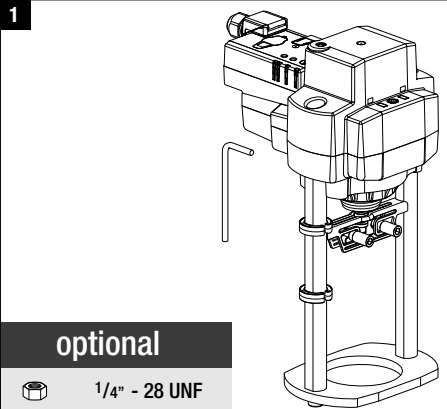
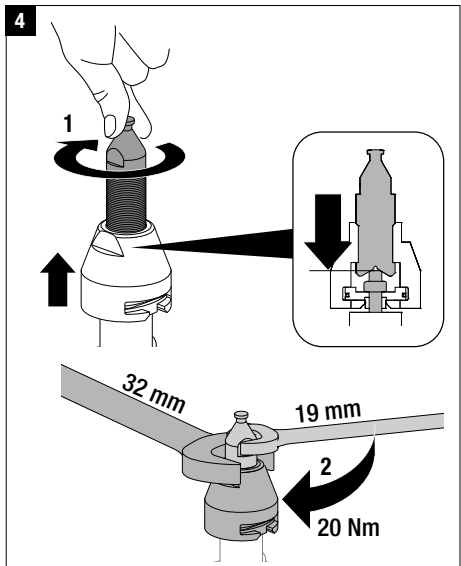
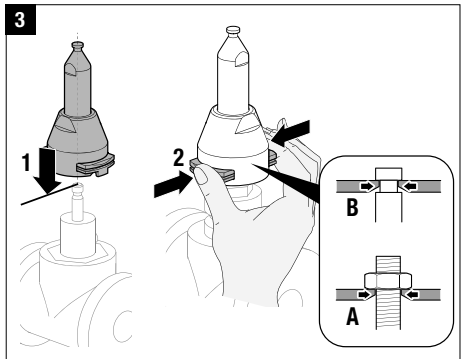
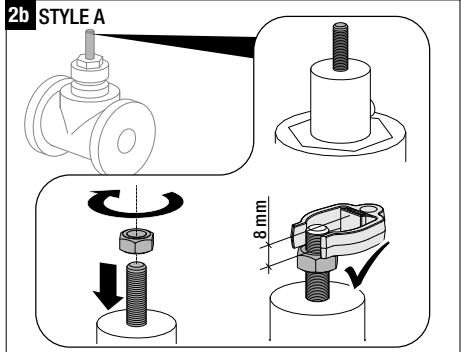
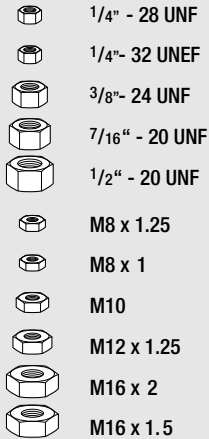
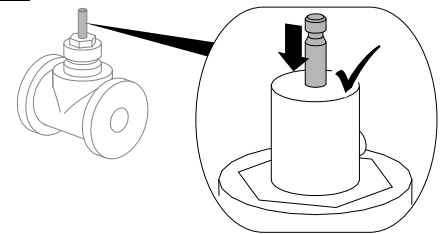


FGVL Linkage with EV Series Actuators



optional

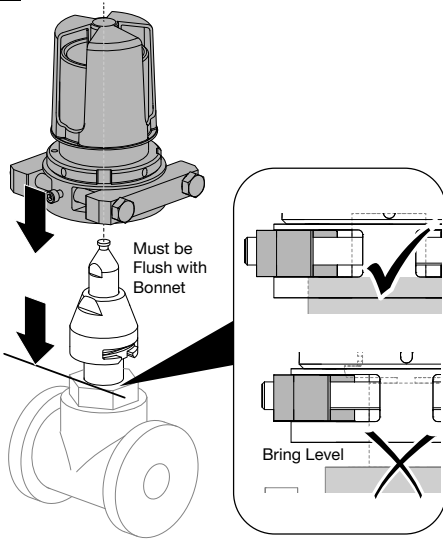
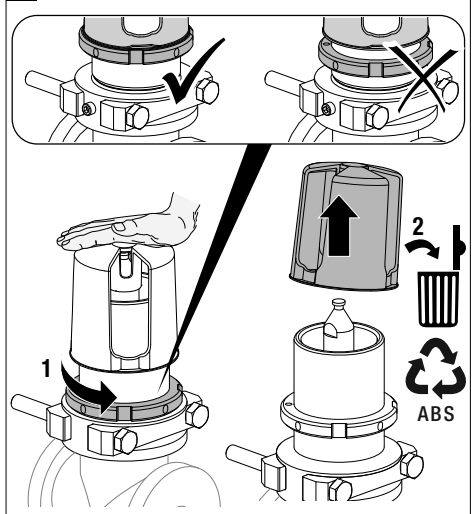
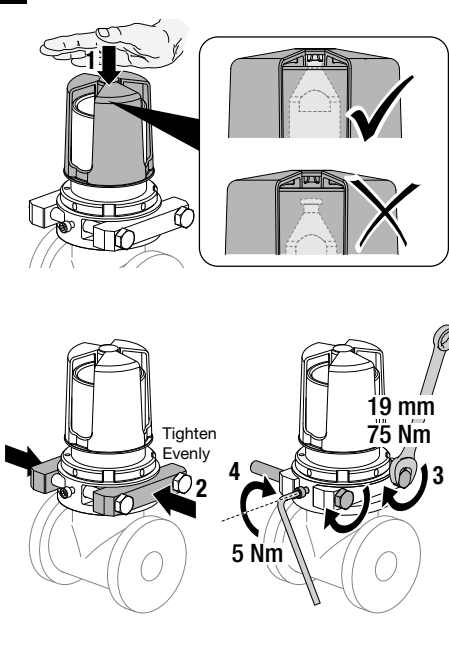
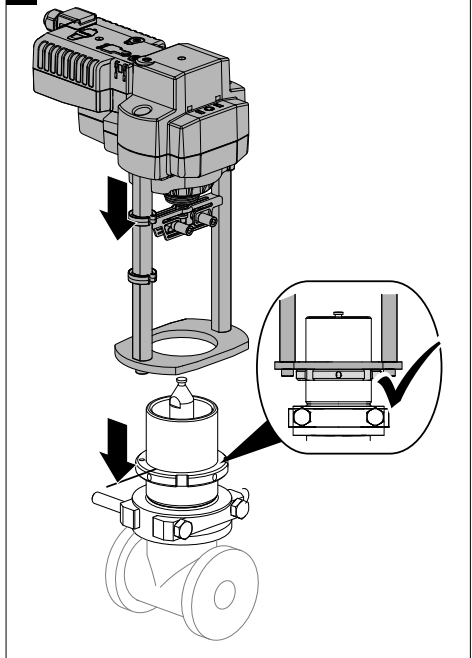
**2a** STYLE B

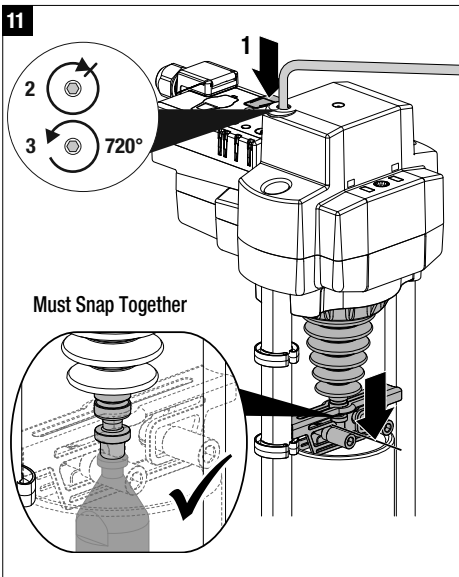
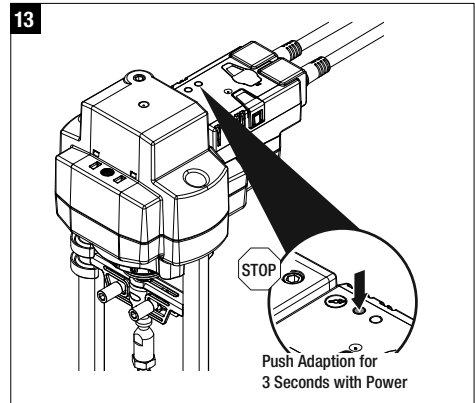
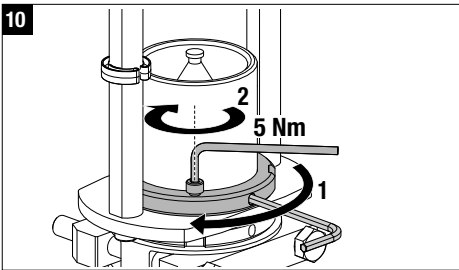
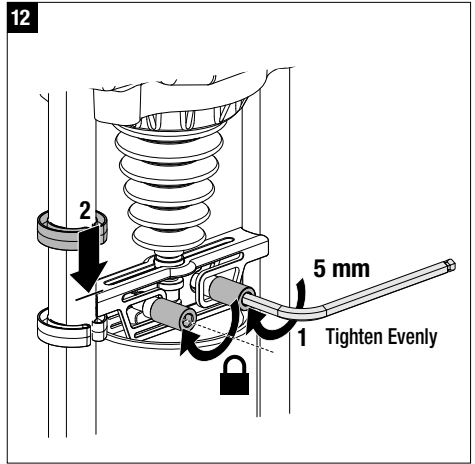
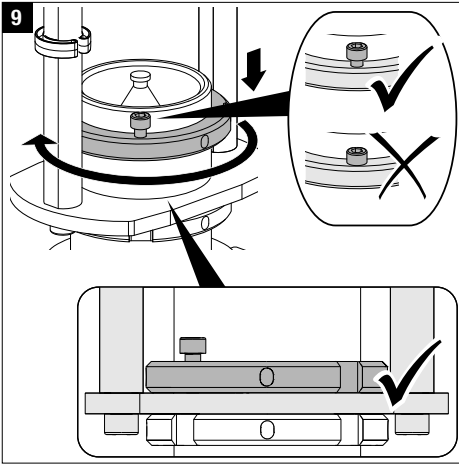
View the installation video for FGVL on Belimo's YouTube channel:

<https://youtu.be/fqs8XfRPyQw>

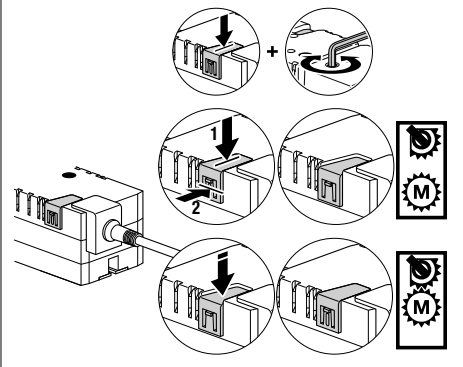
QUICK MOUNT VISUAL INSTRUCTION MANUAL

FGVL Linkage with EV Series Actuators

5**7****6****8**



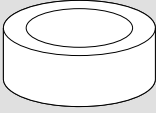
Optional Lock and Manual Override



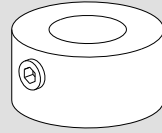
FGVL Linkage with EV Series Actuators

Optional

SIEBE



JOHNSON CONTROL



SIEBE

DN
min. / max.

Temp.

VB9

65 / 300

2 ... 150 °C

JOHNSON CONTROLS

DN
min. / max.

Temp.

VG2231 VN

65 / 100

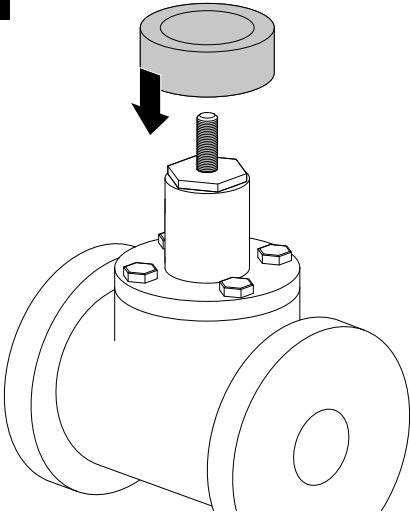
2 ... 150 °C

VG2231 WN

65 / 150

2 ... 150 °C

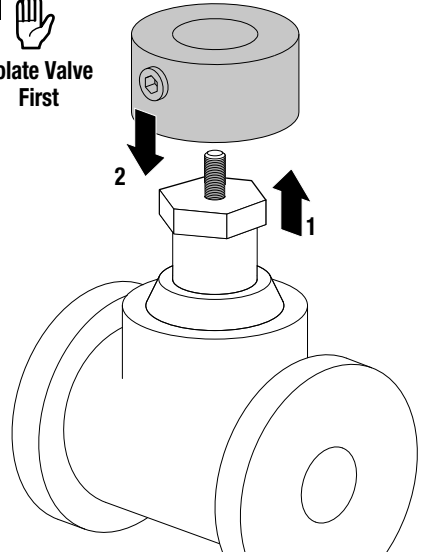
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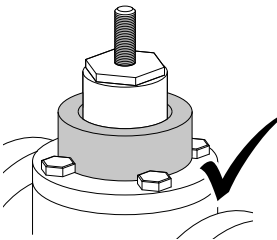
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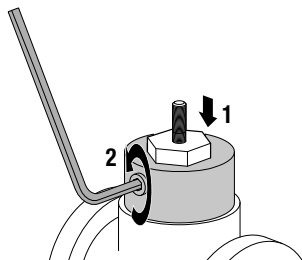
Isolate Valve First



2



2



WIRING DIAGRAMS

<p>Non-Spring Return Actuator with -3</p> <p>On/Off</p>	<p>24 VAC Transformer</p> <p>Floating Point</p>	<p>Non-Spring Return Actuator with -SR</p> <p>VDC / 4 to 20 mA</p>																				
<p>On/Off</p> <p>On/Off</p>	<p>Floating Point</p> <p>Floating Point</p>	<p>Signal Direction</p> <p>Selector Switches</p>																				
<p>24 VAC Transformer (AC only)</p> <p>Triac Sink</p>	<p>24 VAC Transformer (AC only)</p> <p>Triac Source</p>	<p>Selector Switches</p>																				
<p>Non-Spring Return Actuator with MFT</p> <p>On/Off</p>	<p>24 VAC Transformer</p> <p>Floating Point</p>	<p>Notes:</p> <ul style="list-style-type: none"> ◆ Meets cULus requirements without the need of an electrical ground connection Ⓐ Actuators with appliance cables are numbered. ⚠ Actuators may be connected in parallel. Power consumption and input impedance must be observed. ⚠ Actuators may also be powered by 24 VDC. ⚠ Only connect common to neg. (-) leg of control circuits. ⚠ A 500 Ω resistor converts the 4 to 20 mA control signal to 2 to 10 VDC. ⚠ Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line. ⚠ Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink. ⚠ For triac sink the Common connection of the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller. The actuator internal common reference is not compatible. ⚠ IN4004 or IN4007 diode. (IN4007 supplied, Belimo Part number 40155) ⚠ Actuators with plenum rated cable do not have numbers on wires; use color codes instead. 																				
<p>24 VAC Transformer</p> <p>VDC / 4 to 20 mA</p>	<p>24 VAC Transformer (AC Only)</p> <p>Override Control Min, Mid, Max Positions</p> <table border="1"> <thead> <tr> <th>Functions</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>Min</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Mid</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Max</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Normal</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table> <p>Control leads are 10-1</p>	Functions	A	B	C	Min	✓	✓	✓	Mid	✓	✓	✓	Max	✓	✓	✓	Normal	✓	✓	✓	<p>Notes:</p> <ul style="list-style-type: none"> ◆ Meets cULus requirements without the need of an electrical ground connection Ⓐ Actuators with appliance cables are numbered. ⚠ Actuators may be connected in parallel. Power consumption and input impedance must be observed. ⚠ Actuators may also be powered by 24 VDC. ⚠ Only connect common to neg. (-) leg of control circuits. ⚠ A 500 Ω resistor converts the 4 to 20 mA control signal to 2 to 10 VDC. ⚠ Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line. ⚠ Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink. ⚠ For triac sink the Common connection of the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller. The actuator internal common reference is not compatible. ⚠ IN4004 or IN4007 diode. (IN4007 supplied, Belimo Part number 40155) ⚠ Actuators with plenum rated cable do not have numbers on wires; use color codes instead.
Functions	A	B	C																			
Min	✓	✓	✓																			
Mid	✓	✓	✓																			
Max	✓	✓	✓																			
Normal	✓	✓	✓																			

- BRN Brown
- BLU Blue
- ORG Orange
- PNK Pink
- WHT White
- RED Red
- BLK Black
- MAI Maroon
- AZU Azul
- ANR Anaranjado
- ROJ Rojo
- BLN Blanco
- ORG Orange
- BLU Bleu
- ORG Anaranjado
- PNK Rosado
- WHT Branco
- RED Vermelho
- BLK Negro
- MAI Marrom
- AZU Azul
- ANR Alaranjado
- ROJ Cor-de-ros
- BLN Branco
- ORG Vermelho
- BLK Preto

FGVL Linkage with AVK Series Actuators

1

optional

- 1/4" - 28 UNF
- 1/4"- 32 UNEF
- 3/8"- 24 UNF
- 7/16" - 20 UNF
- 1/2" - 20 UNF
- M8 x 1.25
- M8 x 1
- M10
- M12 x 1.25
- M16 x 2
- M16 x 1.5

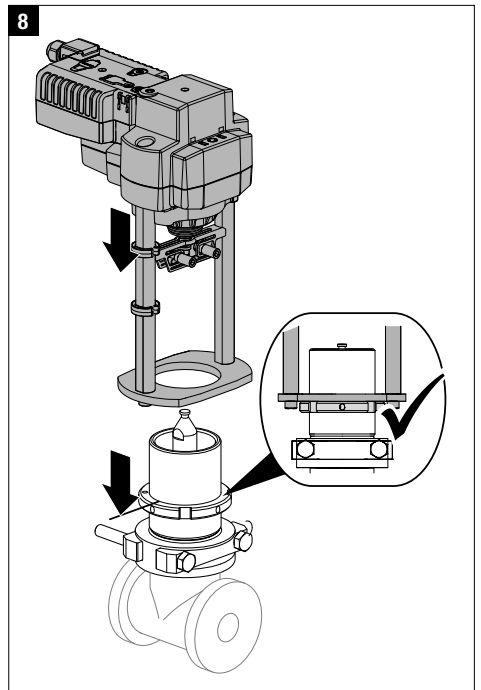
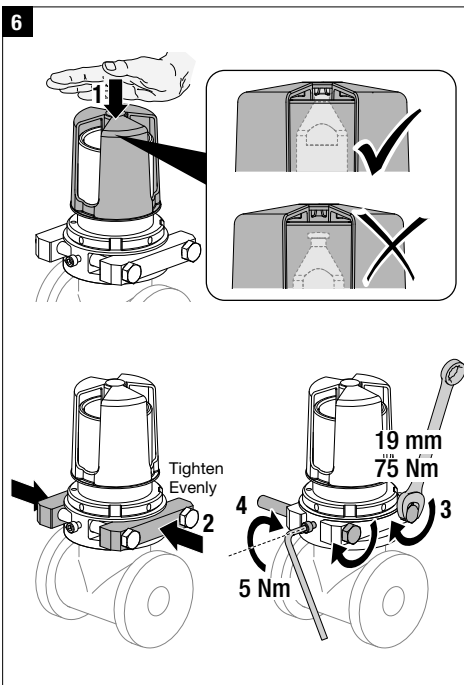
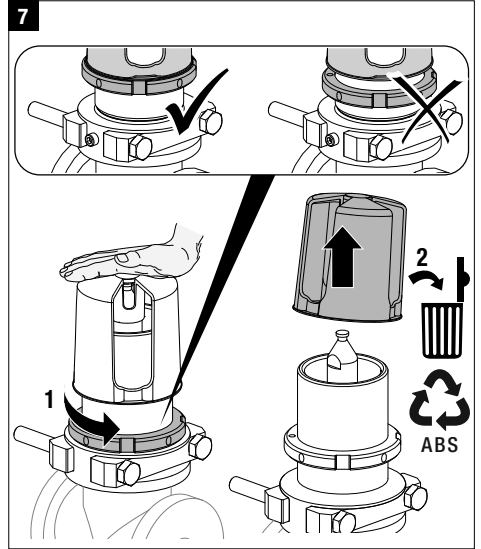
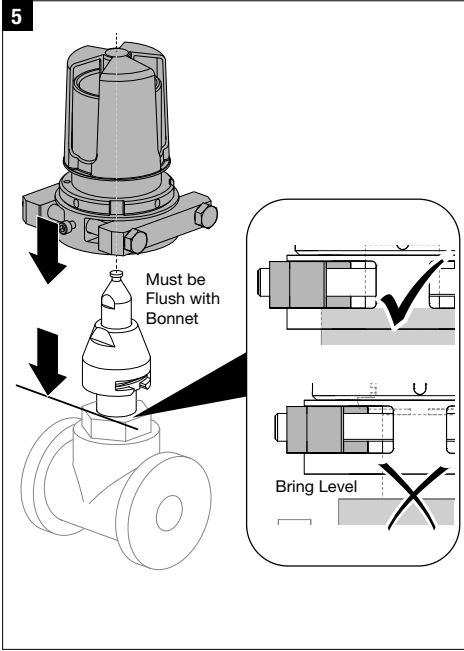
Optional	Siebe	VB9..	page 4
	Johnson Controls	VG2231 VN, VG2231 WN	page 4

2a STYLE B

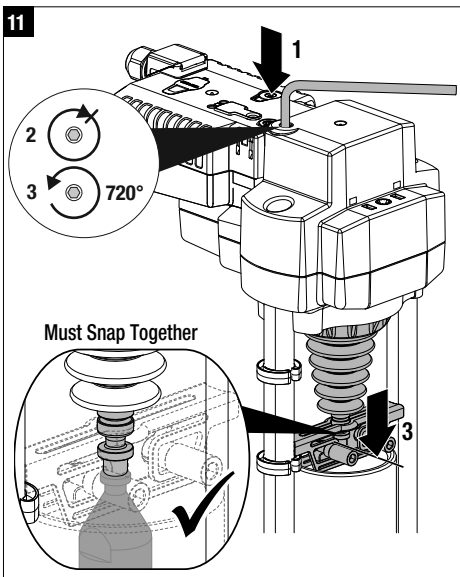
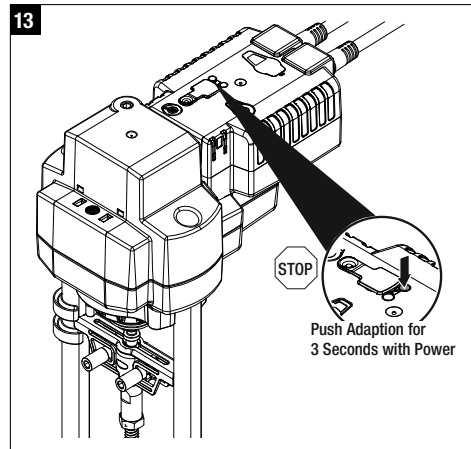
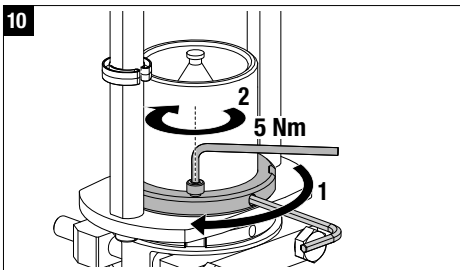
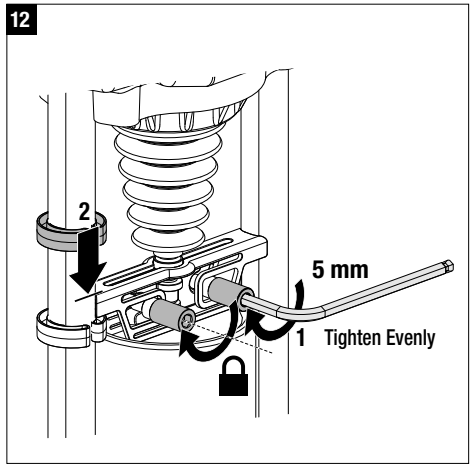
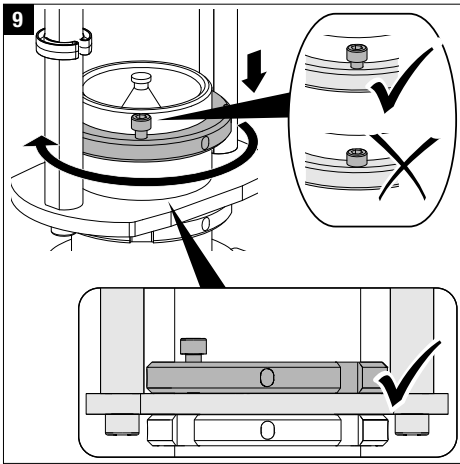
2b STYLE A

3

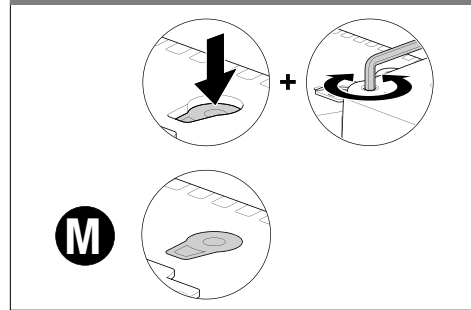
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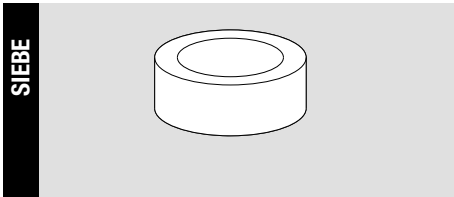


FGVL Linkage with AVK Series Actuators

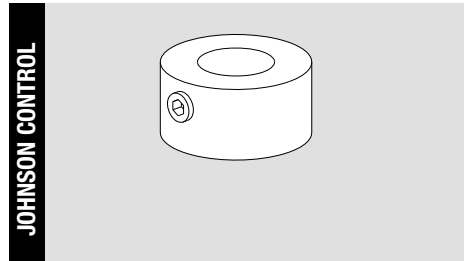
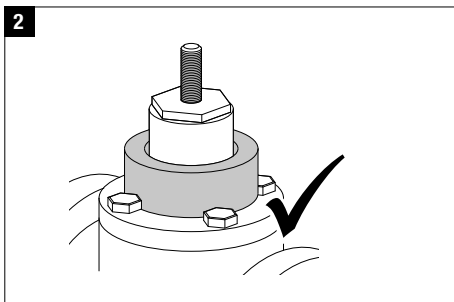
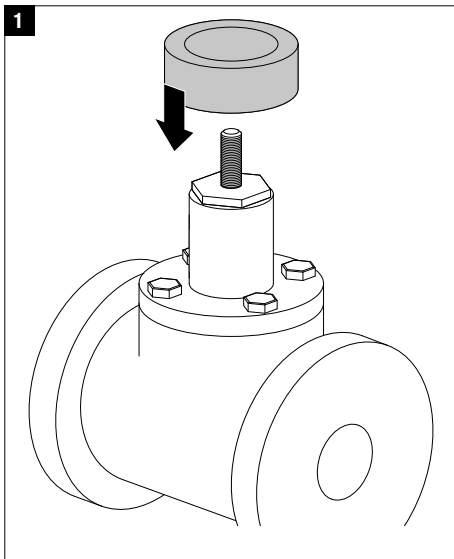


Optional Manual Override

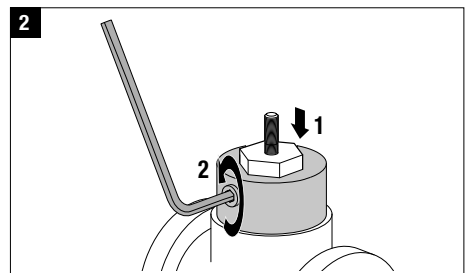
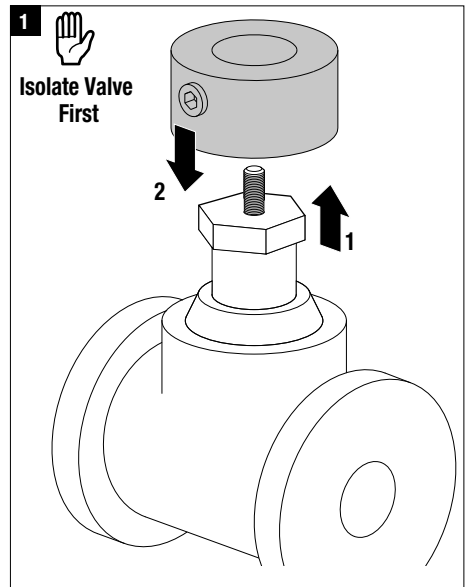




SIEBE	DN min. / max.	Temp.
VB9	65 / 300	2 ... 150 °C



JOHNSON CONTROLS	DN min. / max.	Temp.
VG2231 VN	65 / 100	2 ... 150 °C
VG2231 WN	65 / 150	2 ... 150 °C

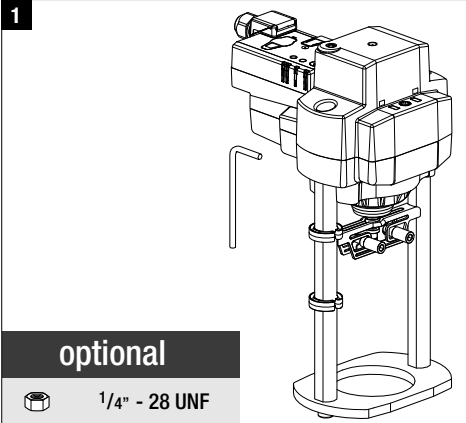


QUICK MOUNT VISUAL INSTRUCTION MANUAL












FGVL Linkage with AVK Series Actuators

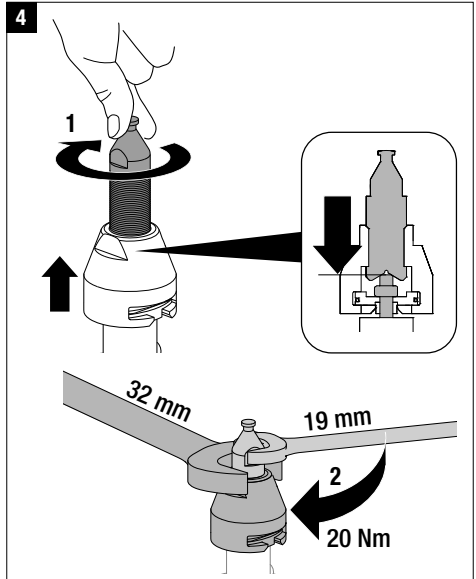
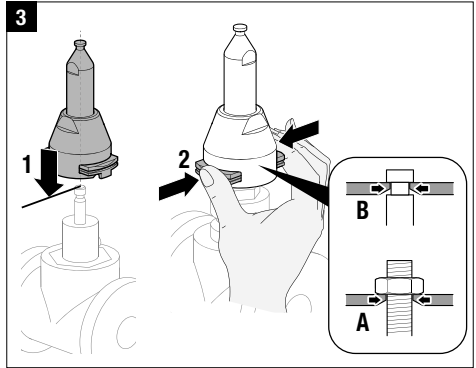
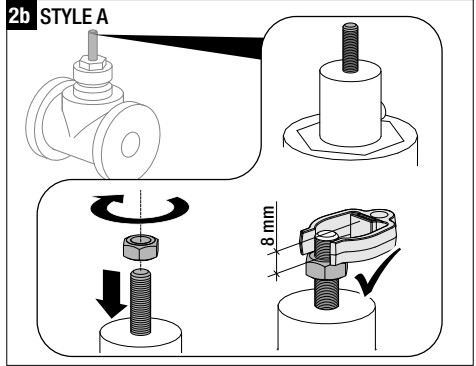
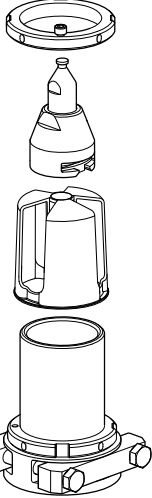
WIRING DIAGRAMS

<p>Electronic Fail-Safe Actuator with -3</p> <p>On/Off</p>	<p>24 VAC Transformer</p> <p>Floating Point</p>																									
<p>100 to 240 VAC</p> <p>On/Off</p>	<p>100 to 240 VAC</p> <p>Floating Point</p>	<p>Selector Switches</p>																								
<p>24 VAC Transformer</p> <p>Triac Sink</p>	<p>24 VAC Transformer</p> <p>Triac Source</p>	<p>24 VAC Transformer</p> <p>Triac Sink with Separate Transformer</p>																								
<p>Electronic Fail-Safe Actuator with MFT</p> <p>On/Off</p>	<p>24 VAC Transformer</p> <p>Floating Point</p>	<p>Notes:</p> <ul style="list-style-type: none"> ◆ Meets cULus requirements without the need of an electrical ground connection Ⓐ Actuators with appliance cables are numbered. ⚠ Actuators may be connected in parallel. Power consumption and input impedance must be observed. ⚠ Actuators may also be powered by 24 VDC. ⚠ Only connect common to neg. (-) leg of control circuits. ⚠ A 500 Ω resistor converts the 4 to 20 mA control signal to 2 to 10 VDC. ⚠ Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line. ⚠ Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink. ⚠ For triac sink the Common connection from the actuator must be connected to the Hot connection of the triac sink controller. The actuator internal common reference is not compatible. ⚠ IM4004 or IM4007 diode. (IM4007 supplied, Belimo Part number 40155) ⚠ Actuators with plenum rated cable do not have numbers on wires; use color codes instead. 																								
<p>24 VAC Transformer</p> <p>VDC / 4 to 20 mA</p>	<p>24 VAC Transformer (AC Only)</p> <p>Override Control Min, Mid, Max Postions</p> <table border="1"> <thead> <tr> <th>Min</th> <th>Mid</th> <th>Max</th> <th>Normal</th> </tr> </thead> <tbody> <tr> <td>Function</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>25% -</td> <td>25%</td> <td>25%</td> <td>25%</td> </tr> <tr> <td>50% -</td> <td>50%</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>75% -</td> <td>75%</td> <td>75%</td> <td>75%</td> </tr> <tr> <td>Control feedback type</td> <td>25%</td> <td>50%</td> <td>75%</td> </tr> </tbody> </table>	Min	Mid	Max	Normal	Function	2	3	4	25% -	25%	25%	25%	50% -	50%	50%	50%	75% -	75%	75%	75%	Control feedback type	25%	50%	75%	<p>Color Codes:</p> <ul style="list-style-type: none"> BRN: Brown BLU: Blue ORG: Orange PRK: Pink WHI: White RED: Red BLK: Black MAI: Maroon BUY: Beige ANR: Anaranjado ROS: Rosa BIA: Bianco GRD: Gris AZL: Azul BLE: Bleu ARR: Alaranjado COI: Cor-de ros BRN: Branco WHI: White BIA: Bianco ROS: Rosa VER: Vermelho NEG: Negro PRE: Preto
Min	Mid	Max	Normal																							
Function	2	3	4																							
25% -	25%	25%	25%																							
50% -	50%	50%	50%																							
75% -	75%	75%	75%																							
Control feedback type	25%	50%	75%																							

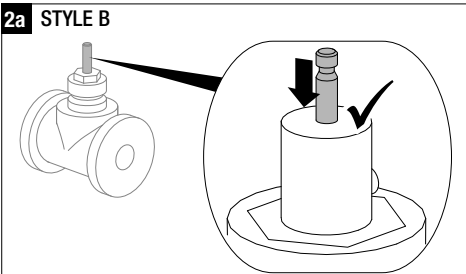


optional

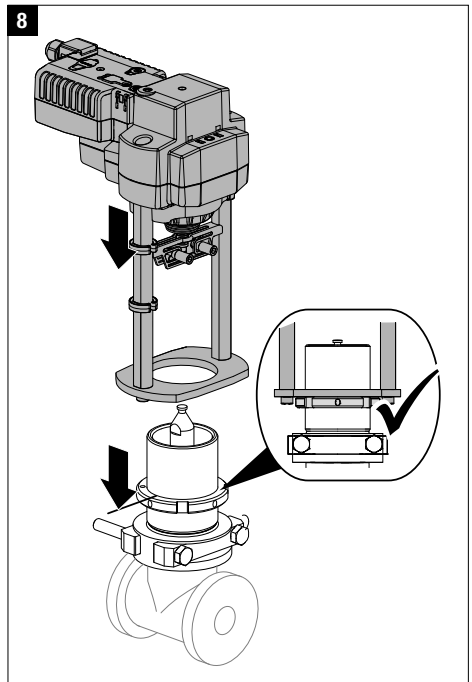
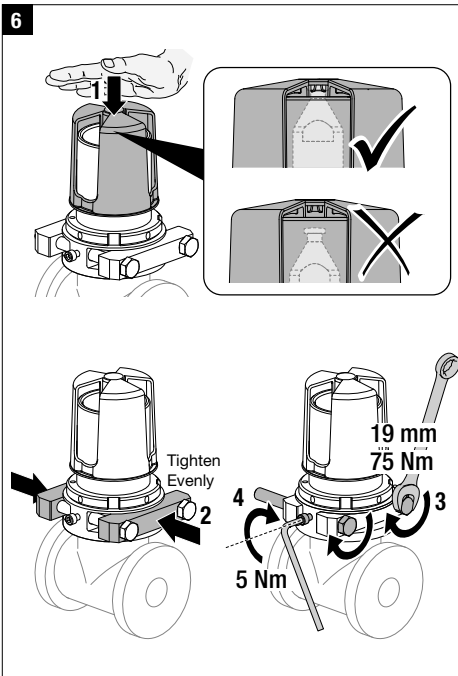
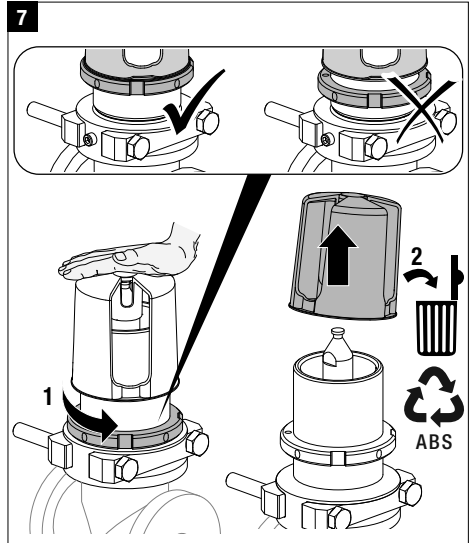
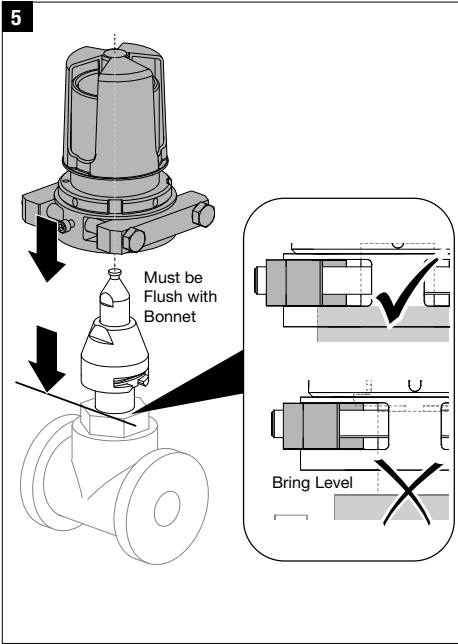
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-  1/4"- 32 UNEF
-  3/8"- 24 UNF
-  7/16" - 20 UNF
-  1/2" - 20 UNF
-  M8 x 1.25
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-  M16 x 1.5

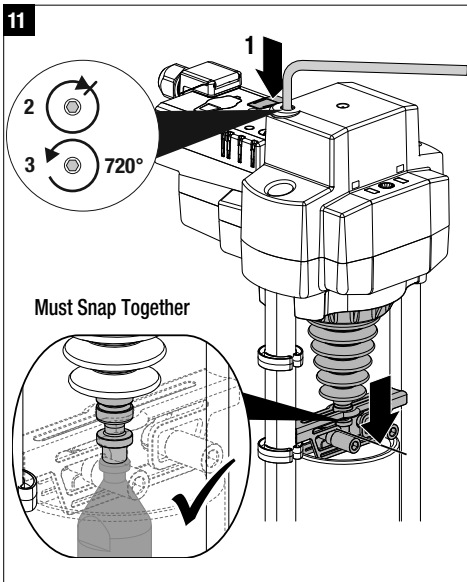
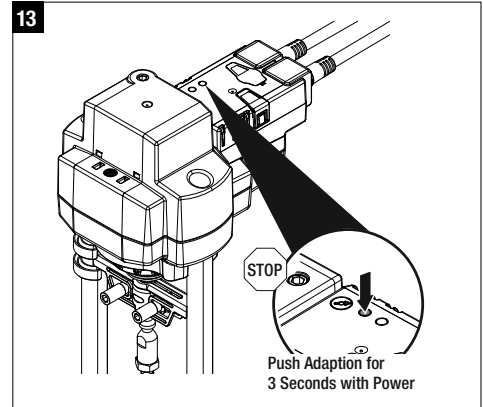
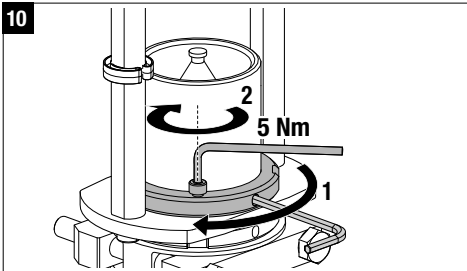
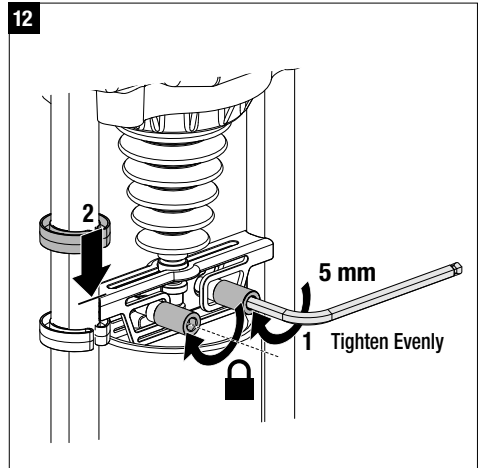
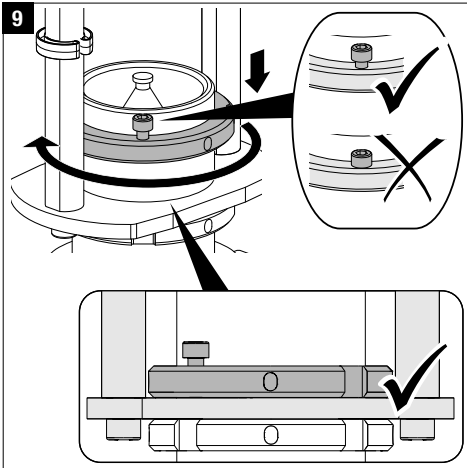


Optional	Siebe	VB9..	page 4
	Johnson Controls	VG2231 VN, VG2231 WN	page 4

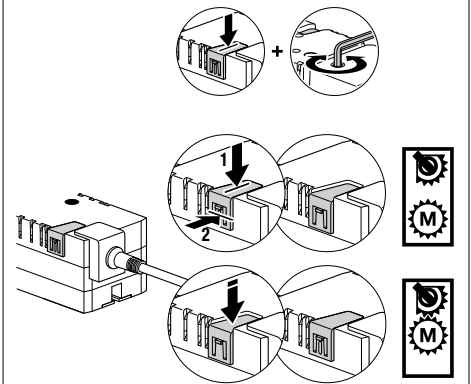


QUICK MOUNT VISUAL INSTRUCTION MANUAL
 FGVL Linkage with RV Series Actuators

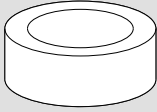




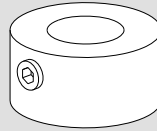
Optional Lock and Manual Override



SIEBE



JOHNSON CONTROL



SIEBE

DN
min. / max.

Temp.

VB9

65 / 300

2 ... 150 °C

JOHNSON CONTROLS

DN
min. / max.

Temp.

VG2231 VN

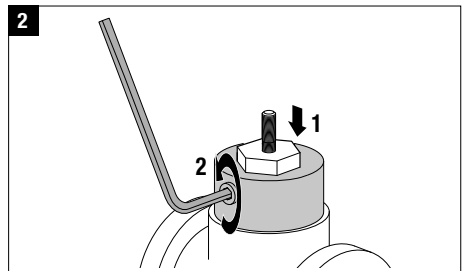
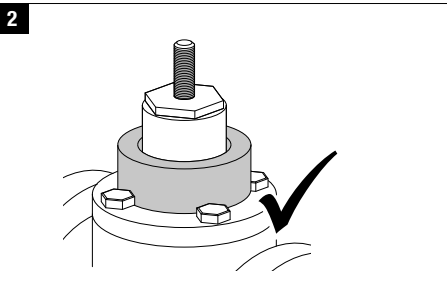
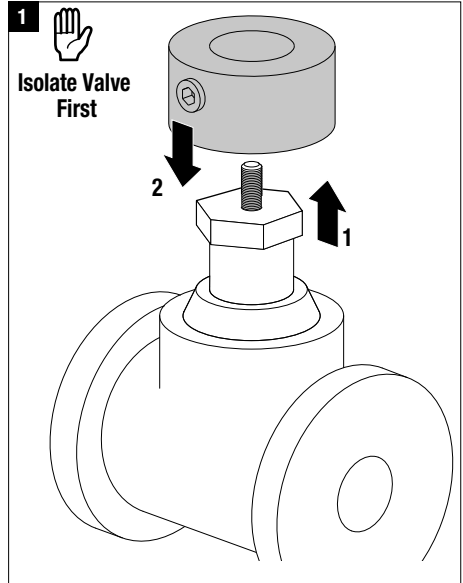
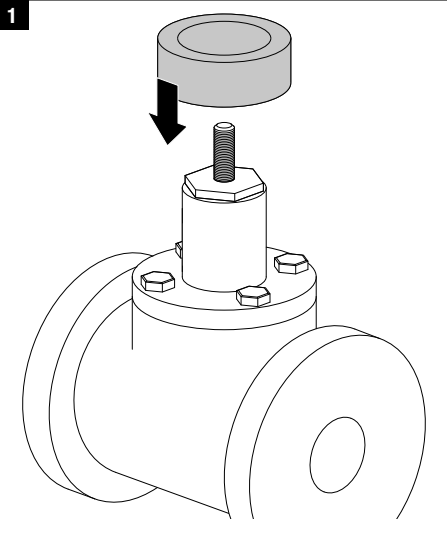
65 / 100

2 ... 150 °C

VG2231 WN

65 / 150

2 ... 150 °C



WIRING DIAGRAMS

<p>Non-Spring Return Actuator with -3</p> <p>On/Off</p>	<p>Floating Point</p> <p>Floating Point</p>	<p>Signal Direction</p> <p>Selector Switches</p>
<p>Non-Spring Return Actuator with MFT</p> <p>On/Off</p>	<p>Floating Point</p> <p>Floating Point</p>	<p>Notes:</p> <ul style="list-style-type: none"> ◆ Meets cULus requirements without the need of an electrical ground connection Ⓐ Actuators with appliance cables are numbered. ⚠ Actuators may be connected in parallel. Power consumption and input impedance must be observed. ⚠ Actuators may also be powered by 24 VDC. ⚠ Only connect common to neg. (-) leg of control circuits. ⚠ A 500 Ω resistor converts the 4 to 20 mA control signal to 2 to 10 VDC. ⚠ Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line. ⚠ Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink. ⚠ For triac sink the Common connection from the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller. The actuator internal common reference is not compatible. ⚠ IN4004 or IN4007 diode. (IN4007 supplied, Belimo Part number 40155) ⚠ Actuators with plenum rated cable do not have numbers on wires; use color codes instead.
<p>VDC / 4 to 20 mA</p> <p>VDC / 4 to 20 mA</p>	<p>Override Control Min, Mid, Max Postions</p> <p>Override Control Min, Mid, Max Postions</p>	<p>Notes:</p> <ul style="list-style-type: none"> ⚠ Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink. ⚠ For triac sink the Common connection from the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller. The actuator internal common reference is not compatible. ⚠ IN4004 or IN4007 diode. (IN4007 supplied, Belimo Part number 40155) ⚠ Actuators with plenum rated cable do not have numbers on wires; use color codes instead.

- BRN Brown
- BRN Marron
- BLU Blue
- BLU Azul
- BLU Bleu
- BLU Azul
- ORG Orange
- ORG Anaranjado
- ORG Orange
- ORG Alaranjado
- PNK Pink
- PNK Rosado
- PNK Rosa
- PNK Cor-de-ros
- WHT White
- WHT Branco
- WHT Blanc
- WHT Blanco
- RED Red
- RED Vermelho
- RED Rouge
- RED Vermelho
- BLK Black
- BLK Negro
- BLK Noir
- BLK Preto

RETRO FIT[®]



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