

SENTRY SERIES POU GAS FILTERS

1.5 nm FILTRATION

mott
MISSION CRITICAL PRECISION

PENTA[®] NICKEL FILTER MEDIA

DESCRIPTION

Mott High Purity Gas Filters provide 9-log filtration of particles down to 0.0015 μm resulting in particle-free gas. The Sentry is a line of cost effective all-metal Ultra High Purity (UHP) gas filters that utilizes the Mott Patented Penta nickel media.

APPLICATIONS

UHP gas sticks for Semiconductor, LED, Photovoltaic and MEMS Equipment Hookup. UHP filtration in valve manifold boxes, gas cabinets, tool isolation gas boxes, on-board gas delivery boxes or any process requiring ultra high purity particle removal.



OPERATING CONDITIONS

- » Maximum Operating Pressure: 3000 psig (207 barg)
- » Maximum Operating Temperature for Inert Gas: 450°C
- » Maximum Differential Pressure: 500 psid (34.5 bar)

MATERIALS

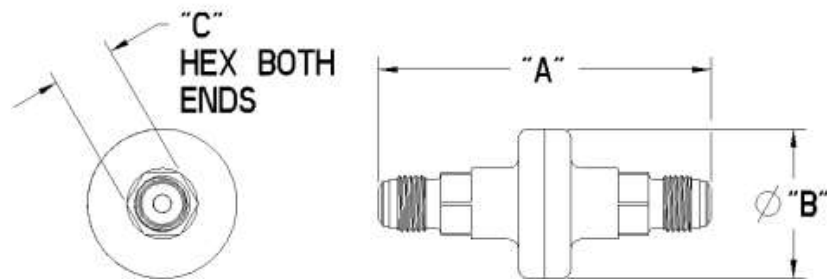
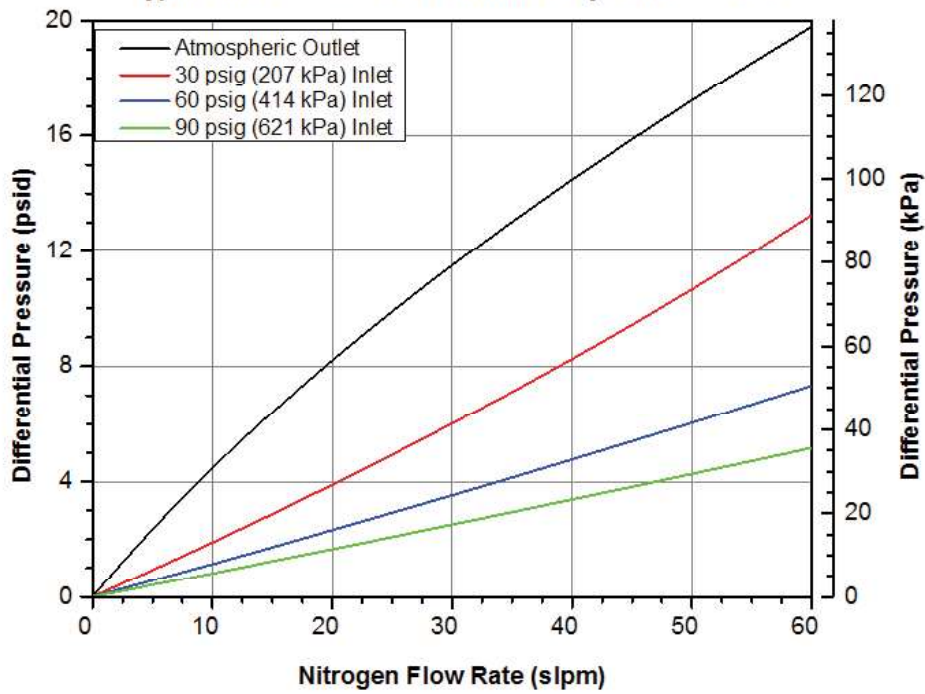
- » Hardware: 316L SS
- » Filter Medium: Penta Nickel
- » Wetted Hardware Surface Finish: 10 Ra

SPECIFICATIONS

Particle Removal Size:	$\geq 0.0015 \mu\text{m}$
Filter Efficiency (Log Reduction Value):	≥ 9 LRV (99.9999999% reduction in particles). Confirmed at the most penetrating particle size of 0.08 μm per SEMI F38-0699 test method
Helium Leak Rating:	1×10^{-9} atm cc/sec
Moisture Contribution:	<10 ppb after 1 hour at low-flow ambient purge per SEMI F27 test method
Total Hydrocarbons:	Below detectable limits per SEMASPEC 90120396B test method
Particle Shedding:	Zero particle contribution above background (<1 particle/ft ³) per SEMI F43-0308 test method

FLOW DATA

Mott SEN331N Flow Rate vs. Differential Pressure
Typical Flow Curves as a Function of System Pressures



ORDERING INFORMATION

Part Description	Part Number	Fitting Type	A Inches/mm	B Inches/mm	C Inches/mm
SEN331NFF11	6815001	1/4 inch Male/Male Face Seal	3.31/84.0	1.50/38.1	0.625/15.9
SEN280NFP11	6815005	1/4 inch Male/Female Face Seal	2.81/71.3	1.50/38.1	0.625/15.9
SEN112NTT11	6815004	1/4 inch Butt Weld Tube Stubs	1.12/28.4	1.50/38.1	N/A

*Custom designs and fittings available. Contact a Mott representative for more information.