



PRESSURE RELIEF VALVES: HIGH PRESSURE

How It Works

The high pressure relief valve range is specifically designed for high pressure applications up to 130 barg and in particular, transcritical CO₂ systems. This range has been developed from the ground up, utilising the latest computational, simulation and experimental methods. The valves are manufactured from Brass.

The 5701AX & 5701GX models have been developed to suit the majority of applications and carry the added benefit of EN ISO 4126-1 certification. The 5700 is intended specifically for protection of pipework and small vessels whilst the 5702 models are sized to deal with large vessels or multiple compressor discharges.

Main Features

- Maximum pressure setting of 130 barg
- Set pressure tolerance = +/-3%
- Maximum overpressure = 10%
- In accordance with EN ISO 4126-1, the 5701AX valve reseats within 15% of set pressure following a discharge
- TFM second generation PTFE seal
- Suitable for HFC, HCFC, HFO and CO₂ refrigerant gases

Technical Specifications

Allowable Operating Temperature:

-40°C to +150°C

Standard pressure settings (barg):

31*, 40*, 42*, 45*, 46, 50, 60, 70, 80, 90, 100, 110, 120, 130

*Not available on 5701AX or 5701GX models



Part No.	Valve Capacity Ratings (kg Air/min) @ 20 °C									
	Standard Pressure Setting (barg)									
	31.0	40.0	42.0	45.0	46.0	60.0	80.0	100.0	120.0	130.0
5700	3.9	5.0	5.2	5.6	5.7	7.4	9.8	12.2	14.7	15.9
5701AX / 5701GX	N/A*	N/A*	N/A*	N/A*	20.5	26.7	35.4	44.2	52.9	57.3
5702 (A/B/C)	34.9	44.7	46.9	50.2	51.3	66.5	88.4	110.2	132.1	143.0

* Minimum pressure setting is 46.0 barg.

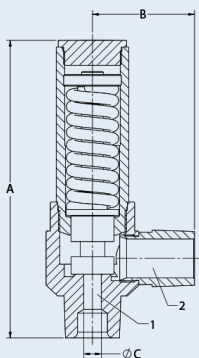


Fig. 1

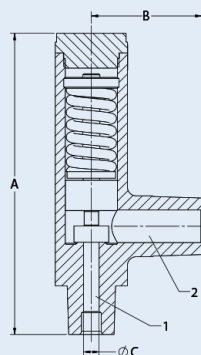


Fig. 2

1. INLET
2. OUTLET

High Pressure Relief Valve Range

Part No.	Conn Size (inch)		Dimensions (mm)			Flow Area (mm ²)	k _{dr}	Drawing Reference	Weight (kg)	ASME UV	CE/UKCA Cat
	Inlet	Outlet	A	B	ØC						
5700	3/8 NPTF	3/8 NPTF	87.0	30.7	3.5	9.62	0.81	Fig. 1	0.27	No	Cat IV
5701AX	1/2 NPTF	3/4 NPTF	132.5	50.6	7.1	39.59	0.71	Fig. 2	0.86	Yes	
5701GX	G-1/2	3/4 NPTF	132.5	50.6	7.1	39.59	0.71	Fig. 2	0.86	Yes	
5702	1/2 NPTF	1 NPTF	179.5	61.4	10.5	86.59	0.81	Fig. 1	2.15	Yes	
5702A	3/4 NPTF								2.18	Yes	
5702B	1 NPTF								2.21	Yes	
5702C	1 1/4 NPTF								2.29	Yes	



FLOW CAPACITIES & SECTION GUIDELINES

PRV Air Capacity Reference Table (kg Air/min) @ 20°C.

Range	Model	Pressure Setting (bar/PSig)																			
		10.3 150	14.0 203	16.2 235	17.2 250	20.7 300	24.1 350	24.8 360	25.9 375	27.6 400	31.0 450	40.0 560	42.0 609	46.0 667	60.0 870	80.0 1160	100.0 1450	120.0 1740	130.0 1885		
High Pressure	5700	N/A																			
Standard	526E	3.0	3.5	3.7	4.4	5.1	5.2	5.4	5.8	6.5	N/A										
	5230A 5231A 5231B	N/A	5.1	5.8	6.2	7.4	8.5	8.8	9.1	9.7	10.9	N/A									
	5701AX 5701GX	N/A																			
X-Series	5230AX 5231AX 5231BX	5.2	6.9	7.9	8.4	10.0	11.5	11.9	12.4	13.2	14.7	18.9	19.8	21.7	N/A						
Standard	5232A 52/5340 52/5342	8.3	11.1	12.7	13.5	16.1	18.6	19.1	19.9	21.2	23.7	N/A									
High Pressure	5702 5702A 5702B 5702C	N/A																			
Ammonia	5600	13.9	18.5	21.3	22.5	26.9	31.1	32.0	33.3	35.5	39.7	N/A									
Standard	52/5344 52/5344A/P	15.5	20.6	23.6	25.0	29.9	34.6	35.5	37.0	39.4	N/A										
Ammonia	5601 5602	16.2	21.5	24.7	26.1	31.1	36.0	37.0	38.6	41.1	46.0	N/A									
	5603	17	22.7	26	27.5	32.8	38.0	39.1	40.7	43.3	48.5	N/A									
	5604	32.4	43.1	49.4	52.3	62.4	72.2	N/A													
Standard	52/5345 52/5346	33.3	44.2	50.7	53.7	64.1	74.2	76.2	79.5	84.5	94.6	N/A									