



## Extreme Series Electrically Operated PVDF Ball Valve

- Remote Isolating Flow in Liquid Systems
- 1/2" to 3", D20-D90
- PTFE Ball Seats, with Choice of O-Rings
- Threaded BSP, Solvent Socket-Metric, Flanged PN6/10
- Antiblock System that Avoids Blockage
- Suitable for Aggressive Media
- Multi Voltage

### Description

Part of the Extreme series of ball valves we offer a PVDF, true double union ended ball valve, with choice of either EPDM or FPM O-Rings with ball seats in PTFE. The valve is fitted onto a powerful electric actuator (series 3003) via a special purpose made mounting bracket, which offers rigidity and strength. The valve has resistance to many inorganic chemicals, aggressive fluids and has excellent high flow characteristics. Connections offered are metric solvent Socket, Threaded BSP and Flanged PN6/10.

The 3003 series electric actuators are available in a composite body, wide range of voltages and control options to suit your specific requirements. Limit switches, optical indicator and manual override are fitted as standard. High quality electrical components and alloy gearing ensure reliability and extended life span. The actuator is supplied with DIN connector.

### Design Advantages

*A ball valve from our Extreme Range, that offers high performance, excellent flow characteristics and a minimal pressure drop. Antiblock stem that avoids ball blockage.*

### Chemical Resistance

*Suitable for Aggressive Media*

### Body Options

*PVC-U / PVC-C / PP-H / PVDF / ABS*

### Easy to Actuate

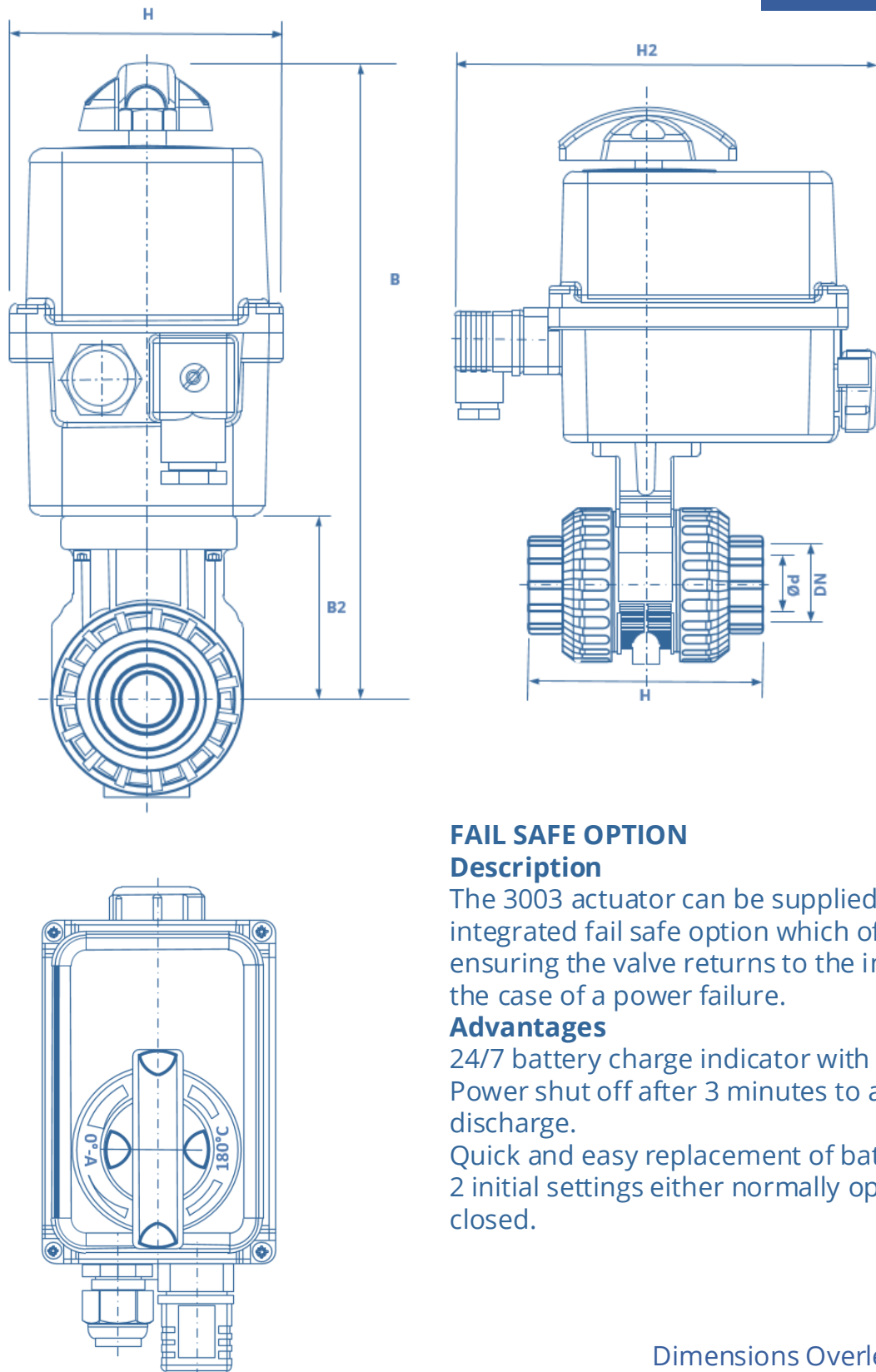
*Our Purpose Built Mounting Kit*

### Technical Information

Body Material	C-U, PVC-C, PP-H, PVDF, ABS
Seal Material	PTFE/EPDM, PTFE/FPM
Media	
Media Temperature	See Temperature Chart
Ambient Temperature	-10°C to + 55°C
Port Connections	True union - weld, threaded, Flanged
Operating pressure	0-10 Bar, 0-16 Bar
Operating Voltage	15-30 V AC 50/60 Hz, 12-48 VDC, 100-240 V AC 50/60 Hz, 100-350 V DC
Voltage Tolerance	
Duty Rating	acc. To IEC34 S4 = 50%
Electrical Connection	Cable Plug to EN175301-803 (supply voltage) Cable glands ISO M20
Protection Class	IP66 with cable plug installed
Rotation Angle	90° ±5°
Rotation Time	see chart
Limit Switches	4 adjustable (2 for motor and 2 additional for feedback)
Material - Actuator	Body-Nylon PA 6.6, G/box St St and PC
Installation	Do not mount the Actuator upside down

### FAIL SAFE

An option of integrated safety battery backup is offered which will return the valve to the initial position in case of power failure.



### FAIL SAFE OPTION

#### Description

The 3003 actuator can be supplied with an integrated fail safe option which offers security, ensuring the valve returns to the initial position in the case of a power failure.

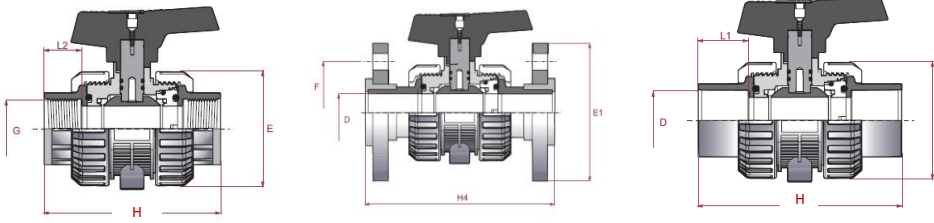
#### Advantages

24/7 battery charge indicator with reporting relay  
Power shut off after 3 minutes to avoid battery discharge.

Quick and easy replacement of battery.

2 initial settings either normally open or normally closed.

Dimensions Overleaf



## Screwed BSP Dimensions

BSP	ACTUATOR	H	B	B2	H2	E	H1
1/2"	BU3003-20	87	202	50	192.1	50	91.83
3/4"	BU3003-20	101	213	61	192.1	61	91.83
1"	BU3003-20	122	222	70	192.1	70	91.83
1 1/4"	BU3003-20	135	233	81	192.1	81	91.83
1 1/2"	BU3003-20	149	248	96	192.1	96	91.83
2"	BU3003-35	174	270	118	192.1	118	91.83
2 1/2"	BU3003-35	216	322.8	146	204.72	146	128
3"	BU3003-60	256	352.8	176	204.72	176	128

## Flanged Dimensions

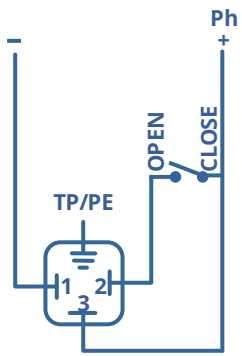
D	ACTUATOR	H4	B	B2	H2	H1	F	E1
20	BU3003-20	95	202	50	192.1	91.83	65	95
25	BU3003-20	105	213	61	192.1	91.83	75	105
32	BU3003-20	115	222	70	192.1	91.83	85	115
40	BU3003-20	140	233	81	192.1	91.83	100	140
50	BU3003-20	150	248	96	192.1	91.83	110	150
63	BU3003-35	165	270	118	192.1	91.83	125	165
75	BU3003-35	185	322.8	146	204.72	128	145	185
90	BU3003-60	200	352.8	176	204.72	128	60	200

## Metric Solvent Socket Dimensions

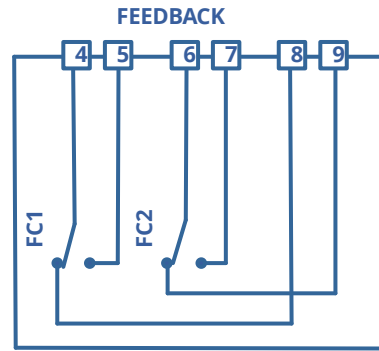
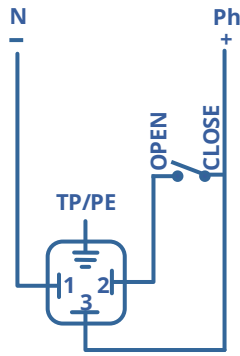
Metric / DIN	ACTUATOR	H	B	B2	H2	H1
20	BU3003-20	87	202	50	192.1	91.83
25	BU3003-20	101	213	61	192.1	91.83
32	BU3003-20	122	222	70	192.1	91.83
40	BU3003-20	135	233	81	192.1	91.83
50	BU3003-20	149	248	96	192.1	91.83
63	BU3003-35	174	270	118	192.1	91.83
75	BU3003-35	216	322.8	146	204.72	128
90	BU3003-60	256	352.8	176	204.72	128

ON / OFF Version

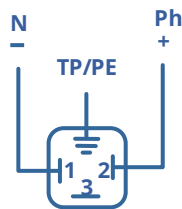
3 Point Mode



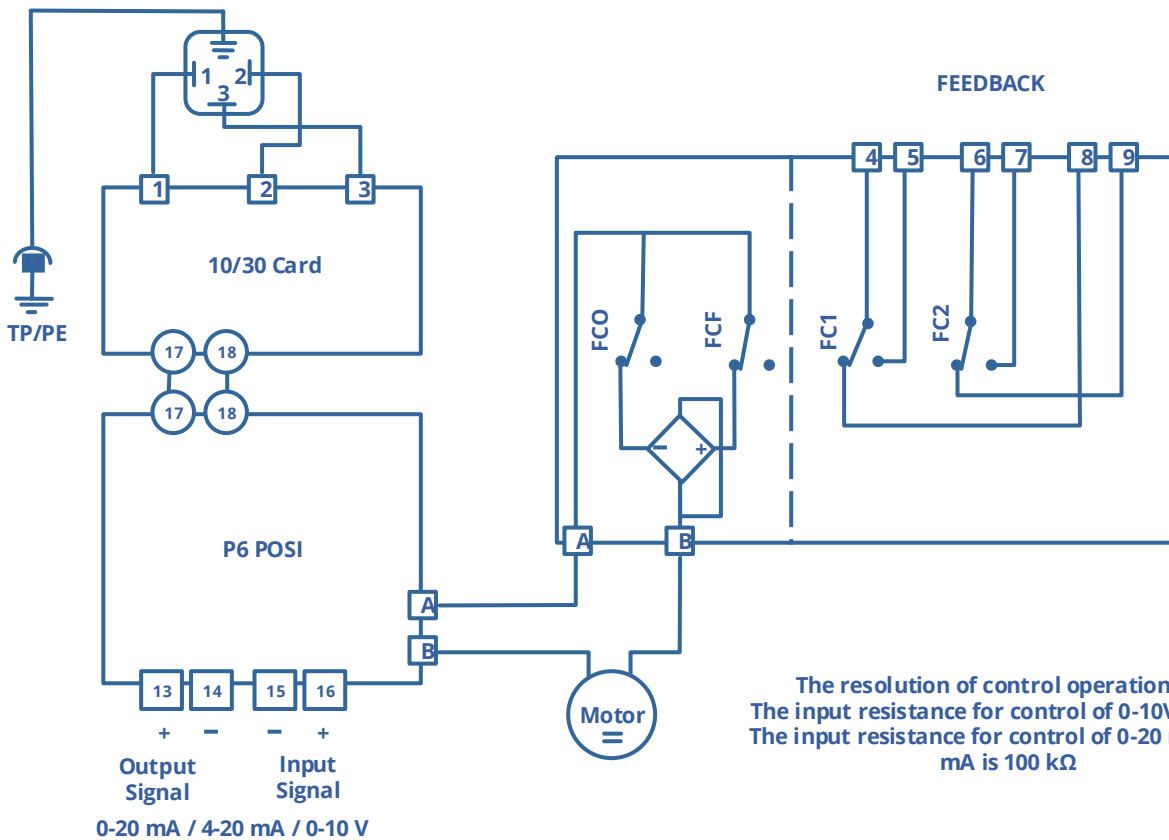
ON / OFF Mode



Version with analog signal input

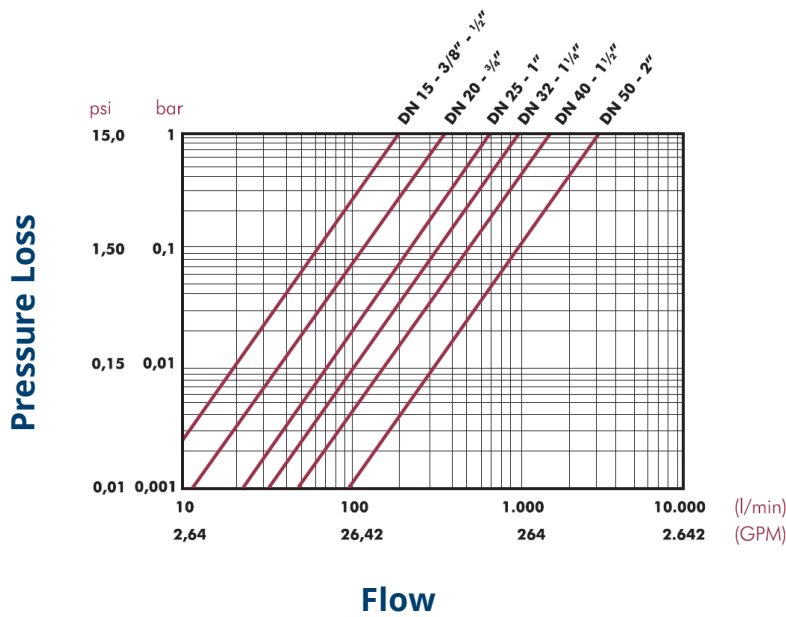
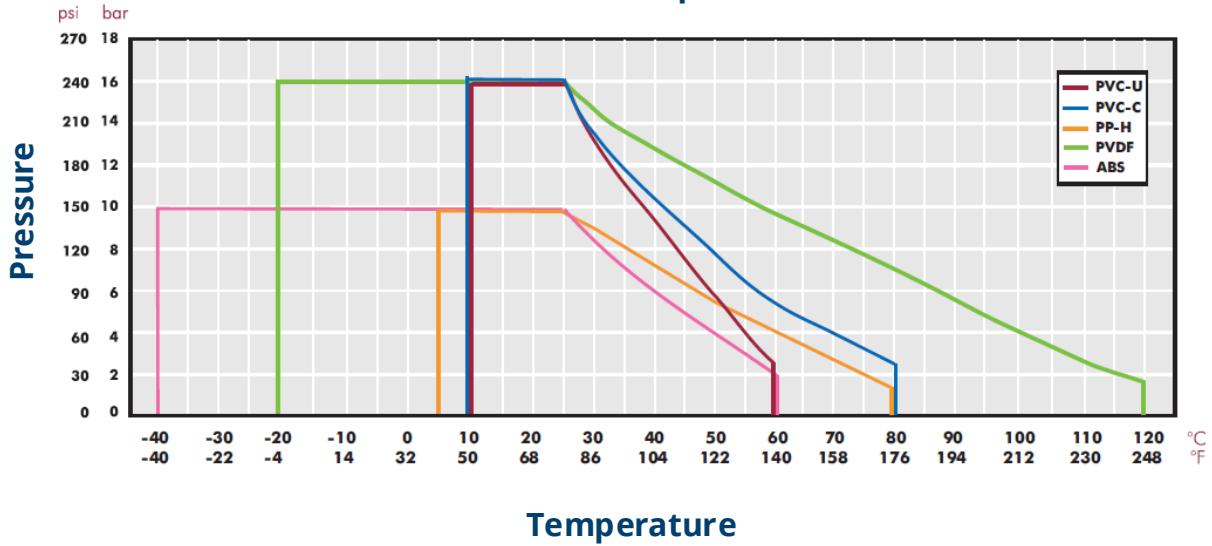


Symbol	Designation
FCO	Open Limit Switch
FCF	Close Limit Switch
FC1	Auxiliary 1 limit Switch
FC2	Auxiliary 2 limit Switch

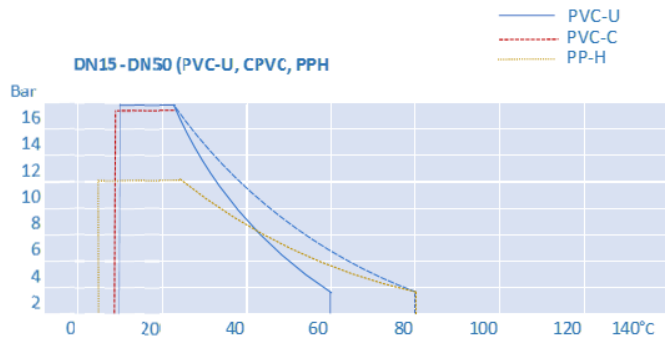


The resolution of control operation is 1°  
 The input resistance for control of 0-10V is 10 kΩ  
 The input resistance for control of 0-20 mA / 4-20 mA is 100 kΩ

Pressure - Temperature



$C_v = K_v100 / 14,28$   
 $K_v100$  (l/min, >p = 1 bar)  
 $C_v$  (GPM, >p = 1 psi)



**PRESSURE /  
TEMPERATURE CHART**

