

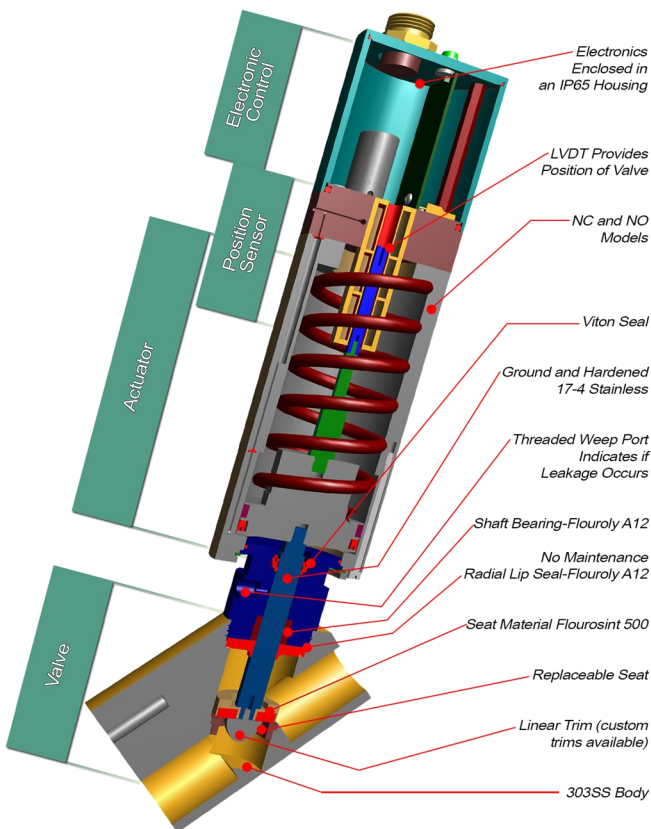
DESCRIPTION / IDENTIFICATION

The Burling Valve Electro-Pneumatic Proportional Flow Valve, BVFCV, employs a parabolic valve plug so that the area of valve opening is proportional to valve position. For

example; if valve position is 50% of full stroke, Cv is 50% of maximum rating. Valve position is electronically closed loop controlled, with an LVDT that provides continuous feedback to the control module. LVDT and control module are integral to the valve actuator.

The BVFCV comes with a monitor output signal. This output is an electrical signal originating for the internal LVDT, 0-1" stroke. The output of this signal is field selectable, 0.5-10Vdc or 4-20mA.

The BVFCV valve features status indicating LEDs for power and TTL. The TTL signal is a conditional on/off signal to use for diagnostic purposes. When the valve is at position, within the deadband, the TTL is active low (0Vdc) and the green LED is ON.



SPECIFICATIONS

ELECTRICAL

SUPPLY VOLTAGE	15-24 VDC
COMMAND SIGNAL	Differential 4-20 mA or 0-10 VDC (Field Selectable)
VALVE POSITION MONITOR	4-20 Ma Sourcing or 0-10 VDC (Field Selectable)
FAILURE MODES†	Normally Closed and/or Hold to Last Position*

MECHANICAL

MAXIMUM WORKING PRESSURE	250 PSIG (17.25 BAR)
ACTUATOR LOADING PRESSURE	Minimum: 80 PSIG (5.5 BAR) Maximum: 120 PSIG (8.25 BAR)
VALVE Cv	0 to 19 Linear to Command
VALVE Kv	0 to 16.4 Linear to Command
END CONNECTIONS	1" NPT Threaded
RESOLUTION	±0.3%
LINEARITY	±5%
WETTED MATERIALS	316 SS & Reinforced PTFE Seals

PHYSICAL

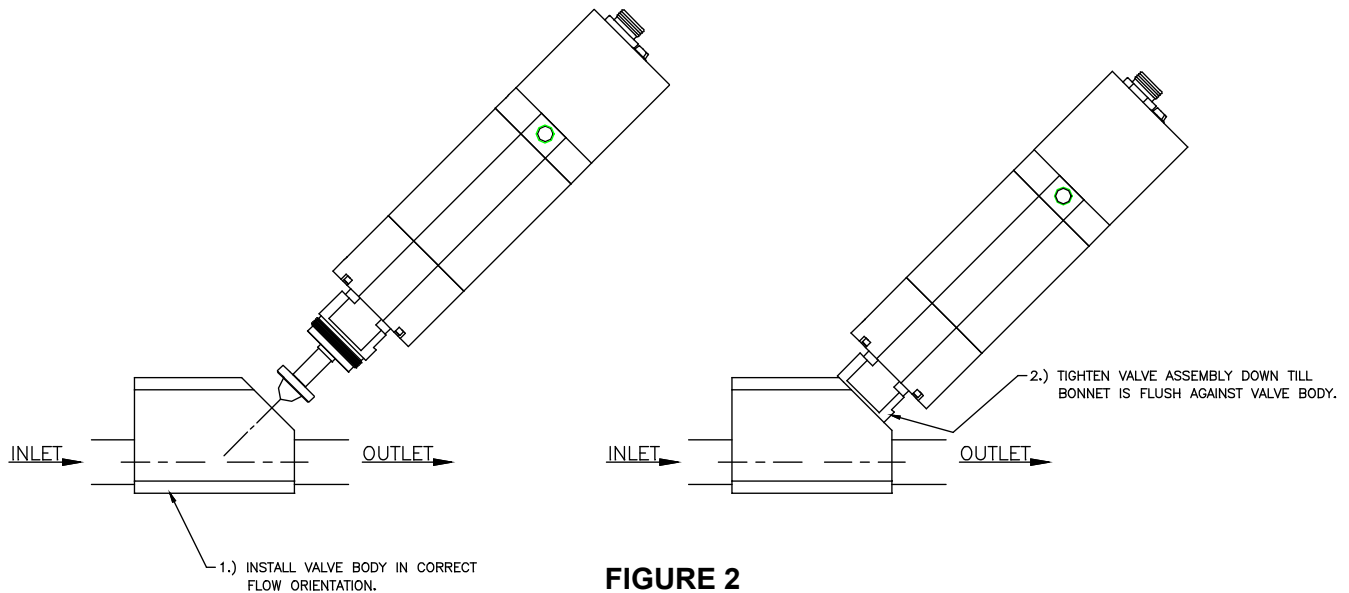
AMBIENT TEMPERATURE	32-158°F (0-70°C)
MEDIA WORKING TEMPERATURE	Maximum: 356°F (0-1800°C)
WEIGHT	10 lbs. (4.5 kg)
ACTUATOR HOUSING RATING	IP65

† On loss of DC electrical power, the unit will hold last position until air leakage causes the valve to move to its home position. On loss of pneumatic supply pressure, the valve will move to its home position.

BVFCV CONNECTION PROCEDURE

Pneumatic Connections:

1. A typical 20 micron (minimum 40 micron) in-line filter is recommended on the pneumatic inlet port "I" of the BVFCV valve. (Figure 1)
2. Connect pneumatic supply pressure, 80 to 120 psig, to the inline filter on the "I" port. (Figure 1)
3. Install valve body in correct flow orientation. (Figure 2)
4. Tighten valve assembly down till bonnet is flush against valve body. (Figure 2)
5. Proceed with electrical connection.



Electrical connections:

1. Ensure all power is off before making any electrical connections.
2. Figure 3 shows the location of the 6 pin electrical connector and figure 4 shows the connector. Table 1 identifies each connection
3. All valves come with a red LED light and a green LED light. The red light on the unit indicates power is supplied to the unit. Green light indicates the valve's pressure status. A bright green glow indicates that desired position has been achieved.

Note: Both current and voltage command units require that both the command (+) and command (-) pins be connected.

**TABLE 1
BVFCV PIN DESIGNATORS**

PIN	WIRE COLOR*	FUNCTION
1	WHITE	COMMAND (+)
2	RED	ANALOG OUTPUT
3	GREEN	DC COMMON
4	ORANGE	TTL OUT
5	BLACK	15-24 VDC POWER
6	BLUE	COMMAND (-)

* H6DC6 POWER CORD COLORS

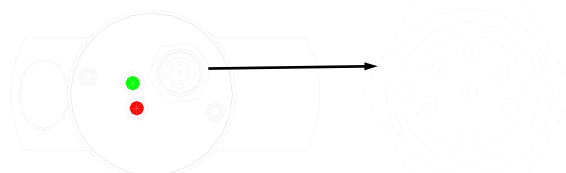
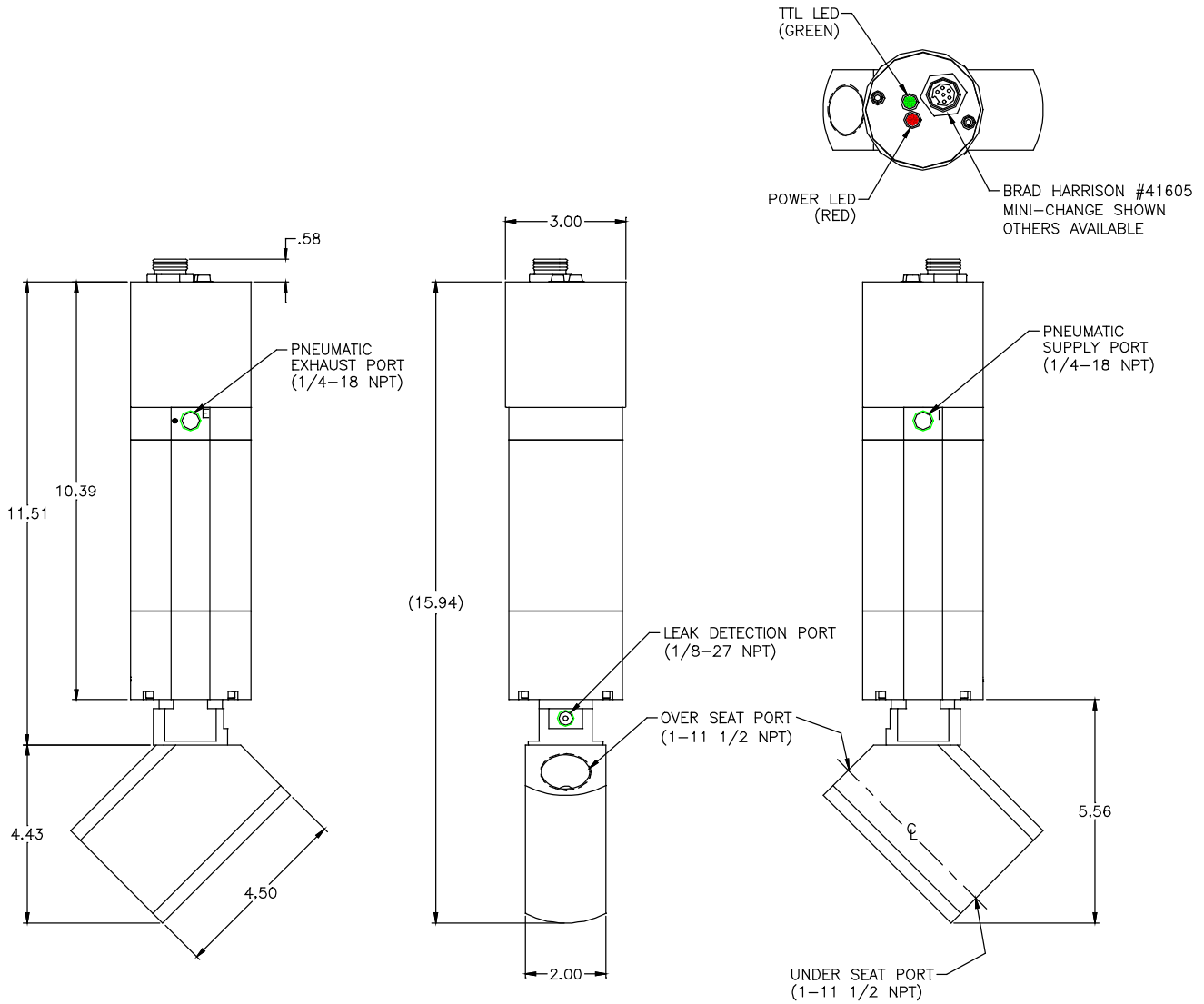


FIGURE 3

FIGURE 4

DIMENSIONS

FIGURE 1



- Integral Closed Loop Positioner
- Integral I/P
- 0.3% Resolution
- Angled Seat Results in Maximum Cv
- Parabolic Valve Trim
- Heavy Duty 303 SS Valve Body
- Replaceable Seat and Trim
- 3/4" DIA Trim with 1" NPT Ports

Example Part Number : **BVFCV 8 E E SS NO OC**

YOUR PART NUMBER : **BVFCV**

Section —> 1 2 3 4 5 Options

1 Port Size

8 1" Port

2 Input Signal Range

E 0 to 10 Vdc

I 4 to 20 mADC (*Sinking*)

K 0 to 5 VDC

V 1 to 5 VDC

3 Monitor Signal Range

X No Monitor

E 0 to 10 Vdc

K 0 to 5 Vdc*

V 1 to 5 Vdc*¹

C 4 to 20 mADC (*Sinking*)

S 4 to 20 mADC (*Sourcing*)

4 Body Material

SS Stainless Steel with Full 1" Seat

S6 Stainless Steel with 3/4" Seat

5 Type

NO Normally Open, Non-Venting

NVO Normally Open, Venting

NC Normally Closed, Non-Venting

NVC Normally Closed, Venting

6 Options

OC Offset to Prevent Leakage

ACCESSORIES

Power Cords

Part#

6' **H6DC6**

12' **H6DC12**

15' **H6DC15**

Repair Kits

Part#

Complete Valve Assembly Repair Kit

BVFCV-8-KIT

Tool Kit for Insertion & Extraction

BVFCV-8-TK

MOUNTING BRACKET

BKT-01 (*wrap-around*)

Burling Valve products are warranted to the original purchaser only against defects in material or workmanship for one (1) year from the date of manufacture. The extent of Burling Valve's liability under this warranty is limited to repair or replacement of the defective unit at Burling Valve's option. Burling Valve shall have no liability under this warranty where improper installation or filtration occurred.

All specifications are subject to change without notice. **THIS WARRANTY IS GIVEN IN LIEU OF, AND BUYER HEREBY EXPRESSLY WAIVES, WARRANTIES OR LIABILITIES, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY OBLIGATION OF BURLING VALVE WITH REGARD TO CONSEQUENTIAL DAMAGES, WARRANTIES OF MERCHANTABILITY, DESCRIPTION, AND FITNESS FOR A PARTICULAR PURPOSE.**

WARNING: Installation and use of this product should be under the supervision and control of properly qualified personnel in order to avoid the risk of injury or death.

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