

General Description: Parker HR Series Metering Valves provide the highest degree of precision metering for moderate pressure applications. A choice of seven precision ground, tapered flat, non-rotating and non-rising valve stems enable repeatable metering at flow capacities as low as 0.0004 C_v . With 15 stem turns, this valve offers the ultimate in precision flow control. This series also features shut-off capability not found in most metering valves.

- Features:**
- Bubble tight shut-off
 - Special fine pitch thread with 15 turn resolution is isolated from contact with process fluids
 - Non-rotating/non-rising valve stem design provides smooth, non-reversing flow characteristics
 - Seven optional valve stem tapers
 - Special orifice liner assures long life
 - Panel or in-line mounting
 - Angle or in-line patterns
 - Brass or 316 SS forged body construction
 - 100% function tested for actuation and shut-off

METERING VALVES

SPECIFICATIONS

	Flow Data						
	H0	H1	H2	H3	H4	H5	H6
Orifice	0.000002 IN ²	0.000083 IN ²	0.000168 IN ²	0.000241 IN ²	0.000674 IN ²	0.002325 IN ²	0.006227 IN ²
In-line Pattern	$C_v = 0.0004$ $X_T = 0.85$	$C_v = 0.0070$ $X_T = 0.85$	$C_v = 0.0140$ $X_T = 0.85$	$C_v = 0.0200$ $X_T = 0.85$	$C_v = 0.0300$ $X_T = 0.85$	$C_v = 0.0470$ $X_T = 0.85$	$C_v = 0.1180$ $X_T = 0.85$
Angle Pattern	$C_v = 0.0004$ $X_T = 0.66$	$C_v = 0.0070$ $X_T = 0.66$	$C_v = 0.0140$ $X_T = 0.66$	$C_v = 0.0210$ $X_T = 0.66$	$C_v = 0.0320$ $X_T = 0.66$	$C_v = 0.0490$ $X_T = 0.66$	$C_v = 0.1550$ $X_T = 0.66$

Pressure Rating at all temperatures: 250 psig CWP

Turns to open: 15 +/- 1

Valve / Seal Temperature Ratings:

Buna-N Rubber: -50 °F to 300 °F

Ethylene Propylene Rubber: -50 °F to 300 °F

Neoprene Rubber: -50 °F to 300 °F

Fluorocarbon Rubber*: -25 °F to 400 °F

Highly Fluorinated Fluorocarbon Rubber: -25 °F to 200 °F

*Note: The Turns Counter Handle (TC) requires the HT option for use at temperatures above 300° F.

Flow tested in accordance with ISA S75.02. Gas flow will be choked when $P_1 - P_2 / P_1 = x_T$.

METERING VALVES

HR SERIES



Panel Hole Diameter:
0.65
Max Panel Thickness:
0.28

Model Shown: M6A-H6L-KZ-SS-TC

K Handle Dimensions:

PATTERN	E (in.)	F (in.)	G (in.)
IN-LINE	2.35	2.35	0.78
ANGLE	2.23	2.23	0.78

TC Handle Dimensions:

PATTERN	E (in.)	F (in.)	G (in.)
IN-LINE	2.88	2.88	1.12
ANGLE	2.76	2.76	1.12

NS Handle Dimensions:

PATTERN	E (in.)	F (in.)	G (in.)
IN-LINE	2.33	2.33	0.25
ANGLE	2.21	2.21	0.25

Part No.	End Connections		Dimensions			
	Inlet (Port 1)	Outlet (Port 2)	A† (in.)	B† (in.)	C (in.)	D (in.)
1A-H#A	1/16" Compression A-LOK®		0.92	0.92	0.41	0.73
1Z-H#A	1/16" Compression CPI™		0.92	0.92	0.41	0.73
2A-H#L	1/8" Compression A-LOK®		1.03	1.03	0.41	0.85
2A-H#A	1/8" Compression A-LOK®		1.03	1.03	0.41	0.73
2F-H#L	1/8" Female NPT		0.93	0.93	0.41	0.85
2F-H#A	1/8" Female NPT		0.93	1.03	0.41	0.73
2Z-H#L	1/8" Compression CPI™		1.03	1.03	0.41	0.85
2Z-H#A	1/8" Compression CPI™		1.03	1.03	0.41	0.73
4A-H#L	1/4" Compression A-LOK®		1.11	1.11	0.41	0.85
4A-H#A	1/4" Compression A-LOK®		1.11	1.11	0.41	0.73
4F-H#L	1/4" Female NPT		0.97	0.97	0.41	0.85
4F-H#A	1/4" Female NPT		0.97	0.97	0.41	0.73
4M-H#L	1/4" Male NPT		0.93	0.93	0.41	0.85
4M-H#A	1/4" Male NPT		0.93	0.93	0.41	0.73
4Z-H#L	1/4" Compression CPI™		1.11	1.11	0.41	0.85
4Z-H#A	1/4" Compression CPI™		1.11	1.11	0.41	0.73

† For CPI™ and A-LOK®, dimensions are measured with nuts in the finger tight position.

HOW TO ORDER

The correct part number is easily derived from the following number sequence. The six product characteristics required are coded as shown below. *Note: If the inlet and outlet ports are the same, eliminate the outlet port designator.

Example: **4Z** ***** - **H3L** - **V** - **SS** - **TC**

① ② ③ ④ ⑤ ⑥

Inlet Outlet Valve/Stem Seal Body Handle

Port Port Series Material Material Type

① Inlet Port	② Outlet Port	③ Valve/stem Series	④ Seal Material	⑤ Body Material	⑥ Handle Type
1A, 1Z		H#A	BN-Buna-N Rubber EPR-Ethylene Propylene Rubber NE-Neoprene Rubber V-Fluorocarbon Rubber KZ-Highly Fluorinated Fluorocarbon Rubber	SS-Stainless Steel B-Brass	K-Knurled TC-Turns Counter NS-No Handle (Slotted Stem)
2A, 2F, 2Z, 4A, 4F, 4M, 4Z,		H#A H#L			

HANDLE OPTIONS

Knurled (K)



Knurled ABS molded handle provides ease of actuation

Turns Counter (TC)



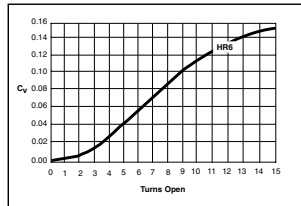
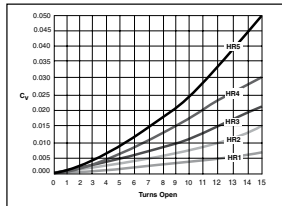
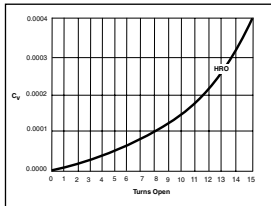
Graduated black-anodized aluminum alloy handle provides a readable count of turns open

Slotted Stem (NS)



Screwdriver slot on top of stem may be used for inaccessible locations or tamper resistance

C_v vs. Turns Open



WATER FLOW DATA

