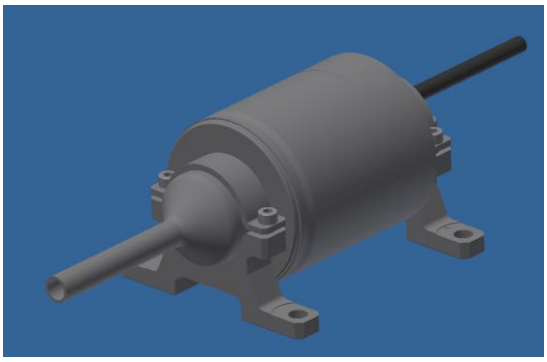
BD SENSORS®
pressure measurement

SP430 – 325 bar abs.



BD Pressure Transducer main function is to measure a precise static pressure over the full pressure range in the propellant and pressurant tanks.
It will be used for failure detection, thruster performance determination and propellant gauging.

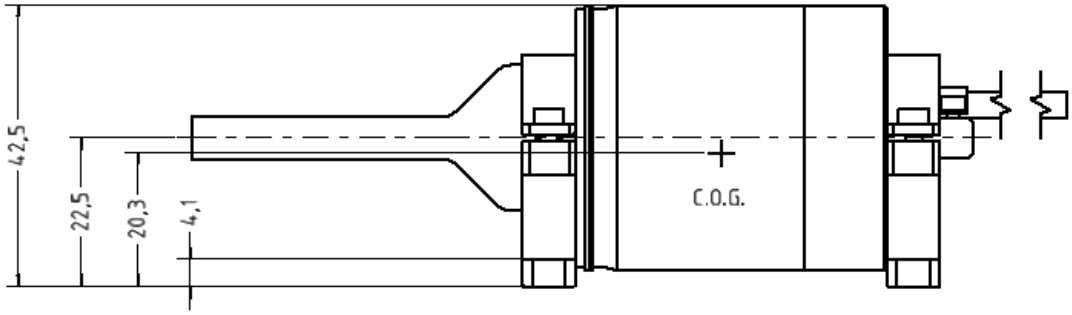
Specifications

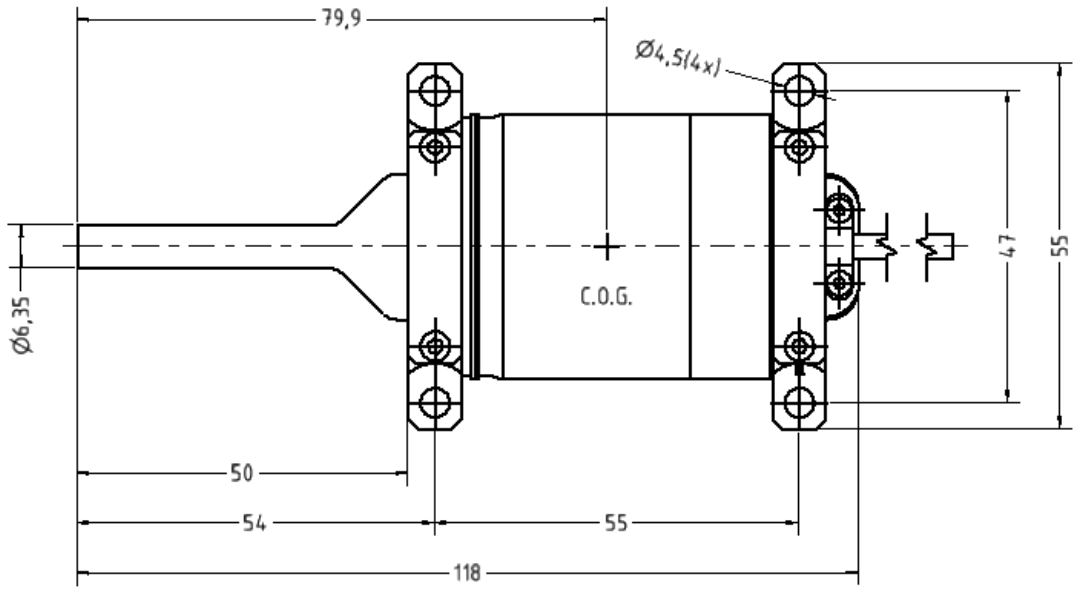
Medium Compatibility	MMH, MON, Gaseous Helium, Gaseous Xenon O_2, deionized H_2O, H_2, N_2, CH_4, CO + CO_2, Ar, Kr, Freon, IPA
Operating pressure (MEOP)	0 ... 325 bar abs. MEOP ... Maximun expected operating pressure
Acceptance level (PROOF)	≥ 1.5 x MEOP
Qualification level (BURST)	2.5 x MEOP
Internal/External Leakage	< 10^{-6} cm^3/s (standard conditions) GHe
Measurement accuracy	± 0.3 % FS (Beginning of Life) ± 0.4 % FS (End of Life)
Mass	< 200 g (without cable)
Power Supply Voltage	12 to 28,5 V Single or Dual
Power Consumption	< 150 mW
Output	1 ... 5 V (single power supply) 0 ... 5 V (dual power supply)
Materials (Wetted Parts)	Titanium (Ti-6Al-4V)
Operations Life	10 Years

Environmental Characteristics

Sine Vibration	5-20 Hz: 15mm 0-Peak, 20-100 Hz 24g
Random Vibration	20 – 100 Hz: Increase 3dB/Octave to $2g^2$/Hz 100 - 300 Hz: Constant at $2g^2$/Hz 300 – 2000 Hz: Decrease at -6 dB/Octave 120 s each Axis, Overall 31.82g RMS
Shock	100Hz: 60g 2000Hz: 3000g 10000Hz: 3000g
Operating Temperature	-20 °C ... 75 °C
EMC Requirements	According MIL-STD-461E
Radiation Resistance	80 kRAD(Si) EEE-parts

MECHANICAL DIMENSIONS





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