

Dry All®

Full Range of HVAC&R Line Products



Pressure Relief Valves

Introduction

Dry All Pressure Relief Valve is a safety device used in HVAC applications. PRV's are essential components in any pressurized system serving as the last line of defense to prevent dangerous over-pressure events. Dry All Pressure Relief Valve are made to be used in refrigeration systems to stop over-pressure brought on by system failure or high outside heat. They can only be utilized with refrigerant gas or vapour. PRV's are designed and manufactured to the intent of standard ASME VIII Division 1.

Key Features

- Accurate Pressure Regulations
- Fast response time
- Wide Pressure Range
- Reliable Reseating
- Over pressure Protection

Applications

- Chillers and Refrigeration Systems
- Hydronic Heating Systems
- Air conditioning systems
- Heat Pumps

Working Principle

Dry All Pressure Relief Valve is a safety device designed to protect pressurized system from excessive pressure. It operated automatically to release pressure when it exceeds a preset limit, preventing damage to the system and ensuring safe operation.

Under normal conditions the system pressure is below the PRV's set pressure. In this case, the valve remains closed, sealing the system to maintain the desired pressure. The inside spring keeps the valve tightly closed, preventing any fluid from escaping. As the pressure in the system increases and approaches the PRV's set pressure the force exerted by the pressure on the valve's inlet increases and once the system pressure exceeds the set pressure, it results in opening the valve allowing the fluid to flow out of the valve.

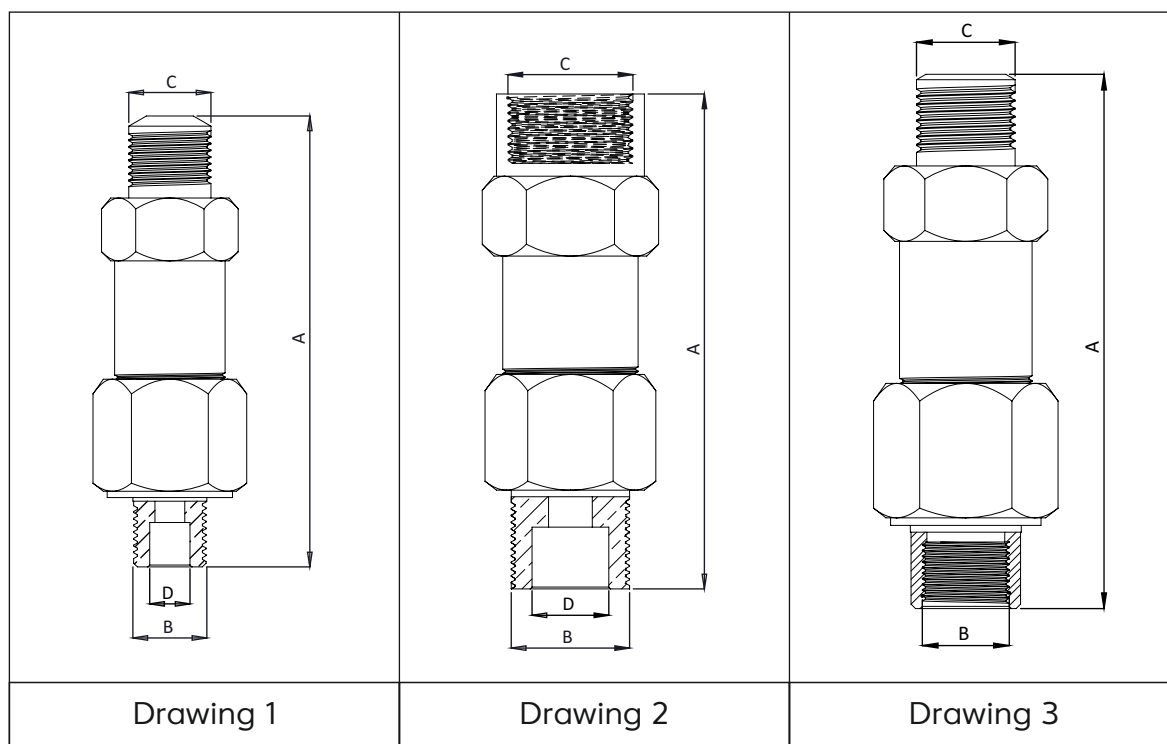
As the fluid escapes from the system the pressure inside the system decreases resulting in closing the valve. The PRV will remain closed until the system pressure rises above the set pressure.

Material of Construction

Brass Pressure Relief Valve

S/N	Parts	Material
1	Main Body	Brass (IS 319)
2	Outlet Connection	Brass (IS 319)
3	Valve Internals 1. Valve seat holder 2. Gland orifice 3. Piston	Brass (IS 319)
4	Seat Seal	Silicon Rubber
5	Spring	Plated Alloy Steel

Dimensional Data



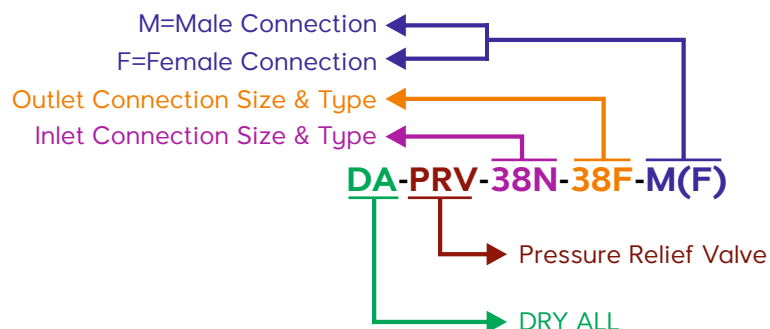
Available Models

Straight through Pressure Relief Valves - Brass								
Sr. No.	Dry All Model No.	Total length A (mm)	Inlet Connection B (inch)	Outlet Connection C (inch)	Inlet ID D (mm)	Flow Area (mm ²)	Weight (gms)	Refer Drawing No.
1	DA-PRV-38N-38F-M	88	3/8" NPT	3/8" FLARE	7	38.5	195	Drawing - 1
2	DA-PRV-38N-12F-M	123	3/8" NPT	1/2" FLARE	7	38.5	565	
3	DA-PRV-12N-38F-M	123	1/2" NPT	3/8" FLARE	9	63.6	565	
4	DA-PRV-12N-12N-F	123	1/2" NPT	1/2" NPT FEMALE	9	63.6	570	Drawing - 2
5	DA-PRV-12N-12F-M	123	1/2" NPT	1/2" FLARE	9	63.6	570	Drawing - 1
6	DA-PRV-12N-58F-M	123	1/2" NPT	5/8" FLARE	7	38.5	565	
7	DA-PRV-34N-34F-M	125	3/4" NPT	3/4" FLARE	9	63.6	585	
8	DA-PRV-34N-34N-F	125	3/4" NPT	3/4" NPT FEMALE	9	63.6	585	Drawing - 2
9	DA-PRV-1N-1N-F	139	1" NPT	1" NPT FEMALE	12.5	123	900	
10	DA-PRV-114N-F-114F-M	145	1-1/4" NPT FEMALE	1-1/4" FLARE	—	123	1300	Drawing - 3
11	DA-PRV-2B-2N-F	250	2" BSP	2" NPT FEMALE	46	1661	4800	Drawing - 2

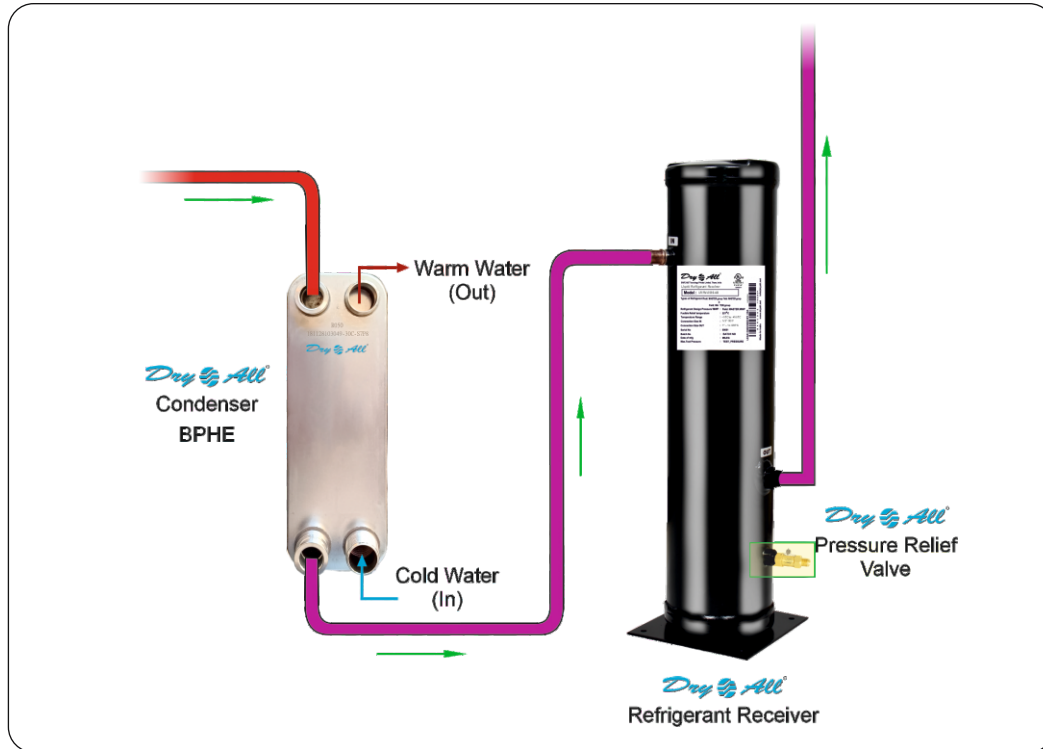
Note:

- Set pressure range = 14 to 31 bar (200 psi to 450 psi)
*Customizable Set Pressure available as per request.
- Allowable operating temperature = -20°C to + 150°C
- All Dry All Pressure Relief Valves are designed and manufactured to the intent of standard ASME VIII Division 1

Nomenclature



Product Installed in Refrigeration Cycle



Selection Parameters

Understand the Systems Requirements: Identify the system's normal operating pressure and the maximum allowable pressure. The PRV is set below 5-10 Psig of the maximum allowable pressure. Temperature Range: Dry All pressure relief valves can be operated in temperature range of -20°C to +150°C

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Check Hologram for
Genuine Product



Full Range of HVAC&R Line Products

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