



3700, 3800, 3900 Series

Forged Body, Integral Bonnet Needle Valves

Offered in four different body materials, this group of valves can handle a wide range of general purpose liquid and gas applications. Six types of stem tips are available, including two styles of vee-points.



Typical Applications

- Instrument air lines
- Sampling
- Gas chromatography
- Test stands
- Cylinder valves

Technical Data

BODY*	316 stainless steel, Monel®, carbon steel, brass
MAXIMUM OPERATING PRESSURE	316 stainless steel, Monel®, carbon steel 5000 psig @ 70° F (345 Bar @ 21° C) Brass 3000 psig @ 70° F (207 Bar @ 21° C)
OPERATING TEMPERATURE RANGE	Metal stem tip -65° to +450° F (-54° to +232° C) PCTFE stem tip -20° to +250° F (-29° to +121° C)
ORIFICE SIZES	0.060" to 0.312" (1.5 mm to 7.9 mm)
Cv FACTORS	0.07 to 1.10

* Consult factory for other materials

Features & Benefits

Safety

- Integral bonnet provides differential thread pitch between stem threads and packing nut thread preventing accidental stem removal

Stem tip options

- A choice of PCTFE, metal, vee-point, blunt vee-point, or regulating stem tips

Helps eliminate fugitive emissions

- Dyna-Pak® packing provides a leak-tight seal with low operating torque in deep vacuum or high pressure applications

Dependability

- All valves are tested for bubble-tight leakage at both seat and packing

Installation variety

- Broad selection of male NPT, female NPT, and HOKE Gyrolok® fractional or metric tube fitting connections

Handle options

- Color-coded handles are available for identifying system fluids

Panel mounting available

- All models can be ordered for panel mounting

Easy maintenance

- All models can be panel mounted without packing disruption. Packing can be adjusted without removal from panel
- Special High Tolerance NPT Thread

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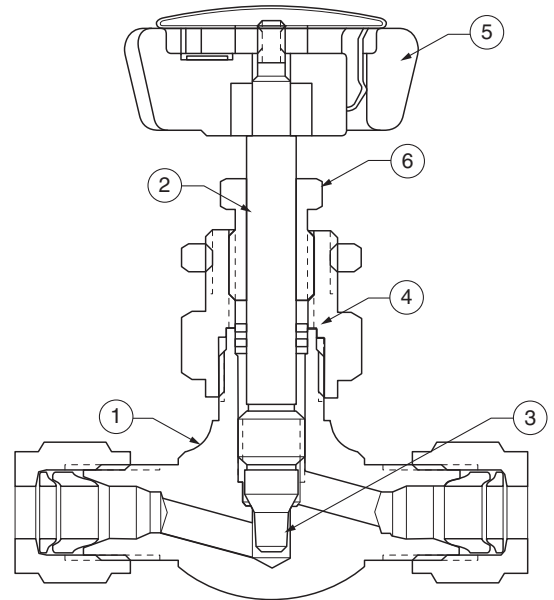
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needle valves

3700, 3800, 3900 Series

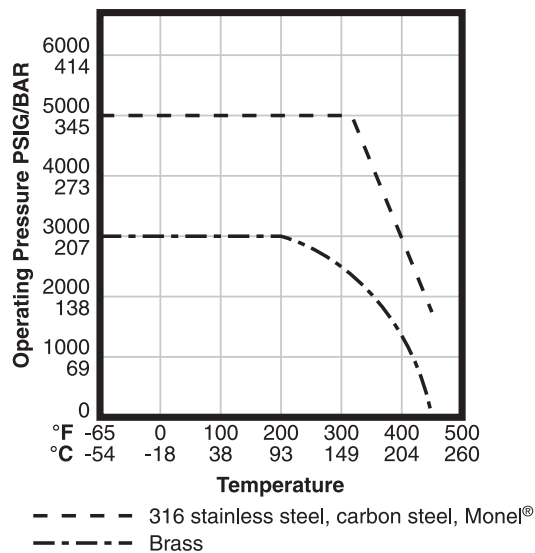
Materials of Construction

	DESCRIPTION	BRASS	316 STAINLESS STEEL	CARBON STEEL	MONEL®
1	Body	Brass	316 stainless steel	Carbon steel	Monel®
2	Stem	316 stainless steel	316 stainless steel	316 stainless steel	Monel®
3	Stem tip soft hard	PCTFE 17-4PH stainless steel	PCTFE 17-4PH stainless steel	PCTFE 17-4PH stainless steel	PCTFE Monel®
4	Stem packing	TFE/brass wafers	TFE/316 stainless steel wafers	TFE/316 stainless steel wafers	TFE/Monel® wafers
5	Handle	ABS	ABS	ABS/aluminum	ABS
6	Panel mounting nut	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass

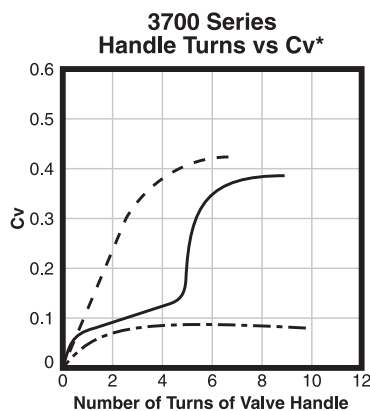


Shown with regulating stem tip

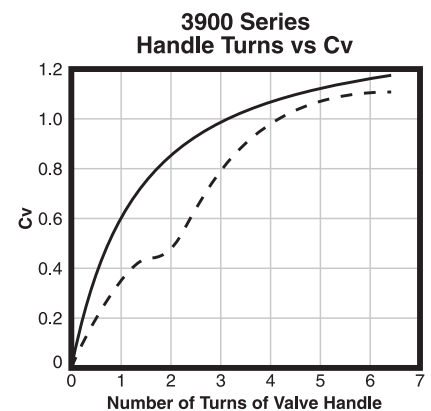
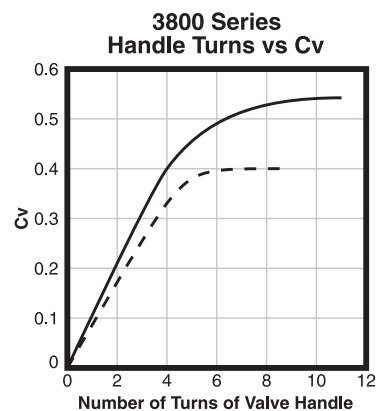
Pressure vs. Temperature Curves



Flow Curves



* No data currently available for blunt vee-point stem tip



3700, 3800, 3900 Series

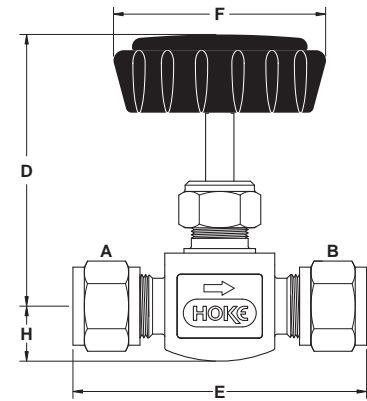
Dimensions

3700 Series: Globe Pattern

Vee-point stem tip

INLET A	OUTLET B		D	E	F	H
⅜" male NPT	⅜" male NPT	inch	2⅜	1¾	1⅞	2⅝
		mm	56	44	37	10
¼" Gyrolok®	¼" Gyrolok®	inch	2⅜	2⅜	1⅞	2⅝
		mm	56	60	37	10
¼" male NPT	¼" male NPT	inch	2⅜	1¾	1⅞	2⅝
		mm	56	44	37	10

Dimensions for reference only, subject to change.



3700/3800 Series globe pattern

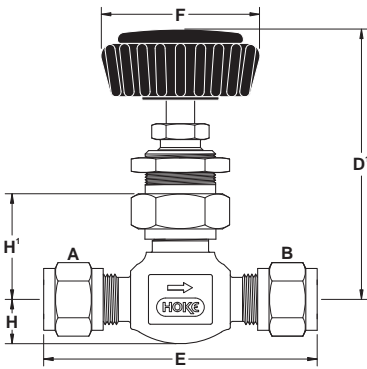
3700 Series: Globe Pattern

Regulating and PCTFE stem tips

INLET A	OUTLET B		D	D ^{1,*}	E	F	H	H ^{1,*}
⅜" Gyrolok®	⅜" Gyrolok®	inch	2⅞	2¾	2⅞	1⅞	1⅞	1⅞
		mm	56	70	54	37	8	26
⅜" male NPT	⅜" male NPT	inch	2⅞	2⅞	1¾	1⅞	2⅝	1⅞
		mm	54	67	44	37	10	24
⅜" male NPT	⅜" female NPT	inch	2⅞	2⅞	1¾	1⅞	2⅝	1⅞
		mm	54	67	44	37	10	24
⅜" female NPT	⅜" female NPT	inch	2⅞	2⅞	1¾	1⅞	2⅝	1⅞
		mm	54	67	44	37	10	24
¼" Gyrolok®	¼" Gyrolok®	inch	2⅞	2⅞	2⅜	1⅞	2⅝	1⅞
		mm	54	67	60	37	10	24
¼" male NPT	¼" Gyrolok®	inch	2⅞	2⅞	2⅜	1⅞	2⅝	1⅞
		mm	54	67	56	37	10	24
¼" male NPT	¼" male NPT	inch	2⅞	2⅞	2	1⅞	2⅝	1⅞
		mm	54	67	51	37	10	24
3mm Gyrolok®	3mm Gyrolok®	inch	2⅞	2¾	2⅞	1⅞	1⅞	1⅞
		mm	56	70	54	37	8	26
6mm Gyrolok®	6mm Gyrolok®	inch	2⅞	2⅞	2⅜	1⅞	2⅝	1⅞
		mm	54	67	60	37	10	24
8mm Gyrolok®	8mm Gyrolok®	inch	2⅞	2⅞	2⅜	1⅞	2⅝	1⅞
		mm	54	67	60	37	10	24

Dimensions for reference only, subject to change.

* D¹ and H¹ for valves with panel mounting.



3700/3800 Series globe pattern with D Style panel mounting

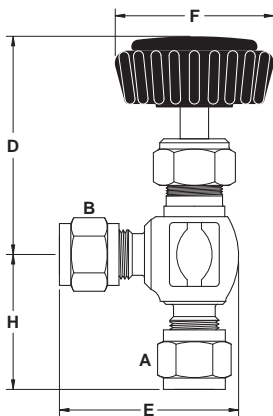
3700 Series: Angle Pattern

Regulating and PCTFE Stems

INLET A	OUTLET B		D	D ^{1,*}	E	F	H	H ^{1,*}
⅜" Gyrolok®	⅜" Gyrolok®	inch	2⅞	2¾	1½	1⅞	1⅞	1⅞
		mm	56	70	38	37	26	26
⅜" male NPT	⅜" male NPT	inch	2⅞	2⅞	1⅞	1⅞	⅞	1⅞
		mm	54	67	32	37	22	24
⅜" female NPT	⅜" female NPT	inch	2⅞	2⅞	1⅞	1⅞	⅞	1⅞
		mm	54	67	32	37	22	24
⅜" male NPT	¼" Gyrolok®	inch	2⅞	2⅞	1⅞	1⅞	⅞	1⅞
		mm	54	67	40	37	22	24
¼" Gyrolok®	¼" Gyrolok®	inch	2⅞	2⅞	1⅞	1⅞	1⅞	1⅞
		mm	54	67	40	37	30	24
¼" male NPT	¼" Gyrolok®	inch	2⅞	2⅞	1⅞	1⅞	⅞	1⅞
		mm	54	67	40	37	22	24
¼" male NPT	¼" male NPT	inch	2⅞	2⅞	1⅞	1⅞	⅞	1⅞
		mm	54	67	32	37	22	24
6mm Gyrolok®	6mm Gyrolok®	inch	2⅞	2⅞	1⅞	1⅞	1⅞	1⅞
		mm	54	67	40	37	30	24

Dimensions for reference only, subject to change.

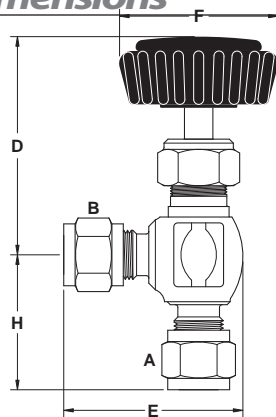
* D¹ and H¹ for valves with panel mounting.



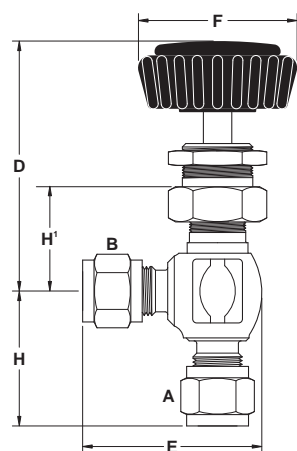
3700/3800 Series angle pattern

3700, 3800, 3900 Series

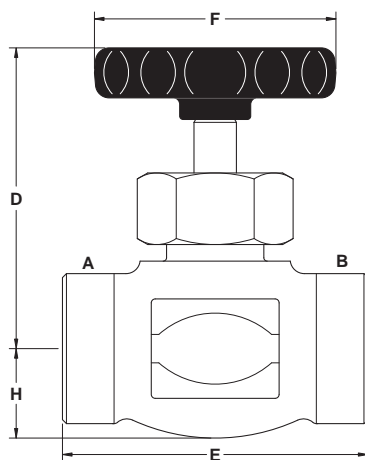
Dimensions



3700/3800 Series angle pattern



3700/3800 Series angle pattern
with P-style panel mounting



3900 Series globe pattern

3800 Series: Globe Pattern

Regulating and PCTFE stem tips

INLET A	OUTLET B	F						
		D	D ^{1*}	E	METAL STEM	PCTFE STEM	H	H ^{1*}
1/4" male NPT	1/4" female NPT	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	48	48	37	12	26
1/4" female NPT	1/4" female NPT	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	48	48	37	12	26
1/4" male NPT	3/8" Gyrolok®	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	2 ³ / ₁₆	1 ¹ / ₈	—	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	56	48	—	12	26
3/8" Gyrolok®	3/8" Gyrolok®	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	2 ¹ / ₁₆	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	65	48	37	12	26
3/8" male NPT	3/8" male NPT	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	48	48	37	12	26
1/2" Gyrolok®	1/2" Gyrolok®	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	2 ¹³ / ₁₆	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	71	48	37	12	26
10mm Gyrolok®	10mm Gyrolok®	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	2 ¹ / ₁₆	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	65	48	37	12	26
12mm Gyrolok®	12mm Gyrolok®	inch 2 ²⁵ / ₃₂	2 ²⁵ / ₃₂	2 ¹³ / ₁₆	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₄
		mm 71	71	71	48	37	12	26

Dimensions for reference only, subject to change.

* D¹ and H¹ for valves with panel mounting.

3800 Series: Angle Pattern

Regulating and PCTFE stem tips

INLET A	OUTLET B	D	D ^{1*}	E	F	H	H ^{1*}
1/4" male NPT	1/4" female NPT	inch 2 ¹ / ₁₆	2 ¹ / ₁₆	1 ² / ₄	1 ¹ / ₁₆	3 ³ / ₁₆	1
		mm 68	68	36	36	25	25
1/4" female NPT	1/4" female NPT	inch 2 ¹ / ₁₆	2 ¹ / ₁₆	1 ² / ₄	1 ¹ / ₁₆	3 ³ / ₁₆	1
		mm 68	68	36	36	25	25
3/8" male NPT	1/4" female NPT	inch 2 ¹ / ₁₆	2 ¹ / ₁₆	1 ² / ₄	1 ¹ / ₁₆	3 ³ / ₁₆	1
		mm 68	68	36	36	25	25

Dimensions for reference only, subject to change.

* D¹ and H¹ for valves with panel mounting.

3900 Series: Globe Pattern

Regulating and PCTFE stem tips

INLET A	OUTLET B	F					
		D	E	METAL STEM	PCTFE STEM	H	H ^{1*}
1/2" Gyrolok®	1/2" Gyrolok®	inch 3 ³ / ₁₆	3 ²³ / ₃₂	2 ¹ / ₈	1 ¹ / ₈	2 ⁵ / ₁₆	1 ¹³ / ₁₆
		mm 81	93	54	48	20	40
1/2" female NPT	1/2" female NPT	inch 3 ³ / ₁₆	2 ¹ / ₁₆	2 ¹ / ₈	1 ¹ / ₈	2 ⁵ / ₁₆	1 ¹³ / ₁₆
		mm 81	68	54	48	20	40

Dimensions for reference only, subject to change.

* D¹ and H¹ for valves with panel mounting.

3700, 3800, 3900 Series

How to Order: Standard Valves

3700 Series: Globe Pattern

Vee-point stem

0.060" (1.5mm) orifice/0.07 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
⅜" male NPT	⅜" male NPT	3732M2B	—
¼" Gyrolok®	¼" Gyrolok®	—	3732G4Y
¼" male NPT	¼" male NPT	3732M4B	3732M4Y

3700 Series: Globe Pattern

Blunt vee-point stem

0.170" (4.3mm) orifice/0.40 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
⅜" male NPT	⅜" male NPT	3742M2B	3742M2Y
⅜" female NPT	⅜" female NPT	3742F2B	3742F2Y
¼" Gyrolok®	¼" Gyrolok®	3742G4B	3742G4Y
¼" male NPT	¼" male NPT	3742M4B	3742M4Y

3700 Series: Globe Pattern

Regulating stem tip

0.170" (4.3mm) orifice/0.35 Cv

END CONNECTIONS		ORDER BY PART NUMBER		
INLET	OUTLET	BRASS	316 STAINLESS STEEL	MONEL®
⅜" Gyrolok®	⅜" Gyrolok®	3712G2B	3712G2Y	—
⅜" male NPT	⅜" male NPT	3712M2B	3712M2Y	—
⅜" female NPT	⅜" female NPT	3712F2B	3712F2Y	—
¼" Gyrolok®	¼" Gyrolok®	3712G4B	3712G4Y	3712G4M
¼" male NPT	¼" Gyrolok®	3712H4B	3712H4Y	3712H4M
¼" male NPT	¼" male NPT	3712M4B	3712M4Y	—
3mm Gyrolok®	3mm Gyrolok®	—	3712G3YMM	—
6mm Gyrolok®	6mm Gyrolok®	—	3712G6YMM	—
8mm Gyrolok®	8mm Gyrolok®	—	3712G8YMM	—

3700 Series: Globe Pattern

PCTFE stem tip

0.170" (4.3mm) orifice/0.40 Cv

END CONNECTIONS		ORDER BY PART NUMBER		
INLET	OUTLET	BRASS	316 STAINLESS STEEL	MONEL®
⅜" Gyrolok®	⅜" Gyrolok®	—	3752G2Y	—
⅜" female NPT	⅜" female NPT	3752F2B	3752F2Y	—
¼" Gyrolok®	¼" Gyrolok®	3752G4B	3752G4Y	3752G4M
¼" male NPT	¼" Gyrolok®	3752H4B	3752H4Y	—
¼" male NPT	¼" male NPT	3752M4B	3752M4Y	—
3mm Gyrolok®	3mm Gyrolok®	—	3752G3YMM	—
6mm Gyrolok®	6mm Gyrolok®	—	3752G6YMM	—
8mm Gyrolok®	8mm Gyrolok®	—	3752G8YMM	—

3700 Series: Angle Pattern

Regulating stem tip

0.170" (4.3mm) orifice/0.35 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
⅜" Gyrolok®	⅜" Gyrolok®	—	3722G2Y
⅜" male NPT	⅜" male NPT	3722M2B	—
⅜" female NPT	⅜" female NPT	3722F2B	—
⅜" male NPT	¼" Gyrolok®	3722H24B	—
¼" Gyrolok®	¼" Gyrolok®	—	3722G4Y
¼" male NPT	¼" Gyrolok®	3722H4B	3722H4Y
¼" male NPT	¼" male NPT	3722M4B	3722M4Y
6mm Gyrolok®	6mm Gyrolok®	—	3722G6YMM



3712G4B: Globe pattern



3722G4B: Angle pattern

3700, 3800, 3900 Series

How to Order: Standard Valves

3700 Series: Angle Pattern

PCTFE stem tip

0.170" (4.3mm) orifice/0.40 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
1/4" Gyrolok®	1/4" Gyrolok®	—	3762G4Y
1/4" male NPT	1/4" Gyrolok®	3762H4B	3762H4Y
1/4" male NPT	1/4" male NPT	3762M4B	3762M4Y
6mm Gyrolok®	6mm Gyrolok®	—	3762G6YMM



3812F4Y: Globe pattern
with D-style panel mounting

3800 Series: Globe Pattern

Regulating stem tip

0.219" (5.6mm) orifice/0.55 Cv

END CONNECTIONS		ORDER BY PART NUMBER		
INLET	OUTLET	BRASS	316 STAINLESS STEEL	MONEL®
1/4" male NPT	1/4" female NPT	3812L4B	3812L4Y	—
1/4" female NPT	1/4" female NPT	3812F4B	3812F4Y	—
1/4" male NPT	3/8" Gyrolok®	3812H46B	3812H46Y	3812H46M
3/8" Gyrolok®	3/8" Gyrolok®	3812G6B	3812G6Y	3812G6M
3/8" male NPT	3/8" male NPT	3812M6B	3812M6Y	—
1/2" Gyrolok®	1/2" Gyrolok®	3812G8B	3812G8Y	3812G8M
10mm Gyrolok®	10mm Gyrolok®	—	3812G10YMM	—
12mm Gyrolok®	12mm Gyrolok®	—	3812G12YMM	—

3800 Series: Globe Pattern

Vee-point stem tip

0.219" (5.6mm) orifice/0.55 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
3/8" Gyrolok®	3/8" Gyrolok®	3842G6B	3842G6Y
1/2" Gyrolok®	1/2" Gyrolok®	3842G8B	3842G8Y

3800 Series: Globe Pattern

PCTFE stem tip

0.170" (4.3mm) orifice/0.40 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
1/4" male NPT	1/4" female NPT	—	3852L4Y
1/4" female NPT	1/4" female NPT	3852F4B	3852F4Y
3/8" Gyrolok®	3/8" Gyrolok®	—	3852G6Y
3/8" male NPT	3/8" male NPT	—	3852M6Y
1/2" Gyrolok®	1/2" Gyrolok®	—	3852G8Y
10mm Gyrolok®	10mm Gyrolok®	—	3852G10YMM
12mm Gyrolok®	12mm Gyrolok®	—	3852G12YMM

3800 Series: Angle Pattern

Regulating stem tip

0.170" (4.3mm) orifice/0.55 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
1/4" male NPT	1/4" female NPT	—	3802L4Y
1/4" female NPT	1/4" female NPT	3802F4B	3802F4Y
3/8" male NPT	1/4" female NPT	—	3802L64Y



3862L4Y: Angle pattern

3800 Series: Angle Pattern

PCTFE stem tip

0.170" (4.3mm) orifice/0.55 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	BRASS	316 STAINLESS STEEL
1/4" male NPT	1/4" female NPT	—	3862L4Y
1/4" female NPT	1/4" female NPT	3862F4B	3862F4Y
3/8" male NPT	1/4" female NPT	—	3862L64Y

3700, 3800, 3900 Series

How to Order: Standard Valves

3900 Series: Globe Pattern*

Regulating stem tip
0.312" (7.9mm) orifice/1.1 Cv

END CONNECTIONS		ORDER BY PART NUMBER		
INLET	OUTLET	BRASS	316 STAINLESS STEEL	CARBON STEEL
½" Gyrolok®	½" Gyrolok®	—	3912G8Y	—
½" female NPT	½" female NPT	3912F8B	3912F8Y	3912F8E

* 3912 series only available with metal handle

3900 Series: Globe Pattern

PCTFE stem tip
0.312" (7.9mm) orifice/1.1 Cv

END CONNECTIONS		ORDER BY PART NUMBER		
INLET	OUTLET	BRASS	316 STAINLESS STEEL	CARBON STEEL
½" Gyrolok®	½" Gyrolok®	—	3952G8Y	—
½" female NPT	½" female NPT	3952F8B	3952F8Y	3952F8E



3952F8Y: Globe pattern

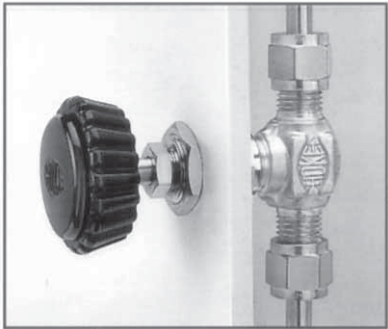
Ordering Options

Handle Options*

To order a plug button, specify a part number from below.

COLOR	3712, 3722, 3732, 3742, 3752, 3762, 3802, 3852, 3862 SERIES	3812, 3842, 3952 SERIES
Red	94312-002	94349-002
Green	94312-003	94349-003
Yellow	94312-004	94349-004
Orange	94312-005	94349-005
Brown	94312-006	94349-006
Blue	94312-007	94349-007

* 3912 series is not available with plug button



D-style panel mounting

O-ring Packing

O-ring packing is available for all 3700 and 3800 Series valves. For Buna-N o-ring packing, specify kit number 3700K1. For Viton® o-ring packing, specify kit number 3700K2. For additional o-ring options, contact your local HOKE distributor.

Panel Mounting

3700 & 3800 Series

D-style: HOKE's factory-installed panel mounting permits valve installation without disrupting the packing. In addition, future packing adjustments may be performed while the valve is mounted. Factory-installed panel mount D-style is available for all models except the 3732 Series (globe pattern, vee-point stem). To order, add a 'D' prefix to the model number (e.g., D3712G4Y)

P-style: Panel mounting kits may be field installed on all 3700 and 3800 Series valves (including the 3732 Series). Once the kit is in place, valves may be mounted without disrupting the packing. All future packing adjustments must be performed with the valve removed from the panel. To order, specify part number 306-86A, which contains one kit.



P-style panel mounting kits

Panel mounting dimensions for 3700 & 3800 Series

Panel hole = ¼" (16.2 mm) diameter

Panel thickness = $\frac{3}{16}$ " (4.7 mm) maximum

3900 Series

P-style panel mounting kits for field installation are available. To order, specify kit number 3900K1

Panel mounting dimensions for 3900 Series

Panel hole = $\frac{4}{16}$ " (19.4 mm) diameter

Panel thickness = $\frac{5}{16}$ " (7.9 mm) maximum

Spare Parts

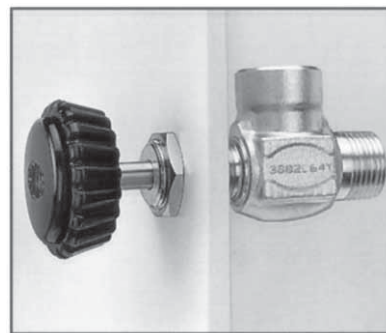
Spare parts and repair kits are available for all needle valves. Please contact your distributor for specific information.

Cleaning and Testing

When ordering, please specify if oxygen cleaning or helium leak testing is required.

Additional Sizes

Additional sizes and options are available on special request. Please consult your local HOKE distributor.



P-style panel mounting

For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.

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