06	1000Ω rear slidewire
31	100Ω rear slidewire, NEMA 4 cover
32	Two 100Ω rear slidewires, NEMA 4
33	Three 100Ω rear slidewires, NEMA 4
37	NEMA 4 cover

Transformer	
00	None
01	Built in 120-24Vac**
02	Built in 240-24Vac**

Slidewire	
0	100Ω
1	135Ω
2	300Ω
3	1000Ω

Logo/Label	
0	Barber-Colman
E	Eurotherm

Specials	
00	None

Specifications

Control action:

Floating or proportional electric

Torque:

50 in-lbs:

Shaft rotation:

Reversible proportional – 90° or 180° travel limit

Dimensions:

7" H x 5-3/8" W x 6-5/16" D

Weight:

8lbs.

Case:

Die cast aluminum w/ 2 Knockouts each side

Temperature:

-40 to 136°F (-40 to 58°C)

Humidity:

5 to 95% RH, non-condensing

Power consumption:

28 watts

Mounting:

Upright

Auxiliary switch:

Adjustable SPDT snap acting, factory set to close one contact and open the other at end of clockwise rotation