SPX

Air/Liquid Bypass Valves

MODELS 1701-1, 170-2 AND 1701-3

Automatically Depressurize Your Unit

With the Hankison By-Pass Valve you can service your system components and still use the system. The By-Pass Valve eliminates the expensive installation costs and space limitations of conventional three valve by-pass systems. It can be used with gases and liquids compatible with nylon Buna N and brass.

EASY TO INSTALL

- No need for separate valves and fittings to braze them into proper sequence
- All parts are enclosed in one integral unit
- Compression fittings utilize a reusable rubber ferrule
- Metal to plastic design makes fittings completely rotatable and eliminates leakage
- Compact design permits ease of installation

TWO TYPES TO CHOOSE FROM

1701-1 – Non-Bleed Type
When this model is in by-pass mode, the component being by-passed remains pressurized

1701-2 and 1701-3 – Bleed Type
When these models are placed in the by-pass mode, the component being by-passed automatically depressurizes through a bleed hole in the valve

›Hankison®

Air/Liquid Bypass Valve Product Specifications

| Model | Maximum Working Pressure | | Maximum Operating Temperature | | Connections | | Dimensions | | | | | | Weight | |
	psig	bar	°F	°C	Dryer Side	Service Side	A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	lbs	kg
1701-1	200	14.0					4⅝	117	3¼	83	2	51	0.5	0.23
1701-2	200	14.0	120°F	49°C	3/8" Tube	3/8" NPT	4⅝	117	3¼	83	2	51	0.5	0.23
1701-3	200	14.0					4⅝	117	3¼	83	2	51	0.5	0.23

Flow vs. Pressure Drop

Table 1 indicates the pressure drop through both channels of the by-pass valve at various flows at 100 psig (7 bar). For pressures other then 100 psig (7 bar) multiply pressure drop from Table 1 at the required flow by the pressure correction factor from Table 2 that corresponds to your system's operating pressure.

For example: With the valve on line and flow at 5 scfm and system pressure at 125 psig, find corrected pressure drop by multiplying 0.19 from Table 1 by 0.82 from Table 2. The pressure drop at these conditions is (0.19 x 0.82) = 0.16 psid. To find pressure drop through valve in by-pass mode divide corrected pressure drop by 2. In this case pressure drop in the by-pass mode would be 0.08 psid.
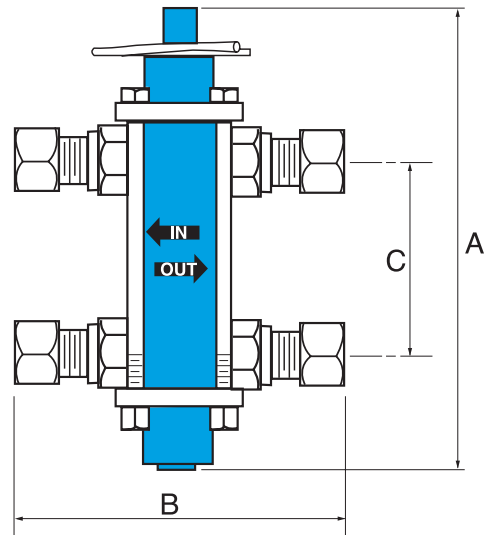
Table 1 – Flow vs. Pressure Drop @ 100 psig

Flow								
scfm	5	7.5	10	15	20	25	30	35
nm³/h	0.14	0.21	0.28	0.42	0.57	0.71	0.85	0.99

Pressure Drop								
psig	0.19	0.45	0.85	2.1	3.9	6.3	9.3	13.0
bar	0.01	0.03	0.06	0.15	0.27	0.44	0.65	0.91

Table 2 – Pressure Correction Factors

| System Pressure | psig | 40 | 50 | 60 | 80 | 100 | 125 | 150 | 175 | 200 |
	nm³/h	2.8	3.5	4.2	5.6	70	8.8	10.5	12.3	14.1
Multiplier		2.1	1.8	1.5	1.2	1.0	0.82	0.70	0.60	0.53