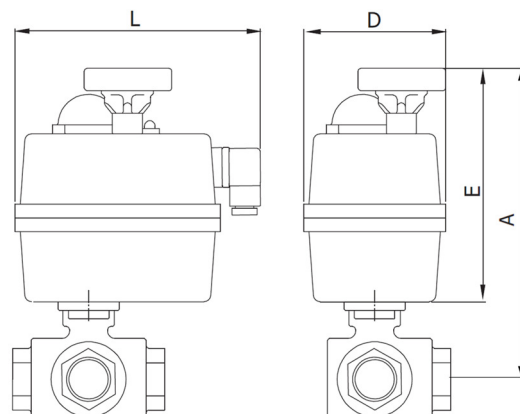


### VFE-987/VFE-988 - Electrically Actuated 3 Way Stainless Steel Ball Valve

| Actuator       | VF-0S |       |       |       |       |        | VF-05S | VF-1S |        | VF-15S | VF-2S |
|----------------|-------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|
| DN             | 1/4"  | 3/8"  | 1/2"  | 3/4"  | 1"    | 1 1/4" | 1 1/2" | 2"    | 2 1/2" | 3"     | 4"    |
| A              | 205.8 | 205.8 | 205.8 | 210.2 | 215.5 | 225    | 229    | 266.5 | 291.5  | 302    | 373   |
| E              | 169   | 169   | 169   | 169   | 169   | 169    | 169    | 196   | 196    | 196    | 254   |
| L              | 189.5 | 189.5 | 189.5 | 189.5 | 189.5 | 189.5  | 189.5  | 189.5 | 189.5  | 189.5  | 243.5 |
| D              | 110   | 110   | 110   | 110   | 110   | 110    | 110    | 110   | 110    | 110    | 214   |
| Operating Time | 10s   | 10s   | 10s   | 10s   | 10s   | 10s    | 10s    | 13s   | 13s    | 29s    | 34s   |



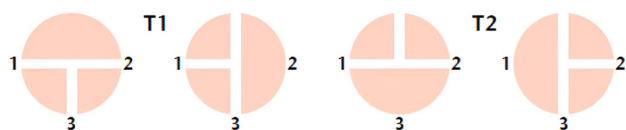
| Actuator Specification     |                                                                                                                     | Valve Specification         |                                                                    |
|----------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------|
| Enclosure                  | Weatherproof IP67                                                                                                   | Body                        | Stainless Steel                                                    |
| Power                      | 24V to 240V AC / 24V to 110V DC                                                                                     | Seats                       | RPTFE (15%)                                                        |
| Limit Switches             | 4X SPDT microswitches (2 motor stop and 2 confirmations)                                                            | Seals                       | PTFE / Viton                                                       |
| Anti-Condensation Heater   | 3.5W                                                                                                                | Connection                  | Screwed BSP Taper                                                  |
| Connector                  | Large = EN175301-803 Form A / Small = DIN 43650/C                                                                   | Maximum Pressure            | 1/4" - 1" - 82 Bar<br>1 1/4" - 1 1/2" - 69 Bar<br>2" - 4" - 62 Bar |
| Operating Temperature      | -20°C to +70°C                                                                                                      | Valve Operating Temperature | -25°C to +200°C                                                    |
| Manual Override            | Declutching Handwheel                                                                                               | Ambient Temperature         | -10°C to +50°C                                                     |
| Cover, Body, Cams Material | Polyamide A6                                                                                                        |                             |                                                                    |
| Options:                   | Battery Failsafe<br>Digital Positioning System (4-20mA, 0-10V)<br>180° and 270° operation<br>12V AC/DC power supply |                             |                                                                    |

#### T-port or L-port?

T-port valves provide flow straight through the valve. i.e. 1 > 2 or 2 > 1.

When operated flow is diverted to either 1 > 3 / 3 > 1 or 2 > 3 / 3 > 2

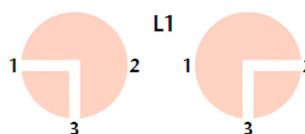
VFE-987



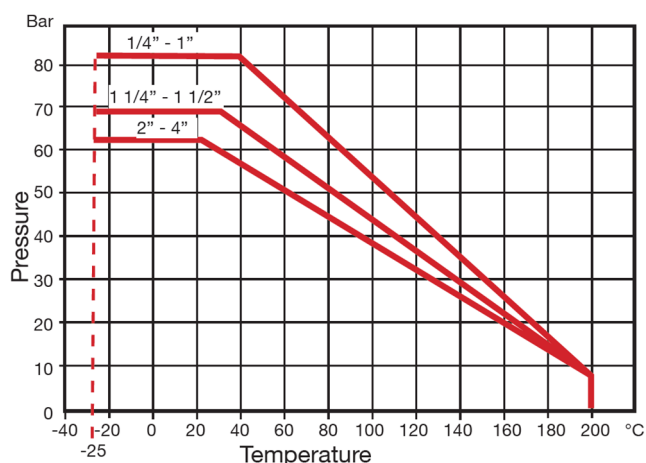
L-port valves are used for diverting or mixing applications.

i.e. 1 > 3 / 3 > 1 or 2 > 3 / 3 > 2

VFE-988



#### Pressure / Temperature:



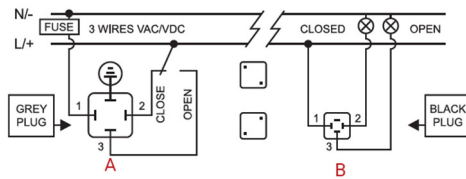
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| LED Status Indication                             |                        |  |
|---------------------------------------------------|------------------------|--|
| No power                                          | LED off                |  |
| Actuator <b>Fully Closed</b>                      | Red Led Solid          |  |
| Actuator <b>Fully Open</b>                        | Green Led Solid        |  |
| <b>Moving</b> Open > Closed                       | Red and Orange Flash   |  |
| <b>Moving</b> Closed > Open                       | Green and Orange Flash |  |
| <b>Torque lim. Engaged</b> Open > Closed          | Red Blinking           |  |
| <b>Torque lim. Engaged</b> Closed > Open          | Green Blinking         |  |
| <b>Manual Mode Engaged</b>                        | Orange Blinking        |  |
| <b>Battery Failsafe Activated</b> Normally Closed | Red Intermittent       |  |
| <b>Battery Failsafe Activated</b> Normally Open   | Green Intermittent     |  |
| <b>Battery Failsafe</b> Needs Charging            | Orange Intermittent    |  |
| <b>Digital Positioning System</b> Stationary      | Blue Solid             |  |
| <b>Digital Positioning System</b> Opening         | Blue and Green Flash   |  |
| <b>Digital Positioning System</b> Closing         | Blue and Red Flash     |  |

## Standard Electrical Connections

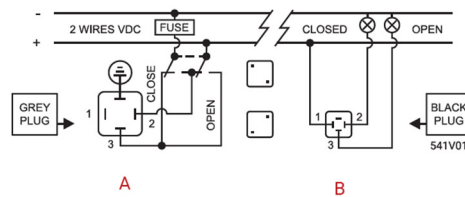
### On - Off V AC

VF-0S - VF-15S

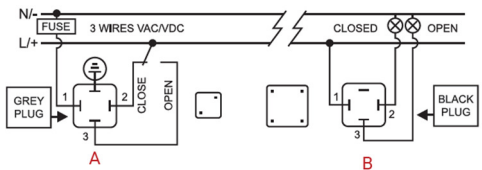


### On - Off V DC

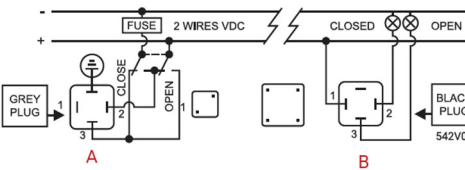
VF-0S - VF-15S



VF-2S - VF-2+S



VF-2S - VF-2+S



A = Power supply plug (Grey plug)

Neutral PIN 1 + Phase PIN 2 = Close Actuator

Neutral PIN 1 + Phase PIN 3 = Open Actuator

Earth/ground connection - Flat PIN

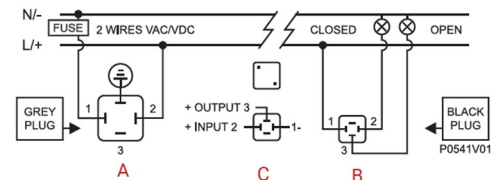
B = Volt free contact plug (Black Plug)

Common PIN 1 + PIN 2 = Close confirmation of position

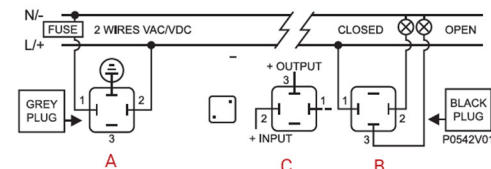
Common PIN 1 + PIN 3 = Open confirmation of position

## Positioner V AC / DC

VF-0S - VF-15S



VF-2S - VF-2+S



A = Power supply plug (Grey plug)

Neutral/Negative PIN 1 + Phase/positive PIN 2 - Power Supply

Earth/ground connection - Flat PIN

B = Volt free contact plug (Black Plug)

Common PIN 1 + PIN 2 = Close confirmation of position

Common PIN 1 + PIN 3 = Open confirmation of position

C = Input/output signal (Black plug)

Negative PIN 1 + positive PIN 2 = Input signal

Negative PIN 1 + positive PIN 3 = Output signal

C = Instrumentation signal **MAX 10V**

**Digital Positioner System:** Earth should not be connected to avoid self adjustment of the actuator position