

S-FCD-Series (Space Flow Control Devices) MODEL S-FCD-GP

ASCENT Propellant Flow Control Devices

DESCRIPTION

Flight Works S-FCD-Series (Flow Control Devices) offer the highest level of quality, reliability, and versatility in the Flight Works product catalog. The S-FCD-GP model uses precision-machined parts and is designed for spaceflight applications to reliably produce exceptional performance. The flow control devices offer reliable performance while the tight tolerances of internal components raise the performance to optimal levels.



STANDARD SPECIFICATIONS

Operating Pressure	.....	Up to 500 psig
Proof / Bust Pressure	.....	Up to 750 psig / (TBC) 1250 psig
Mass (Max)	.....	Configuration Dependent
Envelope & Interfaces	.....	see page 3
Seals	.....	static seals (no dynamic seals)
Permissible Fluid	.....	ASCENT, gaseous helium, gaseous nitrogen, deionized water, isopropyl alcohol
Wetted Materials	.....	Ti-6Al-4V, Ti (Grade 2), FKM
Qualified Temperature	.....	(TBC) non-operational: -15°C to +60°C (TBC) operational/fluid: +5°C to +40°C
Qualified Environments	.....	(TBC) GEVS 14.1 g _{rms}

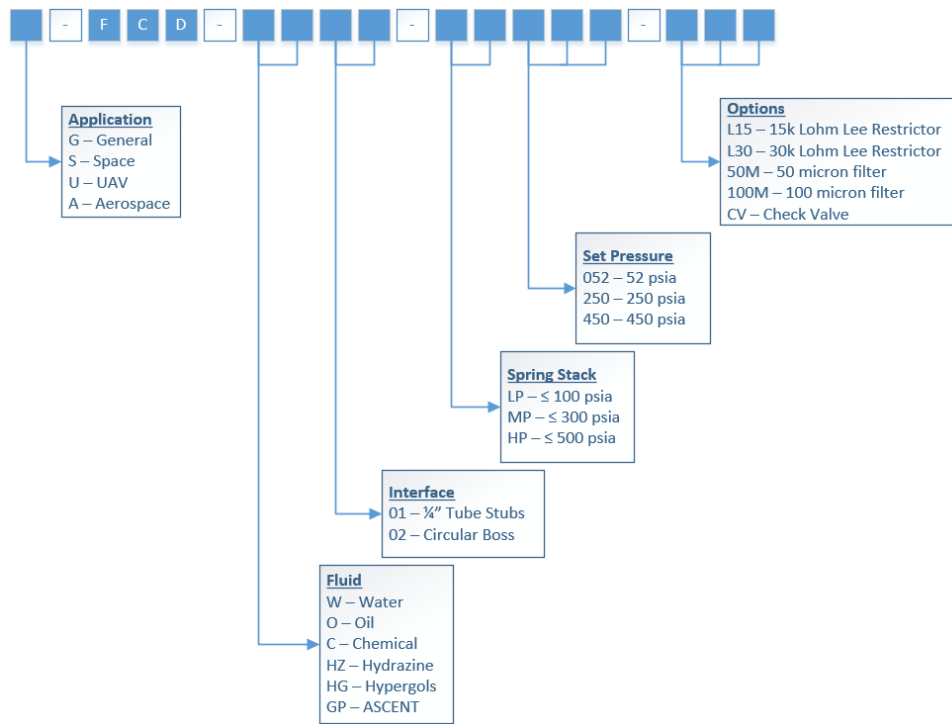
APPLICATIONS

This device is a flow control device that has been designed for spaceflight applications. It features a level of versatility that would also allow for use in a wide field of applications with vibration or low atmospheric pressure/vacuum.

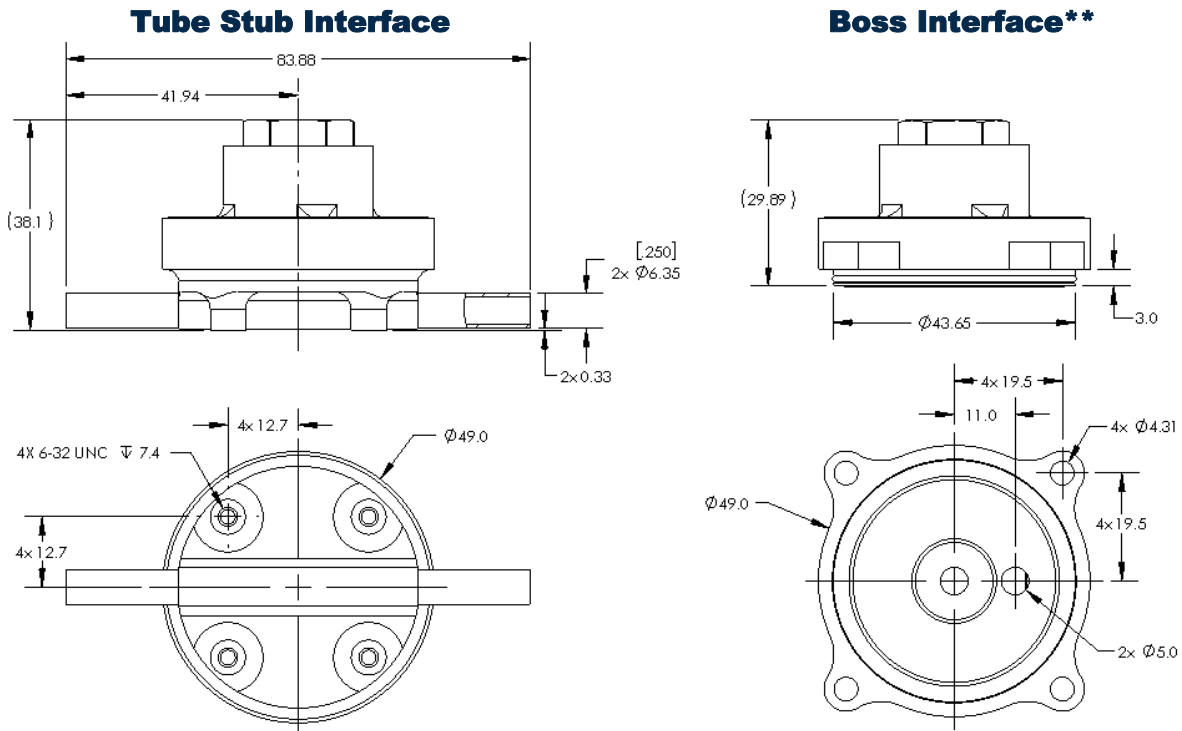
Specifications and data in this document are for informational purposes only, may vary depending on the system in which the device is integrated, and are subject to change without notice. Flight Works, Inc. makes no warranties concerning the suitability of this device for a particular application; as such, it is the customer's responsibility to determine the safety and technical suitability of the system. Refer to the User Guide for more details on handling, setup, operation, and more. This flow control device is a precision unit, built and assembled as a complete product. Opening, adjusting, or dropping the device can permanently damage assembly integrity. Please contact Flight Works, Inc. by phone or email with any further questions regarding this product or its function.

S-FCD-GP

Part Number Identification*



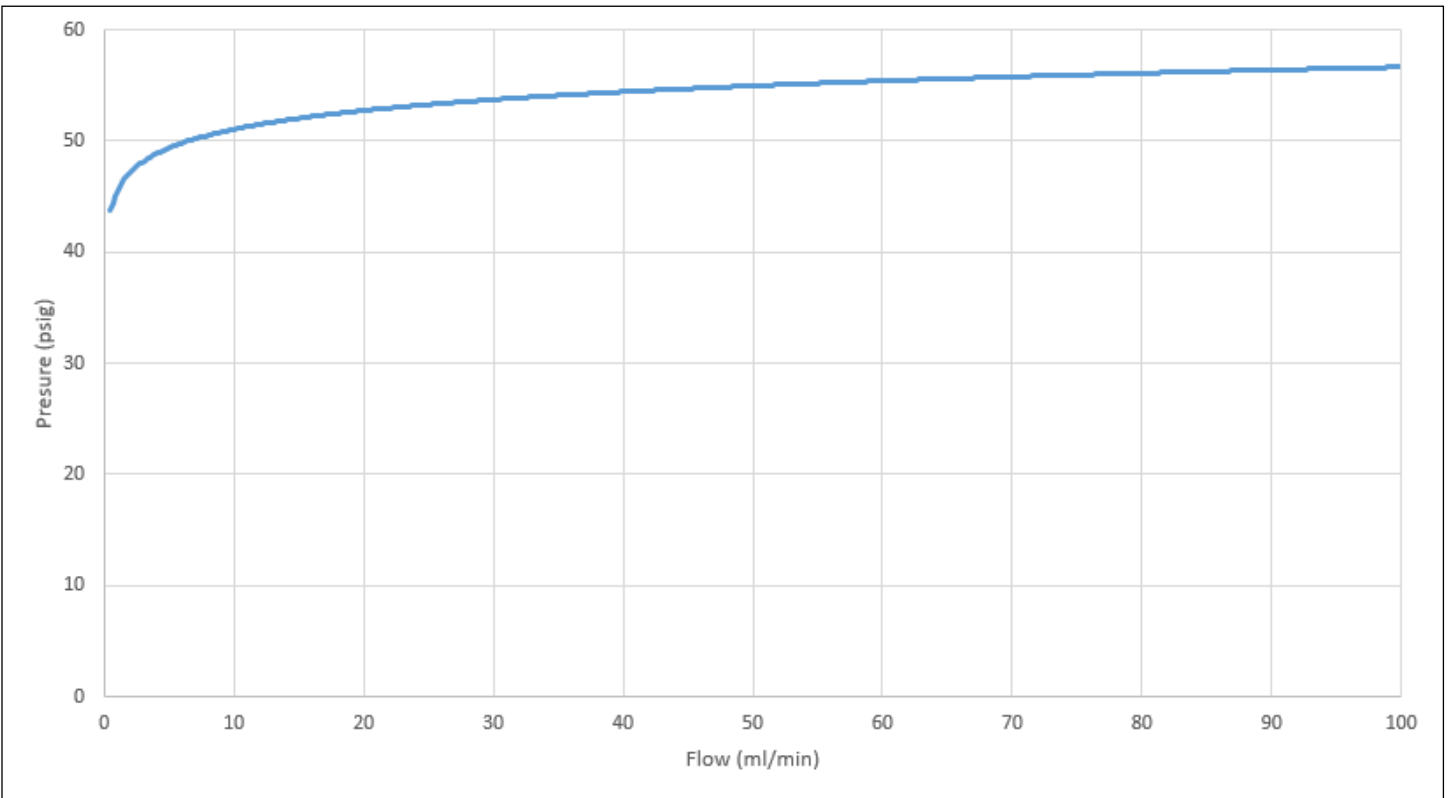
Example Envelopes (dimensions in millimeters except the ones in brackets)



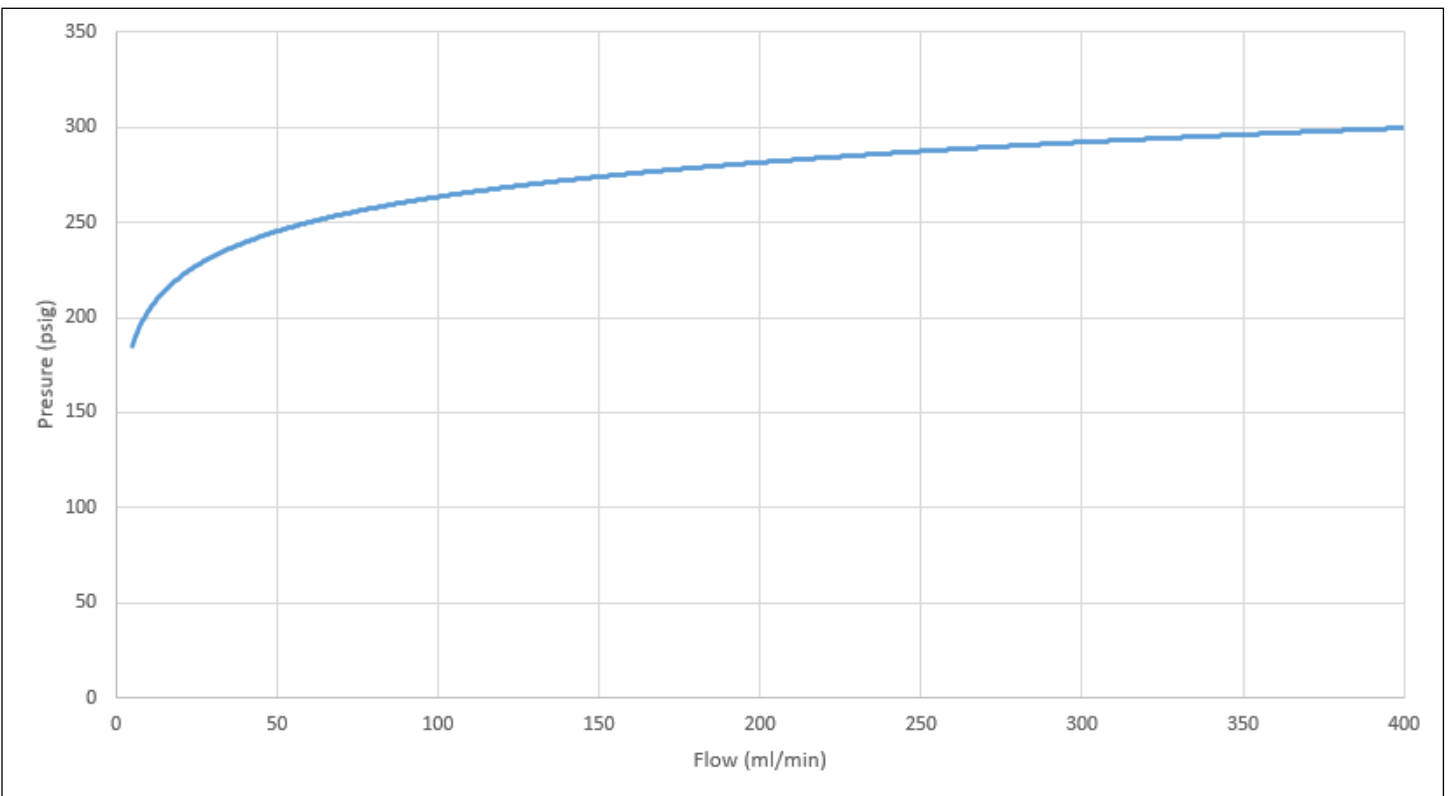
*Please inquire at info@flightworksinc.com for additional information regarding alternative configurations available

**Please inquire at info@flightworksinc.com for additional information regarding system side interface and static seals for boss mount configuration

Test Performance w/ H2O: 22 ml/min @ 52 psig Set Point***



Test Performance w/ Ethylene Glycol: 400 ml/min @ 300 psig Set Point***



***Please inquire at info@flightworksinc.com for additional information regarding flow and pressure characteristics with different fluids