



# PRESSURE RELIEF VALVES: STANDARD RANGE

## How It Works

A conventional PRV will start to lift within +/-3% of the stamped set pressure. This set point is defined by a minimum of one bubble per second when testing to API standard 527. Following this initial lift the valve will then “pop” fully open within a further 10%. This is achieved through the design of the valve internals, which utilise local static pressure increases and fluid flow phenomena to achieve the characteristic pop action. Once pressure in the system decreases to a safe level, the spring in the PRV will force the valve to re-close again, ensuring some system charge is maintained. A PRV is a safety device and should only be open under abnormal system operating conditions.

## Materials of Construction

- For all 52 models, the main pressure shell of the valve (body & outlet) is made from brass. Valve internal components are made from brass, plated steel or stainless steel.
- For all 53 models, the main pressure shell of the valve (body & outlet) is made from stainless steel. Valve internal components are made from plated steel or stainless steel.
- All models use a non-stick and chemically-inert bespoke PTFE seal.

## Technical Specification

All models are fully designed and certifies to ASME BPV XIII, with the exception of the 526E, which is designed the intent of the same code.

Set pressure range:

10.3 barg to 31.0 barg\*  
150 PSig to 450 PSig\*

52 Temperature range:

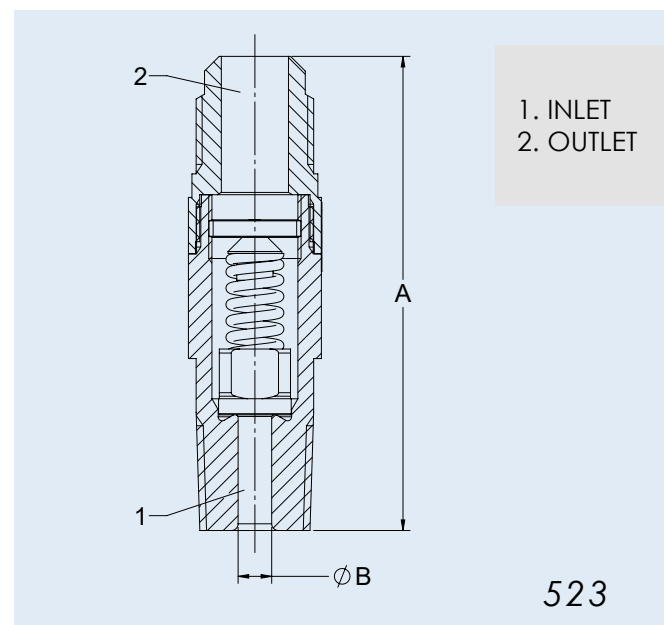
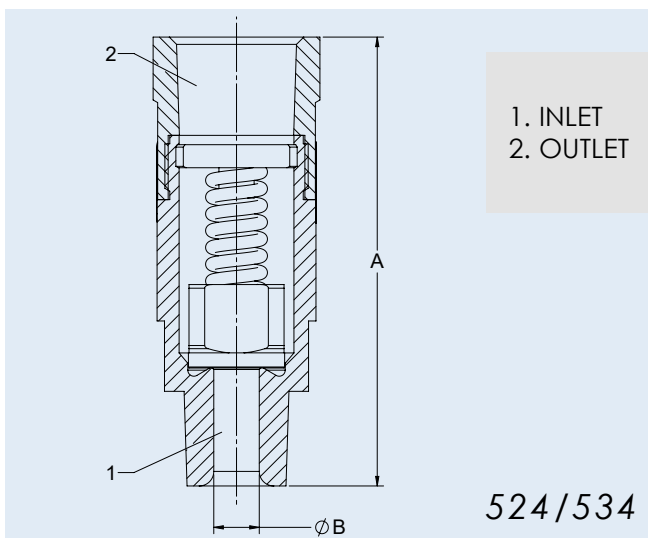
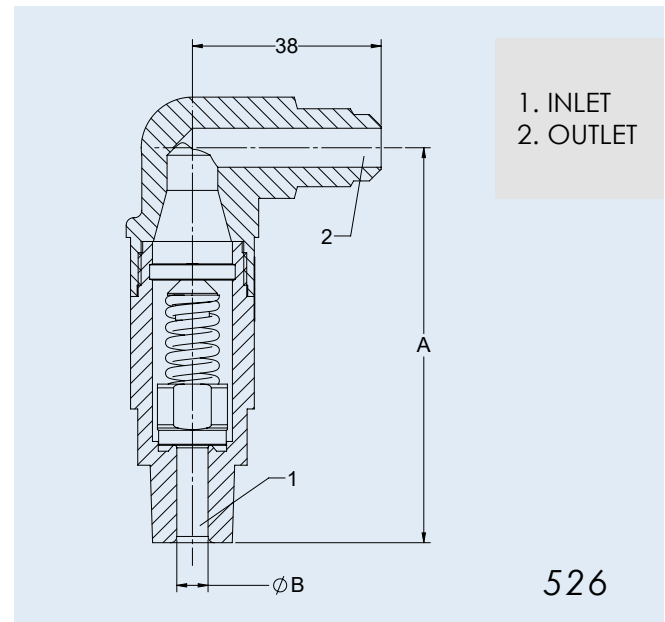
-40°C to +107°C  
-40°F to +225°F

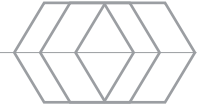
53 Temperature range:

-29°C to +135°C  
-20°F to +275°F

\*526E, 5230A, 5231A & 5231B minimum pressure setting is 14.0 barg (203 PSig)

5244, 5244A, 5244P, 5344 & 5344A maximum pressure setting is 27.6 barg (400 PSig)





Relief Valves - Brass									
Model	Connection Type		Dimensions (mm)		Flow Area (mm <sup>2</sup> )	K <sub>dr</sub>	Weight (kg)	ASME UV	CE/UKCA Cat
	Inlet	Outlet	A	ØB					
526E	3/8" NPTF	3/8" SAE Flare	80	6.35	31.67	0.41	0.3	No	Cat IV
5230A	1/4" NPTF	1/2" SAE Flare	84	6.35	31.67	0.69	0.2	Yes	
5231A	3/8" NPTF	1/2" SAE Flare	84	6.35	31.67	0.69	0.2	Yes	
5231B	1/2" NPTF	5/8" SAE Flare	90	6.35	31.67	0.69	0.2	Yes	
5232A	1/2" NPTF	3/4" SAE Flare	108	9.53	71.26	0.67	0.4	Yes	
5240	1/2" NPTF	3/4" NPTF (Female)	94	9.53	71.26	0.67	0.4	Yes	
5242	3/4" NPTF	3/4" NPTF (Female)	94	9.53	71.26	0.67	0.5	Yes	
5244A	3/4" NPTF	1" NPTF (Female)	105	12.70	126.68	0.70	0.7	Yes	
5244	1" NPTF	1" NPTF (Female)	105	12.70	126.68	0.70	0.7	Yes	
5245	1" NPTF	1 1/4" NPTF (Female)	146	17.86	250.41	0.76	1.5	Yes	
5246	1 1/4" NPTF	1 1/4" NPTF (Female)	145	17.86	250.41	0.76	1.6	Yes	

Relief Valves - Stainless Steel									
Model	Connection Type		Dimensions (mm)		Flow Area (mm <sup>2</sup> )	K <sub>dr</sub>	Weight (kg)	ASME UV	CE/UKCA Cat
	Inlet	Outlet	A	ØB					
5340	1/2" NPTF	3/4" NPTF (Female)	94	9.53	71.26	0.67	0.4	Yes	Cat IV
5342	3/4" NPTF	3/4" NPTF (Female)	94	9.53	71.26	0.67	0.4	Yes	
5344A	3/4" NPTF	1" NPTF (Female)	105	12.70	126.68	0.70	0.6	Yes	
5344	1" NPTF	1" NPTF (Female)	105	12.70	126.68	0.70	0.6	Yes	
5345	1" NPTF	1 1/4" NPTF (Female)	146	17.86	250.41	0.76	1.3	Yes	
5346	1 1/4" NPTF	1 1/4" NPTF (Female)	145	17.86	250.41	0.76	1.4	Yes	

Valve Model / Setting Combinations										
Setting (barg)	526E	5230A	5231A	5231B	5232A	5240	5242	5244	5340	5342
10.3	N/A	N/A	N/A	N/A						
14.0										
16.2										
17.2										
20.7										
24.1										
24.8										
25.0										
25.9										
27.6										
29.3								N/A		
31.0								N/A		

Note: Blue indicates build to stock models