

For Balancing and Flow Measurement Applications

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

Series CSM-81-F

Flow Measurement Valves

Sizes: 2½" – 8" (65 – 200mm)

Series CSM-81-F Flow Measurement Valves are designed for application on medium to high volume flow rate HVAC units. The CSM-81-F's lubricated plug design, extended throttling range and large indicator plate provide accurate flow measurement and long service life.

CSM-81-F's unique cylindrical plug design provides full flow with minimal pressure drops and low operating torque. Large wrench flats on the external plug surface make setting or closing the valve simple.

Series CSM-81-F valves feature easily accessible checked metering ports with drip caps to facilitate system balancing and flow measurement. These valves also provide positive shutoff, eliminating the need for a separate service valve.

Features

- Accurate flow measurement
- Flanged end connections
- Positive shutoff
- Checked metering ports
- Low torque
- Face to face dimensions to ANSI B16.10

Applications

- Fan coil units
- Water source heat pumps
- Reheat coils
- Panel coils
- Branch lines
- Pumps



CSM-81

BAA/ARRA Compliant*

*This product complies with the Buy American Act and The American Recovery and Reinvestment Act. For more information, visit watts.com.

Specifications

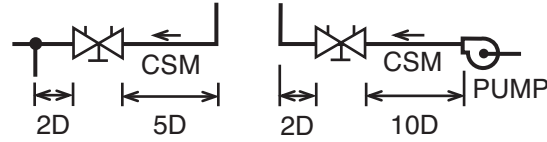
A flow measurement valve shall be installed on each hot/chilled water unit or as otherwise shown on the plans. The valve shall be of flanged end connections, provide positive shutoff, low torque cylindrical plug design, with position indicator plate and checked metering ports. The valve shall be a Watts Regulator Company Series CSM-81-F.

Materials

Body	ASTM-A-126 Class B semi-steel
Plug	ASTM-A-126 Class B semi-steel
Stem Seal	PTFE
Pressure Taps	Brass 1/4" SAE 45° Flare

Installations

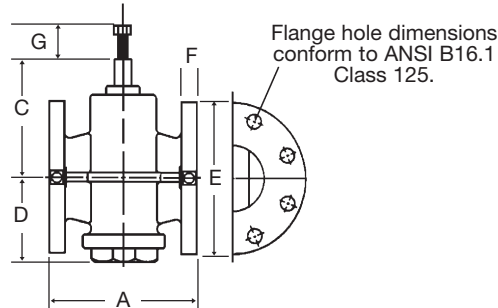
Generally locate the valve five pipe diameters downstream from a fitting with two diameters downstream from the balancing valve free from fittings. If a balancing valve is located downstream from a circulation pump, allow a distance of ten (10) diameters between the pump and balancing valves.



Pressure - Temperature

Pattern	Size	Working Temp		Max. Working Pres.	
		°F	°C	psi	bars
Flange	2½" – 8" (65 – 200mm)	250	121	175	12

Dimensions - Weights



Model	Size (DN)		Dimensions										Weight			
	in.	mm	A		C		D		E		F		G		lbs.	kgs.
CSM-81-F	2½	65	7½	191	5⅞	130	3 ¹⁵ / ₁₆	99	7	178	1 ¹¹ / ₁₆	17	2½	64	29.5	13.38
CSM-81-F	3	80	8	203	5 ⁷ / ₁₆	137	4 ³ / ₁₆	106	7½	191	¾	19	2½	64	39.0	17.69
CSM-81-F	4	100	9	229	6½	165	4 ¹⁵ / ₁₆	124	9	229	1 ⁵ / ₁₆	24	2½	64	61.5	27.89
CSM-81-F	5	125	10½	267	7¾	197	6	153	10	254	1	25	3⅝	92	88.0	39.91
CSM-81-F	6	150	10½	267	7¾	197	6	153	11	279	1	25	3⅝	92	100.0	45.35
CSM-81-F	8	200	11½	292	9 ⁹ / ₁₆	233	6½	165	13½	343	1⅞	28	3⅝	92	172.0	78.00

Suffix: F = Flanged Ends.



A Watts Water Technologies Company



USA: No. Andover, MA • Tel. (978) 688-1811 • Fax: (978) 794-1848 • www.watts.com
 Canada: Burlington, ONT. • Tel. (905) 332-4090 • Fax: (905) 332-7068 • www.wattscanada.ca