

# Evans CA Series

## *Purge Metering Manifold*

**E**vans Components provides an economical, reliable and more compact solution for construction purge gas metering used in high-purity welding and testing for Semiconductor & Solar applications. The Evans Metering Manifold replaces costly multi-component assemblies with an exclusive all welded “Integrated Manifold” design. All components are integrated into a single compact, lightweight unit which eliminates assembly time, reduces number of mechanical connections/welds, and cost. Elimination of the number of mechanical connections reduces risk of potential hazing and discoloration of weld zones, and improves reliability. All Evans Metering Manifolds are UHP cleaned, packaged in a clean room and 100% helium leak tested.



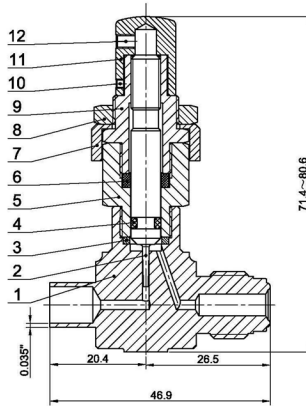
### Features

- **Lower cost than conventional assemblies.**
- **Fewer mechanical connections and welds provide unmatched leak integrity.**
- **Improved dry-down characteristics.**
- **10 Ra Electropolished manifold**
- **Compact design provides room for up to 8-metering valves with 16” OAL, thus fitting on standard sub-fab columns**
- **Welded metering valves eliminate potential of removal/leakage**
- **Helium leak tested to 1 x 10<sup>-9</sup> scc/sec**

# Drawings & Specifications

## Important Specifications for Metering Valve

- Max working pressure: 1000 psig (68.9 bar)
- Working temperature: -10F to 400F (-23C to 204C)
- Flow coefficient (Cv): 0.03
- Orifice size: 0.056 in (1.42 mm)
- Stem taper: 3°
- Turns to open: 8 to 10
- Handle type: Vernier
- Bubble tight shutoff not available



12	Handle Screw	Stainless steel
11	Handle	300SS/A276
10	Lock Screw	Stainless steel
9	Bonnet	316SS/A479
8	Panel Mount Nut	316SS/B783
7	Bonnet Sleeve	316SS/A182
6	Stem Guide Ring	Glass-filled PTFE
5	Body Extension	316SS/A479
4	O-ring	FKM
3	Body Seal	FKM
2	Stem	316SS/A479
1	Body	316SS/A182
Item	Component	Material

## DM SERIES PURGE MANIFOLD - PART NUMBER DESCRIPTION

CA -

CA - Series

4M -

4M - 4 Metering valves  
4MC - 4 Valves/VCR caps  
8M - 8 Metering valves  
8MC - 8 Valves/VCR caps

8V -

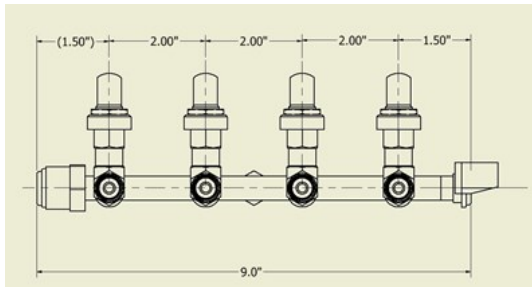
8V - 1/2" Manifold with MVCR x FVCR connections  
8VC - 1/2" Manifold with VCR cap/plug

4HV -

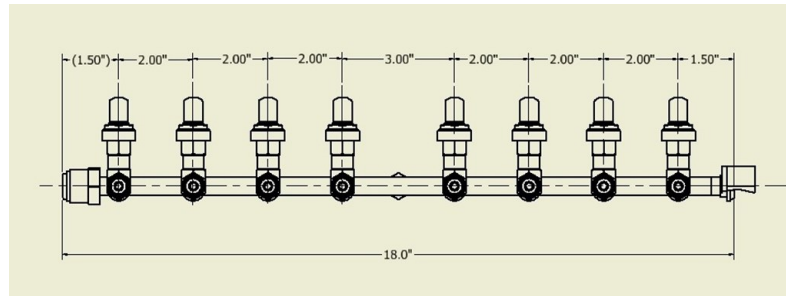
4HV - 1/4" High flow MVCR inlet branch connection  
8HV - 1/2" MVCR inlet branch connection  
X - No branch connection

X(OPTIONS)

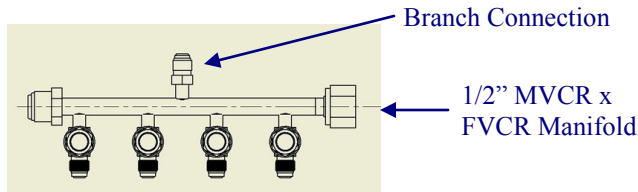
R - UHP Regulator  
G - UHP 0-160 PSIG Pressure Gauge  
BKT - Panel Mounted  
X - No Options



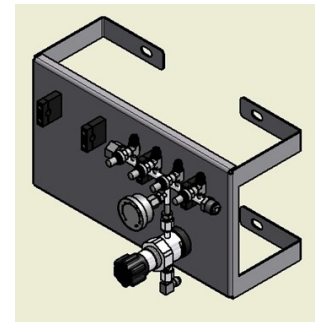
4-Valve Manifold



8-Valve Manifold



Optional panel mount with regulator & UHP Gauge



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NOTE: Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions.

08/14

Flow Coefficient at Turns Open

