

Axis 1/8" Orifice Mini Gas Valves

 AXISMEASUREMENT.COM



 **Valves**

Catalog number: AX2N6G Rev. 1
March, 2025

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Axis 1/8" Orifice Mini Gas Valves

Description

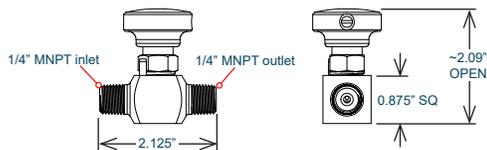
The AX2N6G is the perfect valve choice for sampling and calibration. It features a double O-ring and PTFE backup ring design below the threads, blowout proof stem, back seating capability, and a unique pancake seat design for pressures up to 6000 PSIG. The valves are available with FNPT & MNPT inlet and outlet connections and optional quick calibration connections. It's robust design lasts 10x longer than average mini valves and has been shown to be superior in holding hard to contain gases such as helium.



Features and Benefits:

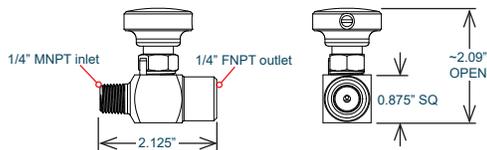
- 100% testing ensures blow out proof stem and seat tightness
- Double O-ring packing below stem threads prevents corrosion
- Stem threads formed by rolling provide improved strength and smooth operation
- Stem flat tip and the soft seat forms a globe pattern seal to ensure zero leakage at seat for proper calibration
- Body to bonnet seal in compression isolates the bonnet threads from the process fluid to prevent corrosion and tensile breakage
- Unique soft seat design allows pressure up to 6000 PSIG
- Bodies and bonnets are lot code stamped to provide full material traceability

Male NPT x Male NPT Configuration



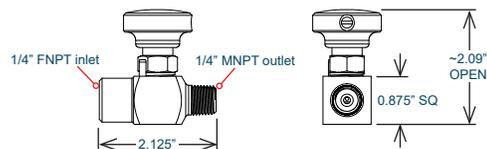
Specification	
Model	AX2N6G4M4MXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" male NPT
Outlet	1/4" male NPT

Male NPT x Female NPT Configuration



Specification	
Model	AX2N6G4M4PXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" male NPT
Outlet	1/4" female NPT

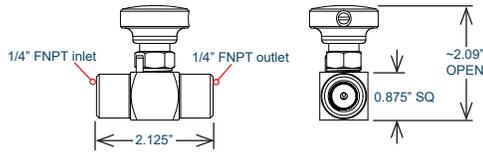
Female NPT x Male NPT Configuration



Specification	
Model	AX2N6G4P4MXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" female NPT
Outlet	1/4" male NPT

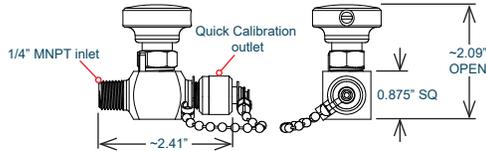
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Female NPT x Female NPT Configuration



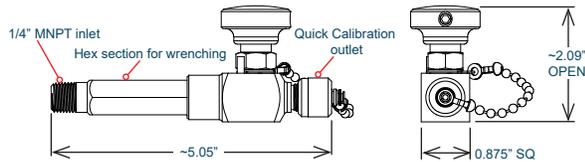
Specification	
Model	AX2N6G4P4PXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" female NPT
Outlet	1/4" female NPT

Male NPT x Quick Calibration Fitting Configuration



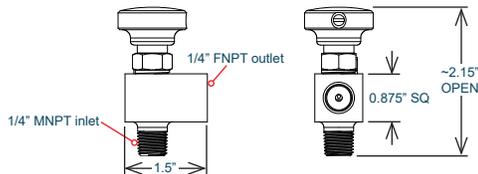
Specification	
Model	AX2N6G4MQXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" male NPT
Outlet	Quick Calibration fitting

Extended Male NPT x Quick Calibration Fitting Configuration



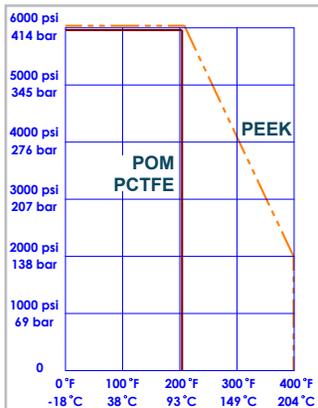
Specification	
Model	AX2N3L6G4MQXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" male NPT
Outlet	Quick Calibration fitting

Male NPT x Female NPT Angle Configuration



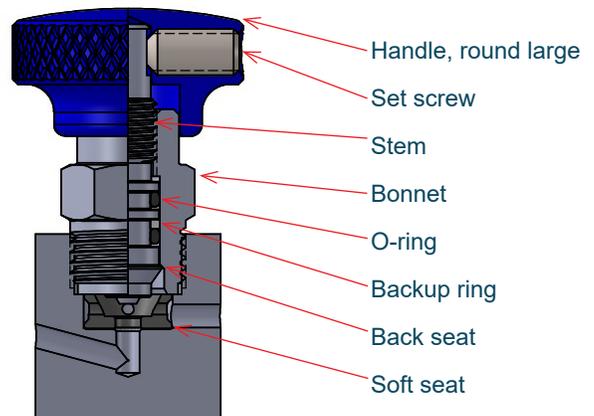
Specification	
Model	AX2NA6G4M4PXXXX
Orifice	1/8"
Rating	6000 psi at 100°F, 414 bar at 38°C
Seat	Soft seat, POM, PEEK, PCTFE
Packing	O-ring, FEPM, or, FKM
Inlet	1/4" male NPT
Outlet	1/4" female NPT

Pressure vs. Temperature Chart for Soft Seat Materials



Note: soft seat material ratings are based on manufacturers' specifications, for reference only.

1/8" Bore Bonnet Configuration



Axis 1/8" Orifice Mini Gas Valves

Product Numbering

Brand	Orifice	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Option
AX	2 1/8"	N6G Gas valve	4 1/4"	M Male NPT	4 1/4"	M Male NPT	SS ASTM A182 Gr. 316	A O-ring FEPM	D Soft seat POM	RLR Round large red handle
		NA6G Gas valve, angle body		P Female NPT		P Female NPT	CS ASTM A105 (Zinc plated)	V O-ring FKM	P Soft seat PEEK	TG 304 SS TAG (note 1)
		N3L6G 3" extended body			(empty for Q outlet type)	Q Quick calibration			K Soft seat PCTFE	

Example: model number **AX2N6G4M4PSSAD** is interpreted as,
Gas valve, 1/8" orifice, 1/4" male NPT inlet, 1/4" female NPT outlet, ASTM A182 Gr. 316 material for all pressure containing components, FEPM O-ring packing, POM soft seat.

Note1: 32 Character limit laser marked.

Packing and Seat Temperature Rating

Code	Component	Material	Minimum Temperature	Maximum Temperature
A	O-ring	FEPM	-4°F [-20°C]	400°F [204°C]
V	O-ring	FKM	-15°F [-26°C]	400°F [204°C]
D	Seat	POM	-40°F [-40°C]	200°F [93°C]
P	Seat	PEEK	-40°F [-40°C]	400°F [204°C]
K	Seat	PCTFE	-100°F [-73°C]	200°F [93°C]

Design Standards

Standard	Description
ASME B31.1	Power Piping
ASME B31.3	Process Piping
ASME B16.34	Valves - Flanged, Thread, and Welding End
ISO 5208	Industrial valves - Pressure testing of metallic valves
API 598	Valve Inspection and Testing
MSS SP-105	Instrument Valves for Code Application
MSS SP-25	Standard Marking Systems for Valves, Fittings, and Flanged Unions
IEC 61518	Mating dimensions between differential pressure (type) measuring instruments and flanged-on shut-off devices up to 413 bar (41,3 MPa)
ISO 10474	Steel and steel products - Inspection documents

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