

PROPORTIONAIR

THE FUTURE OF CONTROL™

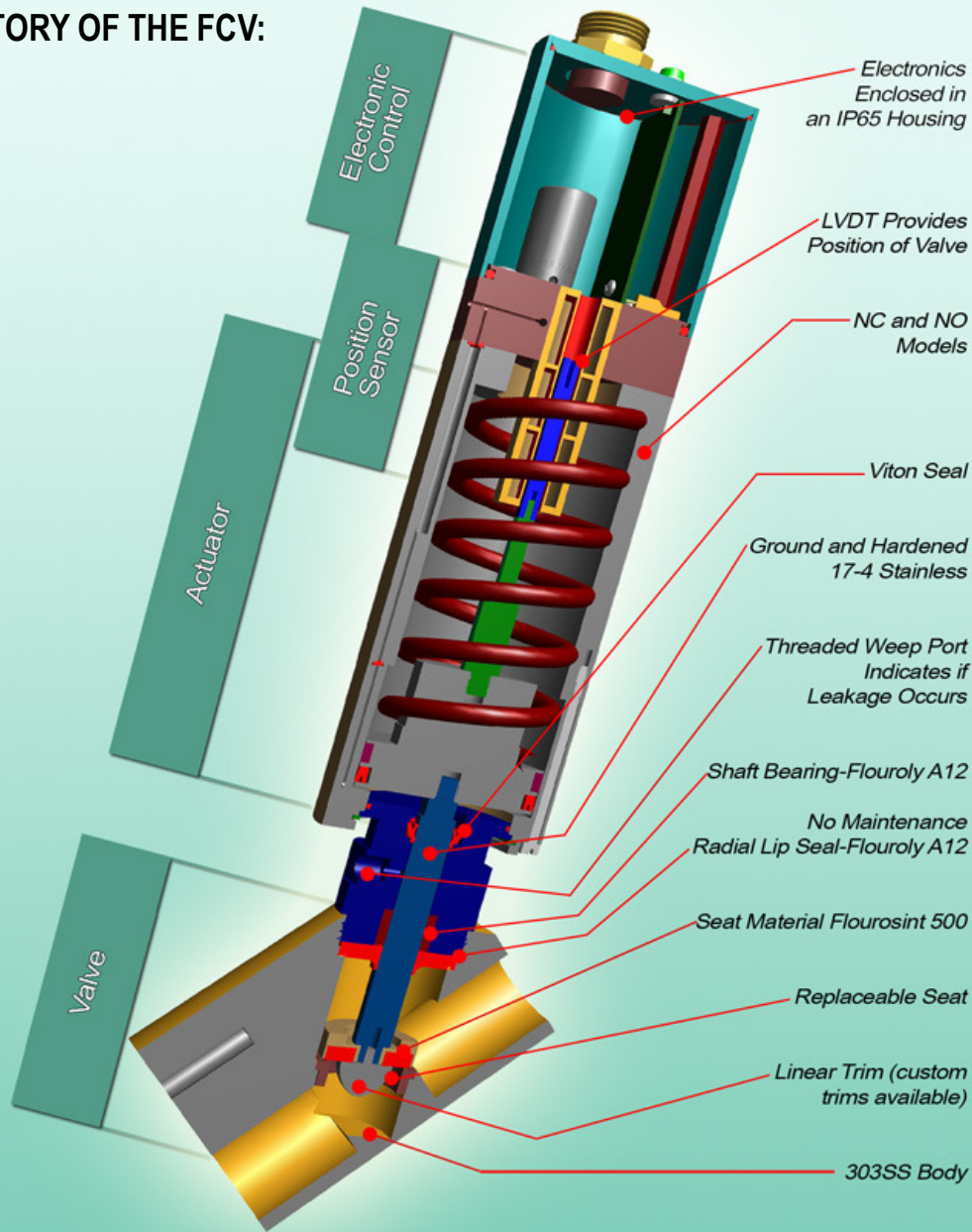


FCV

ELECTRO-PNEUMATIC FLOW VALVE

- * *Integral Closed Loop Positioner*
- * *0.3% Resolution*
- * *Angled Seat Results in Maximum Cv*
- * *Parabolic Valve Trim*
- * *Heavy Duty 303 SS Valve Body*
- * *Replaceable Seat and Trim*

THE INSIDE STORY OF THE FCV:

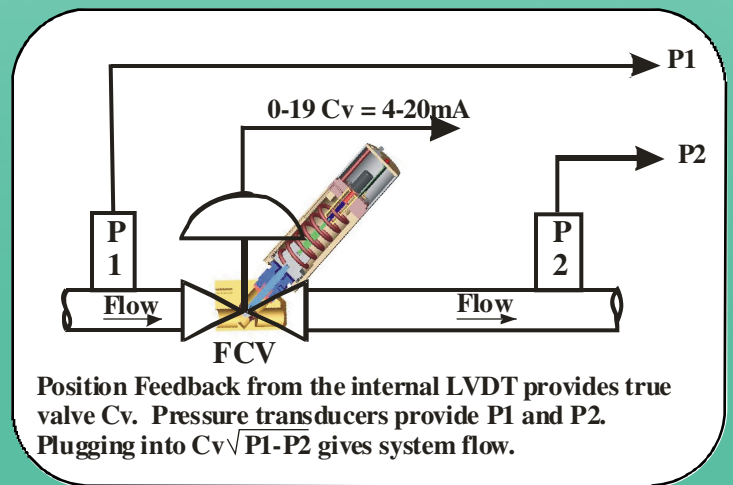


FUNCTIONAL DESCRIPTION

The Proportion-Air Electro-Pneumatic Proportional Flow Valve, FCV, employs a parabolic valve plug so that the area of valve opening (Cv) 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 FCV comes with a monitor output signal. This output is an electrical signal generated by the internal LVDT, that is proportional to the 0-1" stroke. The output of this signal is field selectable, 0-10Vdc or 4-20mA.

The FCV 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 dead-band, the TTL is active low (0Vdc) and the green LED is ON.



GENERAL SPECIFICATIONS

ELECTRICAL	
POWER REQUIREMENT	15-24 VDC @ 250mADC
COMMAND SIGNAL	Differential 4-20mA or differential 0-10VDC (Field Selectable)
VALVE POSITION MONITOR	4-20mA sourcing or 0-10VDC (Field Selectable)
MECHANICAL	
MEDIA WORKING PRESSURE	Maximum: 250 PSIG (17.25 BAR)
ACTUATOR LOADING PRESSURE	Minimum: 80 PSIG (5.5 BAR), Maximum: 120 PSIG (8.25 BAR)
VALVE Cv Kv	0 to 19 Linear to Command 0 to 16.4 Linear to Command
END CONNECTIONS	1" NPT Threaded
RESOLUTION	0.3% Typical
LINEARITY	+/- 5%
WETTED MATERIALS	316 SS and Reinforced PTFE Seals
PHYSICAL	
MEDIA WORKING TEMPERATURE	Maximum: 356°F [180°C]
AMBIENT TEMPERATURE	32-158°F [0-70°C]
WEIGHT	10 lbs [4.5 Kg]
ACTUATOR HOUSING RATING	IP65

OPERATING MODES'

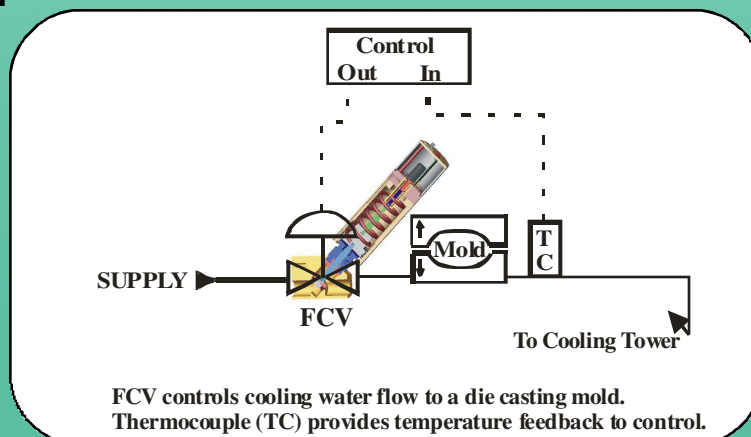
	FCVxxxxxNVC (normally closed, venting)	FCVxxxxxNC (normally closed, non-venting)	FCVxxxxxNVO (normally open, venting)	FCVxxxxxNO (normally open, non-venting)
POWER LOSS	Closes	Hold	Opens	Hold
AIR LOSS	Closes	Closes	Opens	Opens
0VDC or 4mA	Closed		Fully Open	
10VDC or 20mA	Fully Open		Closed	

*Operating modes indicate the function of the valve during normal use and operation only. Operating modes indicated should not be relied upon for safety.

Venting: upon loss of power, loading pressure on actuator is relieved to atmosphere allowing the valve spring to return to its normal operating mode.

Non-Venting: upon loss of power, pressure is trapped causing the actuator to hold loading position until loading pressure is decayed.

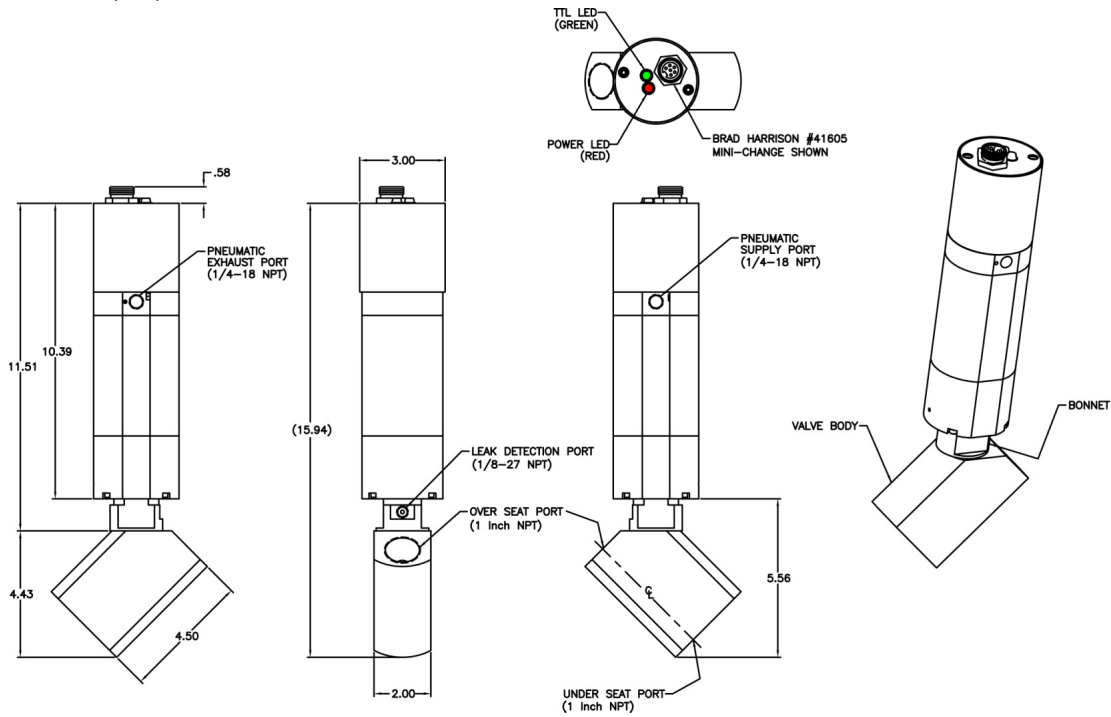
TYPICAL APPLICATION



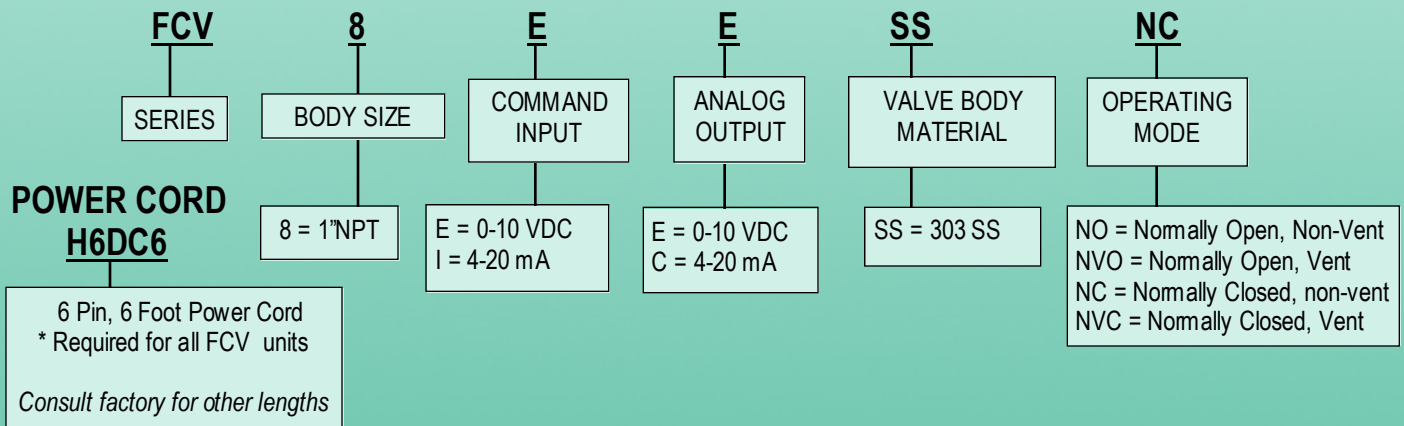
DIMENSIONS

DIMENSIONS ARE FOR REFERENCE USE ONLY

Inches (mm)



ORDERING INFORMATION



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WE MAKE ONE PRODUCT THOUSANDS OF WAYS

Proportion-Air 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 Proportion-Air's liability under this warranty is limited to repair or replacement of the defective unit at Proportion-Air's option. Proportion-Air 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, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY OBLIGATION OF PROPORTION-AIR 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.