



CSE Manual and Auto Control Divert Valve

Concept 概念

Unique meets the highest demands of your process in terms of hygiene and safety. It is built on a well-proven platform from an installed base of more than one million valves.

獨特的滿足您的過程在衛生和安全方面的最高要求。它建在一個經過驗證的平台上，安裝了超過一百萬個閥門。

Working principle 工作準則

The valve is a pneumatic seat valve in a hygienic and modular design for a wide field of duties, e.g. as a shut-off valve with two (2) or three(3) ports or as a change-over valve with three (3) to five (5) ports. The valve is remote-controlled by means of compressed air. It has few and simple moveable parts which results in a very reliable valve and low maintenance cost.

該閥是一種氣動座閥，其衛生和模塊化設計用於寬領域的工作，例如，作為具有兩（2）或三個的截止閥（3）端口或具有三（3）至五（5）個端口的轉換閥。閥門通過壓縮空氣進行遠程控制。它具有幾個和簡單的可移動部件，這導致非常可靠的閥和低維護成本。

Standard design 標準設計

The Unique Single Seat Standard valve comes in a one or two body configuration. To ensure a high degree of flexibility the valve seat between the two bodies in the Change-over version is loose. The valve features an optimized life span of the seals through a defined compression design. The actuator is connected to the valve body using a yoke and all components are assembled with clamp rings.

獨特的單座標準閥採用一體或兩體結構。為了確保高度的靈活性，換向型中兩個閥體之間的閥座是鬆動的。該閥通過定義的壓縮設計具有優化的密封壽命。致動器使用軛架連接到閥體，所有組件都用夾緊環組裝。

TECHNICAL DATA 技術數據

Temperature 溫度

Temperature range 10°C to +140°C
(EPDM)

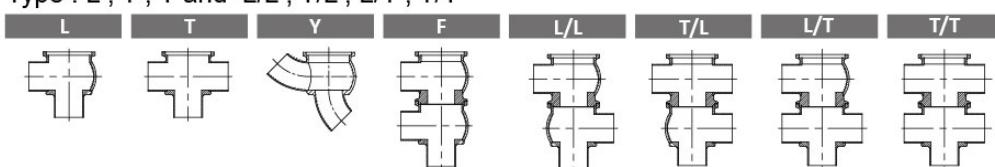
Pressure 壓力

Max. product pressure 1000 kPa (10 bar)
Min. product pressure Full vacuum
Air pressure 500 to 700 kPa (5 to 7 bar)

Valve Body Combinations 閥體組合



Type : L , T , Y and L/L , T/L , L/T , T/T



Actuator function 氣動頭功能

- A. Pneumatic downward movement, spring return 氣動向下運動，彈簧復位。.
 - B. Pneumatic upward movement, spring return 氣動向上運動，彈簧復位。.
 - Pneumatic upward and downward movement (A/A) 氣動上下運動 (A / A)。

PHYSICAL DATA 物理數據

Materials

Product wetted steel parts : 1.4404 (316L)

Other steel parts 1.4301 (304)

External surface finish Semi-bright (blasted)

Internal surface finish Bright (polished), Ra < 0.8 µm

Product wetted seals : EPDM

Other seals NBR

Options 選項

- A Male parts or clamp liners in accordance with required standard 陽性部件或夾具襯墊符合要求的標準。.
 - B Control and Indication: IndiTop, ThinkTop or ThinkTop Basic 控制和指示 : IndiTop · ThinkTop 或 ThinkTop Basic。.
 - C Product wetted seals in HNBR or FPM HNBR 或 FPM 中的產品潤濕密封。.
 - D Plug seals HNBR, FPM or TR2 plug (floating PTFE design) 插頭密封件 HNBR · FPM 或 TR2 插頭 (浮動 PTFE 設計)。.
 - E External surface finish bright 表面光潔。.

Please note! □ □ □

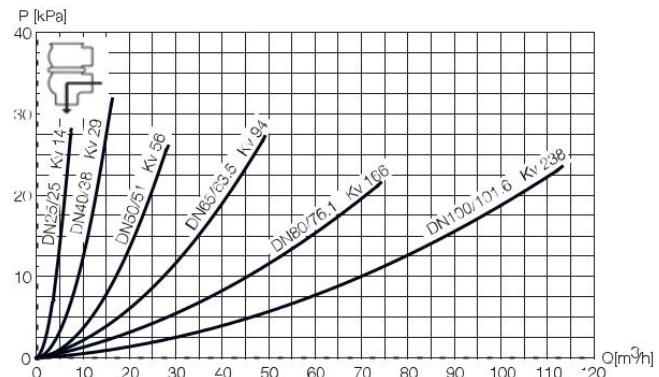
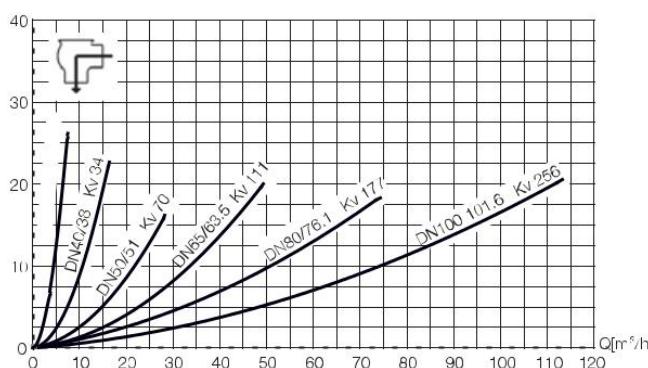
Opening/closing time will be effected by the following: ☐ / ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ :

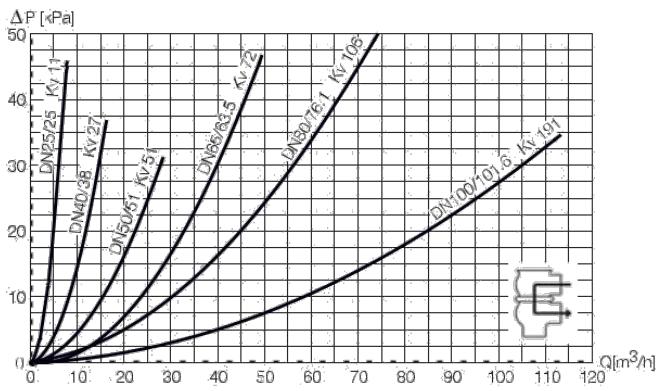
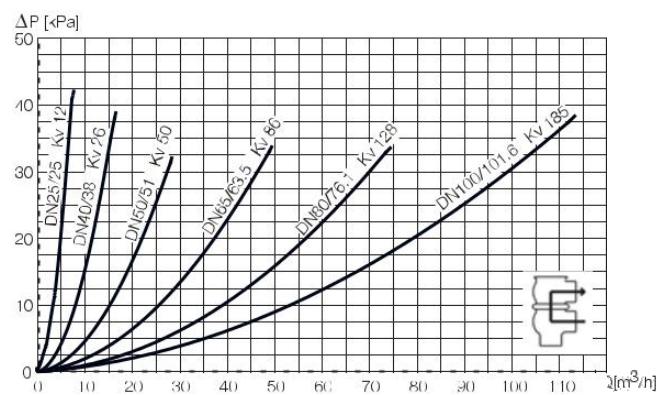
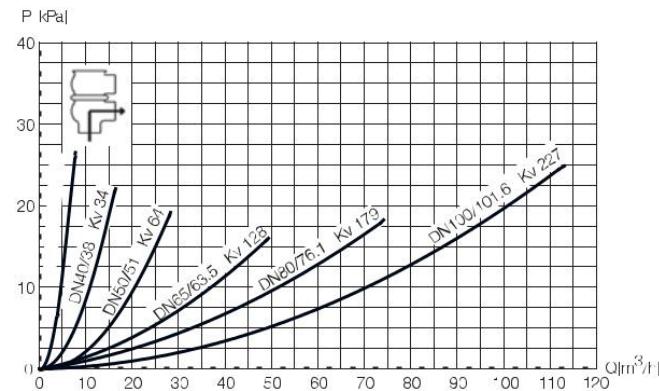
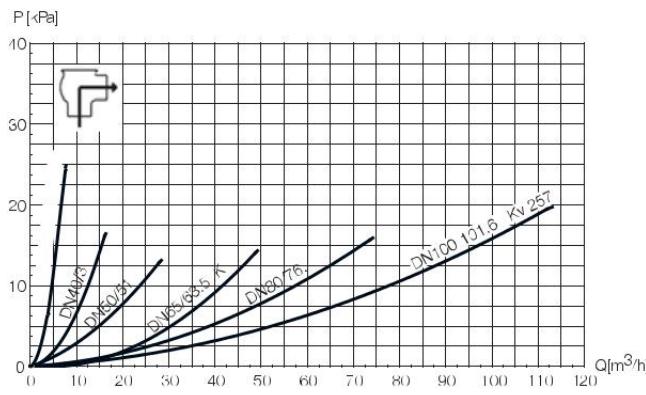
Air Connections Compressed air: □ □ □ □ □ □ □ □ :

R 1/8" (BSP), internal thread.

	Air consumption (litres free air) for one stroke		
Size	DN25-40	DN50-65	DN80100
DN/OD 25-38 mm	DN/OD 51-63.5 mm	DN/OD 76.1101.6 mm	
NO and NC	0.2 x air pressure [bar]	0.5x air pressure [bar]	1.3x air pressure [bar]
A/A	0.5 x air pressure [bar]	1.1x air pressure [bar]	2.7x air pressure [bar]

Pressure drop/capacity diagrams





Note! □ □

For the diagrams the following applies: □ □ □ □ □ □ :

Medium: Water (20°C)

□ □ : □ (20°C)

Measurement: In accordance with VDI2173

□ □ : □ □ VDI2173

Pressure drop can also be calculated in Anytime configurator.

□ □ □ □ □ □ Anytime □ □ □ □ □ □ .

Pressure drop can also be calculated with the following formula 壓降也可以用以下公式計算 : : $Q = Kv \times \sqrt{\Delta p}$

Where

Q = Flow in m^3/h .

Δp = m^3/h at a pressure drop of 1 bar (see table above). Δp = Pressure drop in bar over the valve.

How to calculate the pressure drop for an ISO 2.5" shut-off valve if the flow is 40 m^3/h 2.5" shut-off valve, where $Kv = 111$ (See table above).

$Q = Kv \times \sqrt{\Delta p}$

$40 = 111 \times \sqrt{\Delta p}$

$$\Delta P = \left(\frac{40}{111} \right)^2 = 0.13 \text{ bar}$$

(This is approx. the same pressure drop by reading the y-axis above) (這是通過讀取上面的 y 軸大約相同的壓降)

Pressure data for Unique Single Seat Valve standard

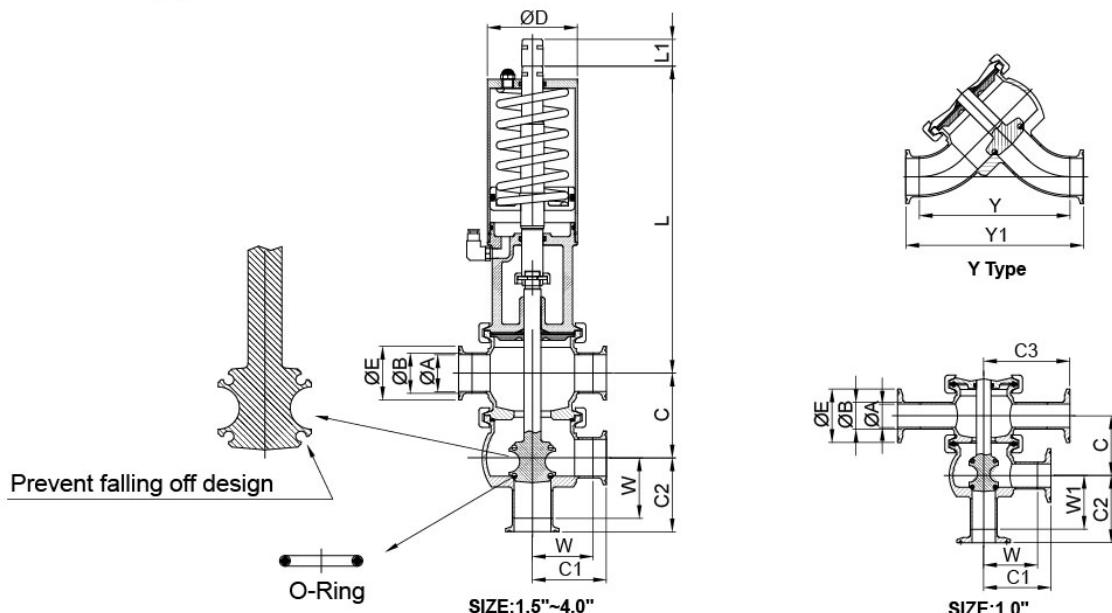
Actuator type / function : 10. SA. Pneumatic downward movement, spring return (NO-lower seat)

20. AS. Pneumatic upward movement, spring return (NC-lower seat)

30. AA. Pneumatic upward and downward movement (A / A)

Actuator/Valve Body combination and direction of pressure									
NO :Normal open									
NC :Normal close									
A/A : Air/Air double action									
Stop and change-over valves- Max. pressure without leakage at the valve seat									
○ = Max. air input pressure as 8 bar									
→ = Tube-Line flow Pressure									
Air pressure (bar)	10 (NO)	5 10	8 (NO)	5 20 (NC)	20 (NC)	5 30	8 30	5 30	6 30
Actuator Type/Function									
Valve size (Max. Pressure)	1"	9.5	10	10	9.5	10	10	10	10
	1 1/2"	4.5	7.0	10	4.5	7.0	9.0	10	10
	2"	4.5	4.0	5.0	4.5	4.0	9.0	10	9.0
	2 1/2"	3.0	3.0	4.0	3.0	2.5	8.0	9.0	6.0
	3"	5.0	4.0	6.0	4.5	5.0	10	10	10

Dimensions (mm)尺寸



SIZE	1"	1" mm	1 1/2"	1 1/2" mm	2"	2" mm	2 1/2"	2 1/2" mm	3"	3" mm	4"	4" mm
ØA	0.870	22.1	1.370	34.8	1.870	47.5	2.370	60.2	2.870	72.9	3.835	97.4
ØB	1.000	25.4	1.500	38.1	2.000	50.8	2.500	63.5	3.000	76.2	4.000	101.6
C	2.232	56.7	3.150	80	3.638	92.4	4.724	120	5.039	128	5.937	150.8
C1	2.303	58.5	3.197	81.2	3.374	85.7	4.059	103.1	4.583	116.4	4.500	114.3
C2	1.992	50.6	2.402	61	2.575	65.4	2.839	72.1	3.138	79.7	4.500	114.3
C3	3.205	81.4										
W	2.000	59.9	2.697	68.5	2.874	73	3.559	90.4	4.083	103.7	3.878	98.5
W1	2.000	52	2.260	57.4	2.630	66.8	3.130	79.5	3.783	96.1	3.878	98.5
ØD	2.362	60	3.346	85	3.346	85	5.236	133	5.236	133	5.236	133
L	6.047	153.6	11.417	290	11.665	296.3	14.402	365.8	14.524	368.9	25.421	645.7
L1	0.669	17	0.984	25	0.984	25	1.260	32	1.417	36	1.496	38
Y	3.783	96.1	5.602	142.3	6.638	168.6	8.331	211.6	9.634	244.7	11.933	303.1
Y1	4.783	121.5	6.602	167.7	7.638	194	9.331	237	10.634	270.1	13.177	334.7