



## ASDV AMBIENT SENSING DRAIN VALVE

For freeze protection of condensate systems up to 300 psig (20.7 bar) (2068 kpa)





# ASDV – Ambient Sensing Drain Valve

---

## Applications

The Armstrong ASDV is ideal for protection of piping, valves, fittings, pumps, condensate systems, safety showers, fire lines, spray nozzles, freeze sensitive equipment, etc., or as back-up protection on steam traced systems or equipment.

## Operation

The ASDV thermal element senses ambient temperature, and at a pre-set temperature the drain valve will open.

Water from the line will then flow past the element. If the water temperature becomes high enough, the valve will then close. If the water temperature is low, the valve will modulate to maintain temperature or will open to drain completely. The valve will be fully open at 35°F (2°C). On rising temperature, the valve will be tightly closed at 40°F (4.4°C).

## Advantages

Manual freeze protection with cracked valves for continuous drainage is wasteful and possibly susceptible to freezing. The ASDV automates freeze prevention and reduces waste by opening only when freezing is imminent and closing when the danger is past. Water loss is minimized and damage and down time are eliminated. The unique ram-type plug and seat provide reliable, tight shut-off longer than any other design. All valves are 100% factory tested.

## Design Features

- All stainless steel body, fittings, spring, and plug
- Corrosion resistant for long life
- Narrow temperature band
- Compact low mass; fast response
- Ram-type plug for reliable tight shut-off
- Downstream actuator for greater sensitivity
- Sensitive to temperature only
- Unaffected by pressure variations
- Easy installation with simple wrenches



# ASDV – Ambient Sensing Drain Valve

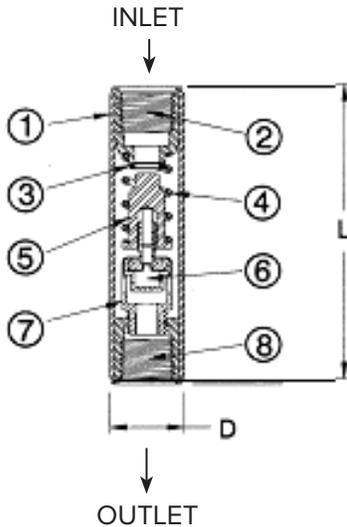
## Approximate Cv Required Uninsulated\* for Freeze Protection of Water Lines

List of Materials		
Item	Name of Part	Material
1	Tubular body	304 Stainless Steel
2	Inlet fitting	303 Stainless Steel
3	Seat seal	PTFE
4	Operating spring	Stainless Steel
5	Ram-type plug	303 Stainless Steel
6	Thermal actuator	FM. Brass **
7	Actuator carrier	FM. Brass **
8	Outlet fitting	303 Stainless Steel

\*\* All Stainless Steel models available

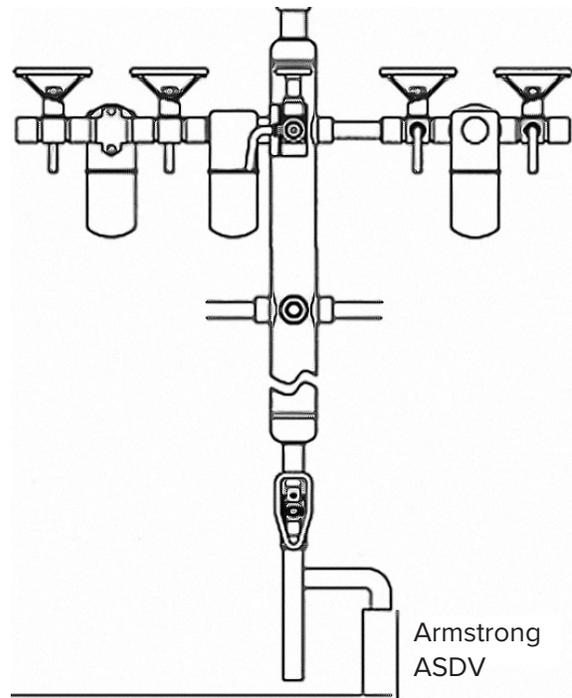
Specifications	
Maximum Operating Pressure	300 psi, 20.7 bar
Maximum Operating Temperature	Saturated Steam Temperature
Full Open Temperature	35°F (2 °C)
Full Closed Temperature	*40°F (4.4 °C)
Flow Coefficient $C_v$ , at Set-Point 3/8" and 1/2" NPT or BSPT (See Capacity Chart 624)	Port Sizes: A - 0.13 B - 0.57 C - 0.82 (Std)
3/4" NPT or BSPT	D - 2.0 (Std)

\*Other set-points available with longer lead times and minimum quantities required.

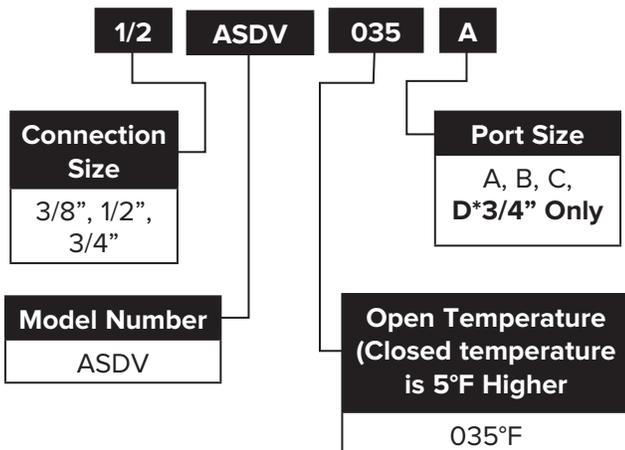


Dimensions and Weights			
Size Tube OD (in)	D in (mm)	L in (mm)	Weight lb (kg)
3/8 or 1/2	1-1/8 (28)	4-1/2 (114)	3/4 (0.31)
3/4	1-3/8 (34)	5-1/2 (160)	1-1/4 (0.54)

## Armstrong ASDV on Manifold Assembly



## How to Order



Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit [armstronginternational.com](http://armstronginternational.com) for up-to-date information.



INTELLIGENT SOLUTIONS IN STEAM, AIR AND HOT WATER

**Armstrong International**

North America • Latin America • India • Europe / Middle East / Africa • China • Pacific Rim

[armstronginternational.com](http://armstronginternational.com)