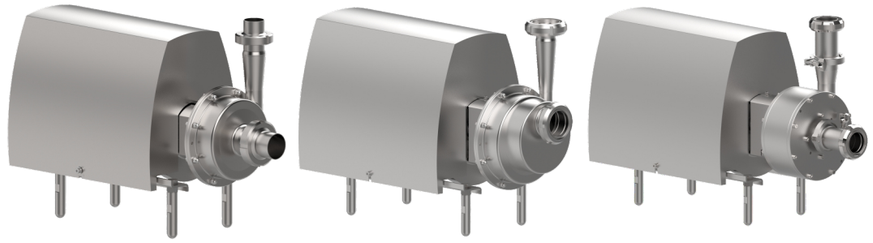
Our Range of Flow Products



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IDMC® LIMITED

PROCESSING & PACKAGING **SOLUTIONS** TO MAKE **FOOD** SAFE

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Pneumatic Seat Valve

IDMC Pneumatic Seat Valves are designed for versatility and reliability in hygienic applications across dairy, food, beverage, brewery, and pharma industries, showcasing their adaptability across diverse industrial processes.

These valves cater to applications with stringent hygiene requirements. With a compact and modular design, ensure easy integration and maintenance. The moving parts enhance reliability and a range of optional features allow customization to specific process requirements, contributing to their widespread applicability and low total cost of ownership.

The valves boast exceptional hygiene and durability features, including superior cleanability with a smooth inner valve body, extended seal life through defined seal compression, enhanced product safety with static seal leak detection and protection against full vacuum.

Inherent Features

- Designed for gentle fluid flow with minimum pressure drop across the valve
- The control unit has 360° view of three LEDs indicating the operating / error state of the valve
- Control unit with the option of “Hard Wired” or “ASi” communication
- Available in Normally Open (NO) and Normally Closed (NC) configuration
- Valve body combination: L, T, TT, LL, LT, TL with different orientation
- The valve body is machined from solid bar stock
- No special tools needed for maintenance
- Designed as per EHEDG guidelines

Technical specifications

Material and options

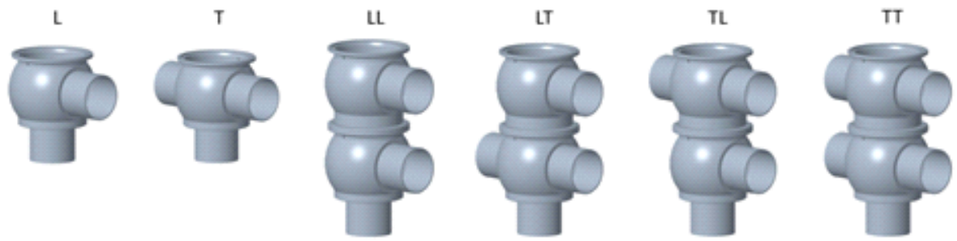
Product wetted steel parts (MoC)	1.4404 (AISI 316L stainless steel)
Wetted parts surface finish	Ra < 0.8 µm (Standard) / EP (Option)
Other parts	1.4301 (AISI 304 stainless steel)
Product wetted elastomers	EPDM (Standard) / NBR & FPM (Options)
Product wetted elastomers confirm to	US FDA 21 CFR 177.2600
Other elastomers	NBR / PTFE

Operating Data

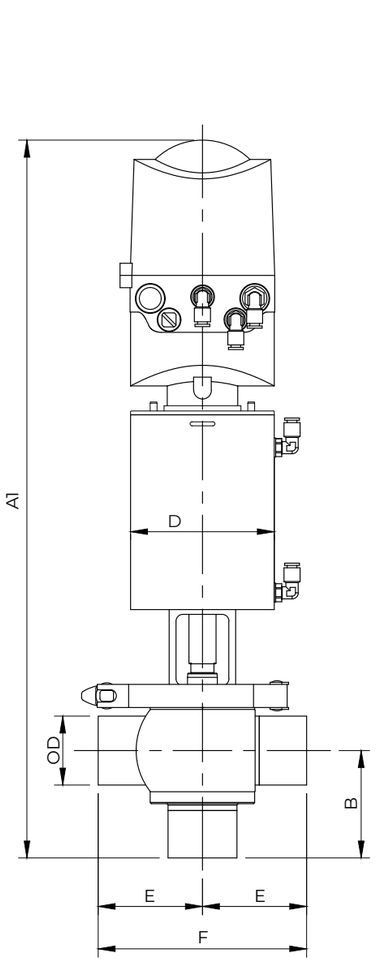
Pressure and temperature

Maximum product pressure	up to 1000 kPa (10 bar)
Minimum product pressure	Full vacuum
Air Pressure	500 to 700 kPa (5 to 7 bar)
Temperature range	-10 °C to +125 °C

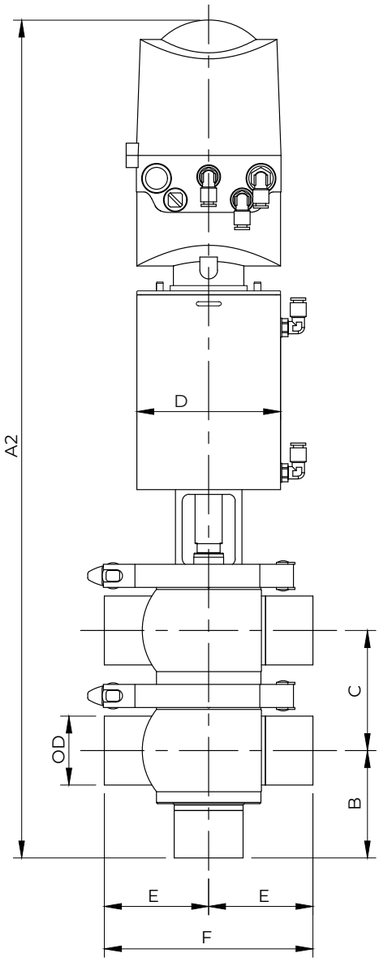
Available Valve Body Combinations



Standard Dimensions



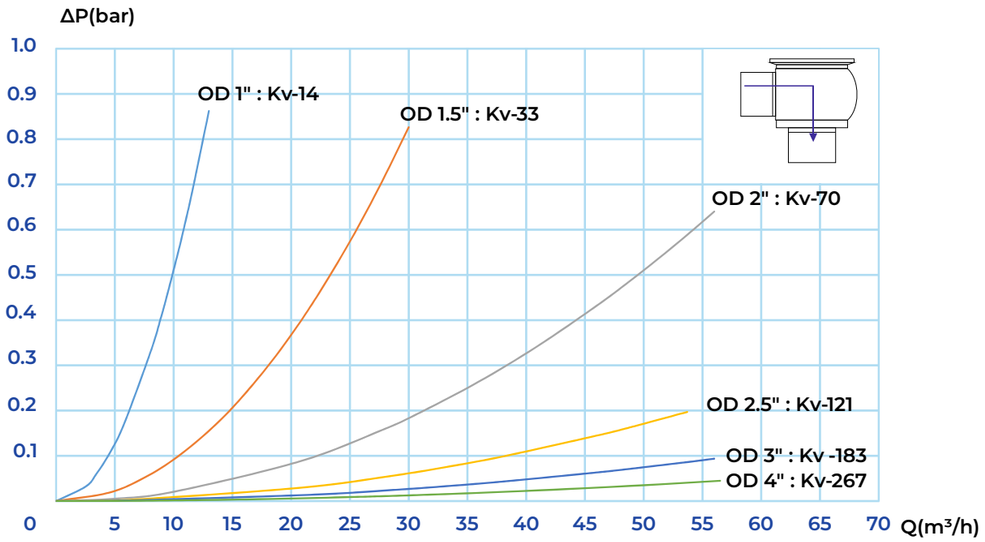
Shut-off Valve

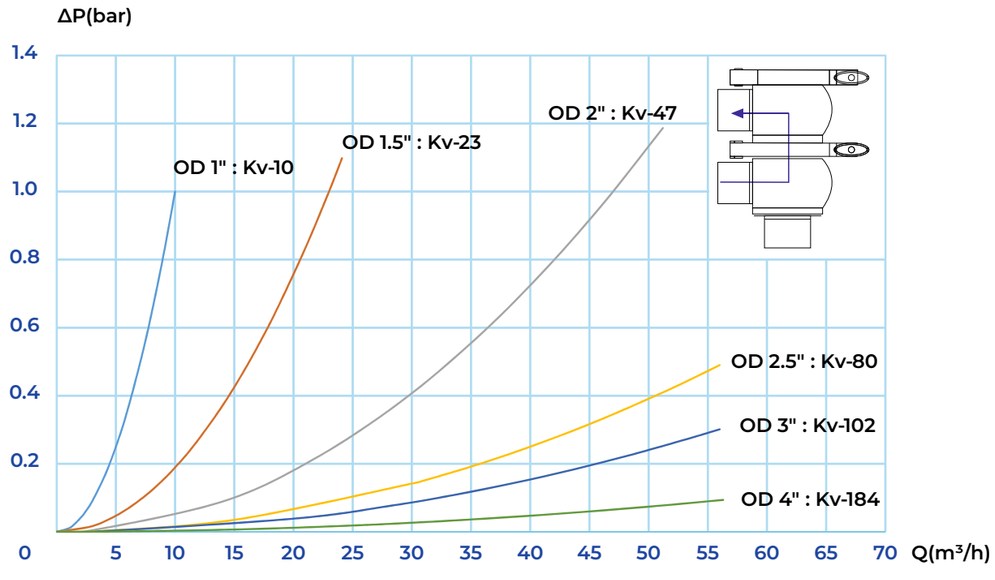


Flow Divert Valve

Valve Sizes	Dimensions in mm							
	OD	A1	A2	B	C	D	E	F
1"	25.4	491	548	61	58	106	62	124
1.5"	38.1	506	583	68	78	106	69	137
2"	50.8	529	618	79	89	106	77	154
2.5"	63.5	544	648	87	105	106	85	169
3"	76.2	615	735	100	120	131	89	179
4"	101.6	637	798	110	161	131	102	205

Pressure Drop / Capacity Diagram





Note : Diagrams mentioned considering water as media

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85-03

Mixproof Valve

Reliable and robust, IDMC Mixproof Valves are most suitable to handle the concurrent flow of two distinct products or fluids in dairy, food, beverages, brewery and pharmaceutical applications, within a single valve at vital pipeline junctions, without the risk of cross-contamination.

The unique design of Mixproof valves comes with balanced plugs to take care of pressure surges during operation. Cleaning of the upper and lower seats of IDMC Mixproof Valves is ensured since the feedback of this operation is available for real-time monitoring.

Leakage detection hole facilitates visual inspection without the need for valve disassembly, offering immediate notification of potential wear in components. The upper/lower seat cleaning movement is independent during the CIP of the respective line. The valve operation ensures spillage-free product switchover between two lines. Leakage of product during seal failure is detected instantly through the leakage chamber.

Inherent Features

- Designed for gentle fluid flow with minimum pressure drop across the valve
- The control unit has 360° view of three LEDs indicating the operating / error state of the valve
- Control unit with the option of “Hard Wired” or “ASi” communication
- Built-in contactless seat position measurement for precise position control
- Valve body combination: TT, LL, LT, TL with various orientation
- Valve body machined from solid bar stock
- No special tools needed for maintenance
- Designed as per EHEDG guidelines

Technical specifications

Material and options

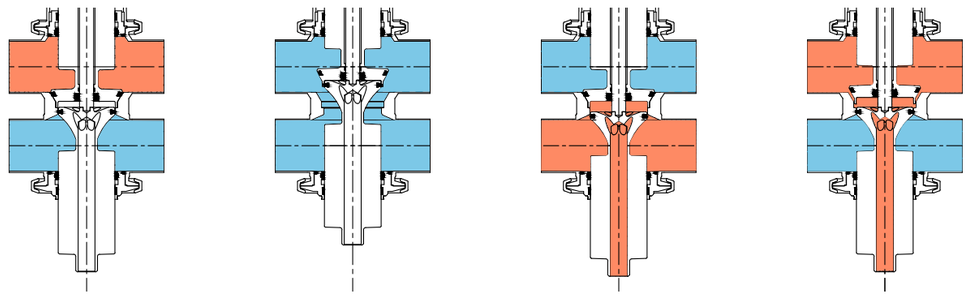
Product wetted steel parts (MoC)	1.4404 (AISI 316L stainless steel)
Wetted parts surface finish	Ra < 0.8 µm (Standard) / EP (Option)
Other parts	1.4301 (AISI 304 stainless steel)
Product wetted elastomers	EPDM (Standard) / NBR & FPM (Options)
Product wetted elastomers confirm to	US FDA 21 CFR 177.2600
Other elastomers	NBR / PTFE

Operating Data

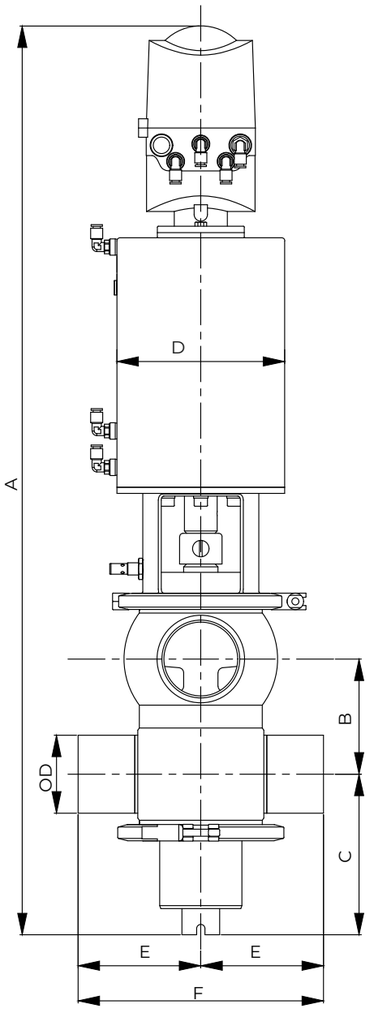
Pressure and temperature

Maximum product pressure	up to 1000 kPa (10 bar)
Minimum product pressure	Full vacuum
Air Pressure	500 to 700 kPa (5 to 7 bar)
Temperature range	-10 °C to +125 °C

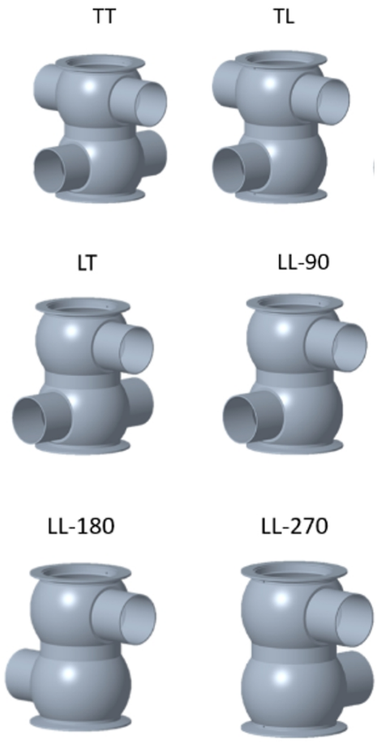
Valve Operation



Standard Dimensions

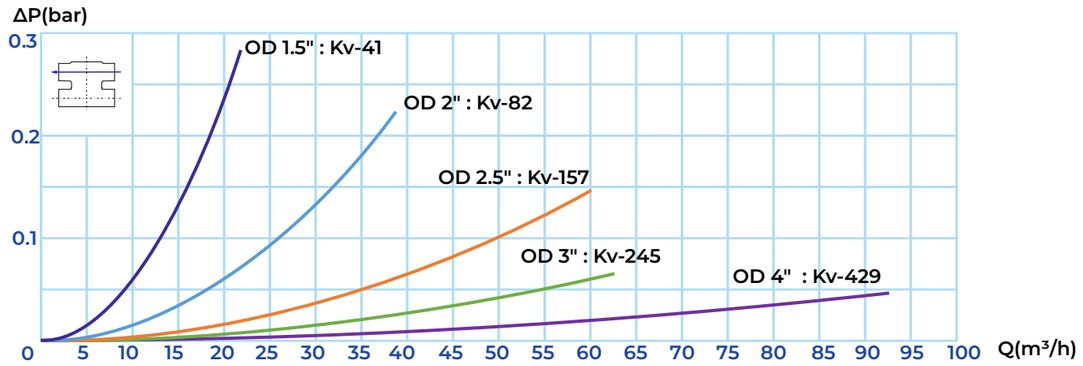


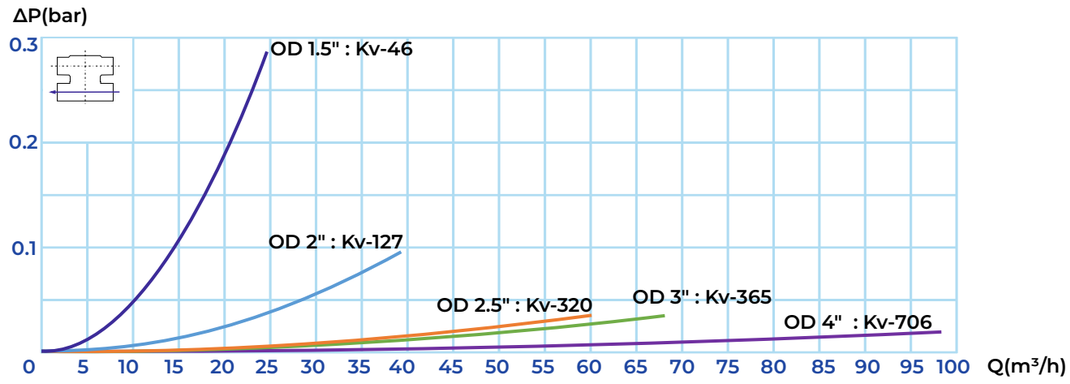
Available Valve Body Combinations

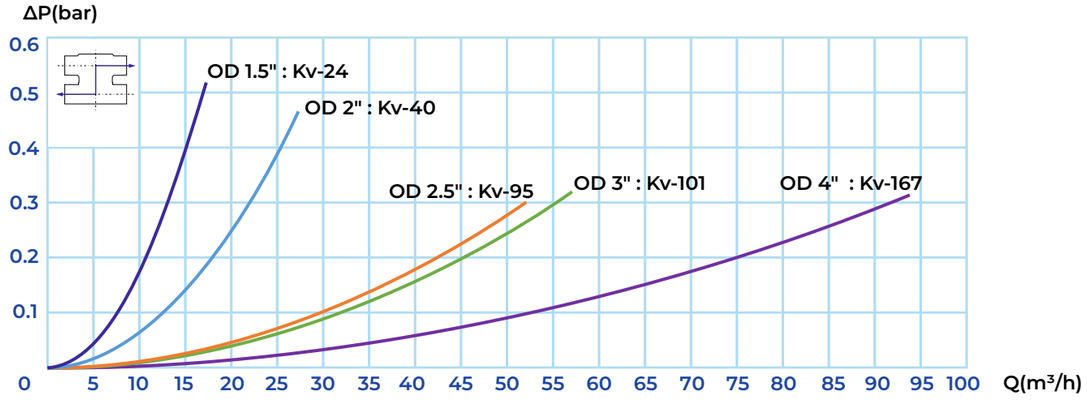


Valve Sizes	Dimensions in mm						
	OD	A	B	C	D	E	F
1.5"	38.1	699	62	103	124	120	240
2"	50.8	699	75	97	124	120	240
2.5"	63.5	888	100	163	164	120	240
3"	76.2	888	113	157	164	120	240
4"	101.6	926	137	149	164	120	240

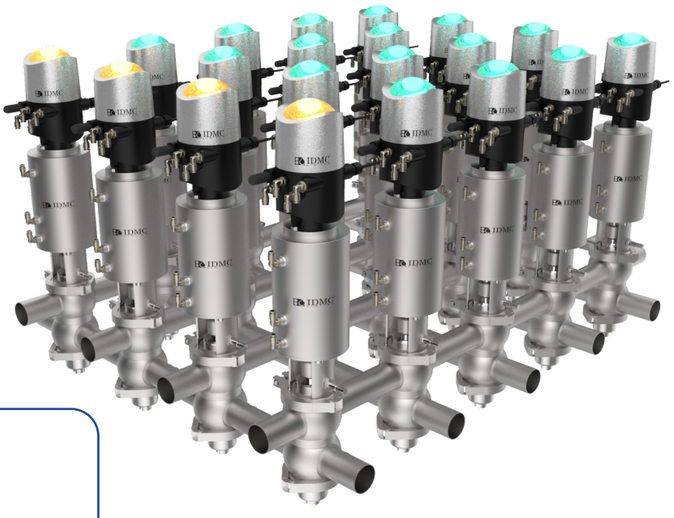
Pressure Drop / Capacity Diagram







Note : Diagrams mentioned considering water as media



A3
85-03

Butterfly Valve

IDMC Butterfly Valves, function as stop valves. The valve is available with a pneumatic actuator for automated use or with a standard handle for manual operation, which has a locking facility for open or closed positions and hence stand out for their robustness and reliability. Their space-efficient design renders them ideal for a wide array of applications. With easy installation and servicing, these valves offer a flexible and user-friendly solution for diverse industries, including dairy, food, beverage, brewery and other food industries.

The valve construction offers a substantial opening area and low flow resistance. The pneumatic actuator converts axial piston motion into a 90° shaft rotation, ensuring proper valve seat closure.

The valve is also available in a flange version, with two flanges and two flange seal rings for easy removal of the valve body without dismantling piping setups.

Inherent Features

- Designed for in-line fluid flow with minimum pressure drop across the valve
- The control unit of the pneumatic Butterfly valve has 360° view of three LEDs indicating the operating / error state
- Control unit with the option of “Hard Wired” or “ASi” communication
- Valve body machined from forgings
- No special tools needed for maintenance

Technical specifications

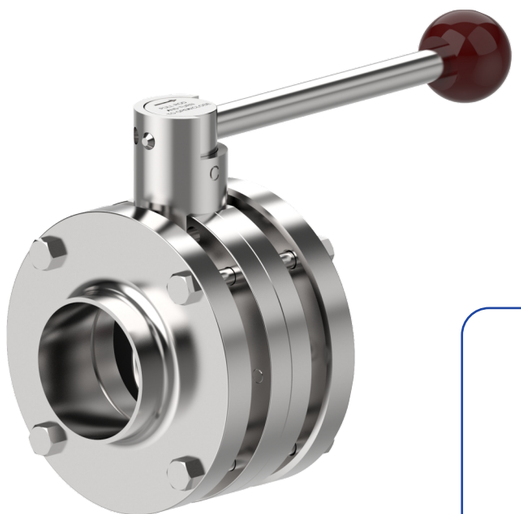
Material and options

Product wetted steel parts (MoC)	1.4404 (AISI 316L SS) / 1.4301 (AISI 304 SS)
Wetted parts surface finish	R_a < 0.8 µm
Other parts	1.4301 (AISI 304 SS)
Product wetted elastomers	EPDM (Standard) / NBR (Options)
Product wetted elastomers confirm to	US FDA 21 CFR 177.2600
Other elastomers	NBR / PTFE

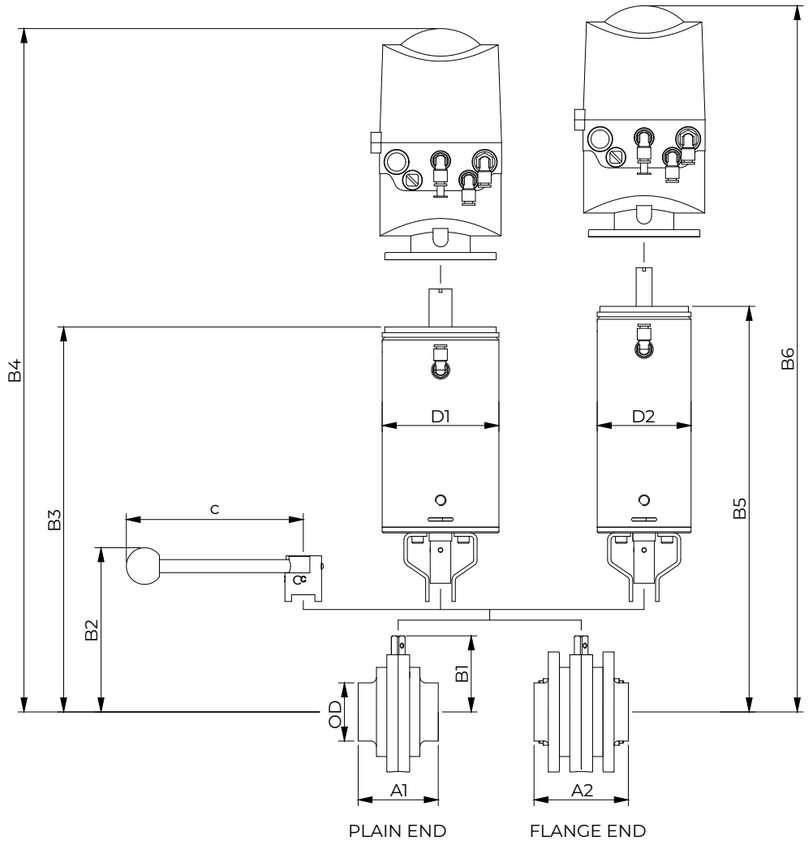
Operating Data

Pressure and temperature

Maximum product pressure	up to 1000 kPa (10 bar)
Minimum product pressure	Full vacuum
Air Pressure	500 to 700 kPa (5 to 7 bar)
Temperature range	-10 °C to +125 °C



Standard Dimensions



Valve Sizes	Dimensions in mm											
	OD	A1	A2	B1	B2	B3	B4	C	D1	B5	B6	D2
1"	25.4	70	82	53	78	220	422	155	102	259	461	71
1.5"	38.1	70	82	56	80	223	425	155	102	262	464	71
2"	50.8	70	86	67	91	233	435	155	102	272	474	71
2.5"	63.5	80	92	70	95	236	438	155	102	-	-	-
3"	76.2	80	96	77	102	243	445	155	102	-	-	-
4"	101.6	90	104	93	118	259	461	155	102	-	-	-
6"	152.4	90	112.6	139	166	-	-	292	-	-	-	-

Flow Control Valve

IDMC Flow Control Valves are designed for hygienic applications to accurately control and regulate the product flow in dairy, food, beverage, brewery and pharmaceutical sectors.

The valve is equipped with a valve body, valve stem, plug seal, and actuator with an advanced electro-pneumatic positioner. The positioner has a distinct feature of local display of the valve operating position and diagnostic as well. However, the positioner can be provided without a local display.

The flow across the control valve can also be controlled through a PID controller and I/P converter, providing versatile and precise regulation options.

IDMC Flow Control valves find application in regulating flow, controlling pressure, or precisely mixing liquids. They are used in diverse scenarios, such as pressure control within heat exchangers, maintaining tank level in conjunction with a level transmitter in the balance tank, or accurately dosing various types of media.

In the case of a manual flow control valve, the precise regulation of valve flow is achieved by adjusting a wheel-type handle manually which is generally used in manual process plants.

IDMC Flow regulating valves are tailored to meet stringent process requirements in terms of hygiene and safety.

Inherent Features

The plug's design facilitates precise flow control, ensuring the attainment of the necessary Kv factor

The positioner receives the input signal in the form of 4-20 mA and controls the flow precisely

Easy start-up via tune function for position and process control

Valve body machined from solid bar stock

No special tools needed for maintenance

Designed as per EHEDG and 3A guidelines

Technical specifications

Material and options

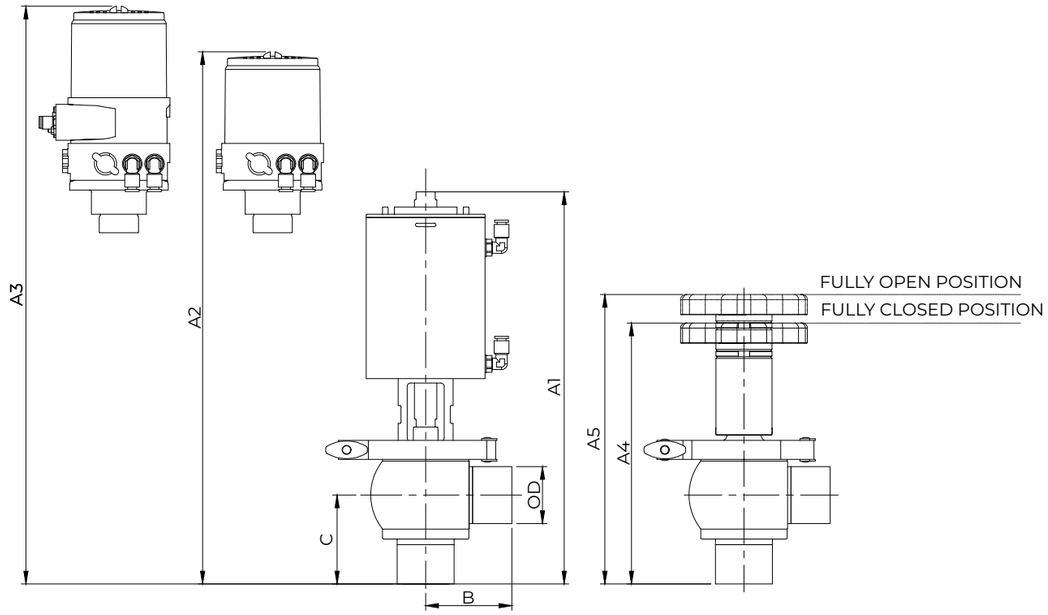
Product wetted steel parts (MoC)	1.4404 (AISI 316L stainless steel)
Wetted parts surface finish	R_a < 0.8 µm (Standard) / EP (Option)
Other parts	1.4301 (AISI 304 stainless steel)
Product wetted elastomers	EPDM (Standard) / NBR (Options)
Product wetted elastomers confirm to	US FDA 21 CFR 177.2600
Other elastomers	NBR / PTFE

Operating Data

Pressure and temperature

Maximum product pressure	up to 1000 kPa (10 bar)
Air Pressure	500 to 700 kPa (5 to 7 bar)
Temperature range	-10 °C to +125 °C

Standard Dimensions



Valve Sizes	Dimensions in mm							
	OD	A1	A2	A3	A4	A5	B	C
1"	25.4	330	435	476	-	-	62	61
1.5"	38.4	330	450	491	212	232	69	68
2"	50.8	350	474	515	232	258	77	79
2.5"	63.5	418	542	583	244	273	85	87
3"	76.2	438	561	602	265	296	89	100
4"	101.6	460	583	624	-	-	102	110

Note :

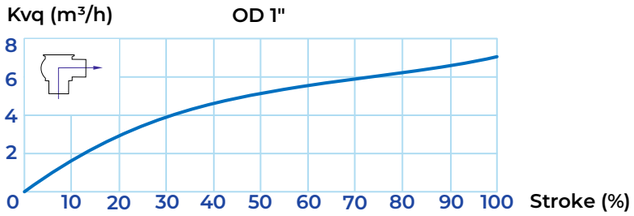
Pneumatic control valves

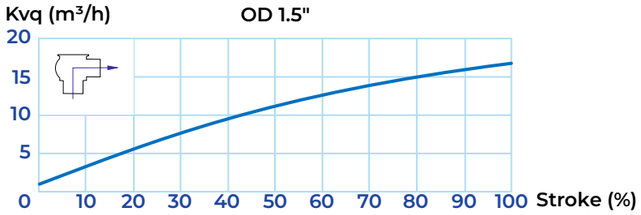
Dimensions A1 are for Normally Closed type valve without Positioner
Dimensions A2 are of Positioner without digital display (model no. 8694)
Dimensions A3 are of Positioner with digital display (model no. 8693)

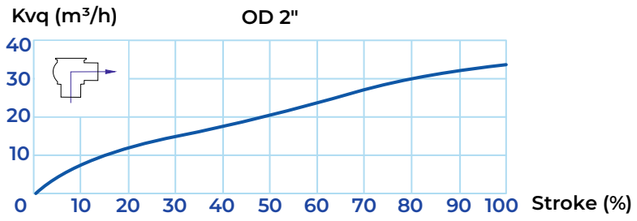
Manual control valves

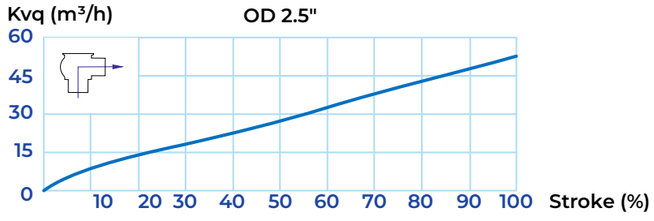
Dimensions A4 are for Normally Closed condition of valves
Dimensions A5 are for Fully Opened condition of valves

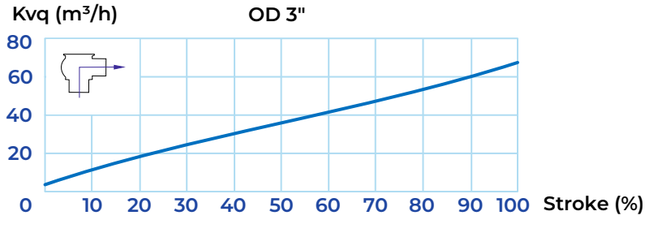
Pressure Drop / Capacity Diagram

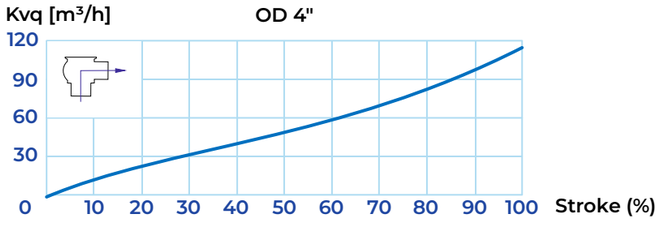












Constant Pressure Modulating Valve

IDMC Constant-Pressure Modulating (CPM) Valves effectively control and maintain constant pressure in the system, meeting the stringent requirements of food safety standards. The CPM valve can be utilized in diverse industries, including dairy, beverage, brewery and other food industries.

The valve is equipped with a valve plug and a diaphragm backed with a set of triangular stainless steel sections. It operates by maintaining a constant air pressure from the top, thereby ensuring a consistent product pressure throughout the system up to the valve's inlet.

Operated remotely through compressed air, the diaphragm and valve plug system responds promptly to changes in product pressure. This automated adjustment ensures constant pressure at pre-set values in the inlet, contributing to efficient and reliable operation. The valve not only delivers secure pressure control but also features a self-draining design, enhancing cleanliness and making it easy to install and operate.

Inherent Features

- Designed for direct assembling of the valve into a sanitary piping system
- Easy to install, safe to operate and simple to maintain
- Operation through a PID controller and I/P converter is possible

Technical specifications

Material and options

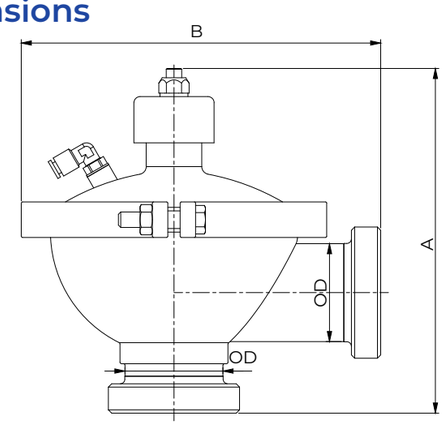
Product wetted steel parts (MoC)	1.4404 (AISI 316L SS)
Wetted parts surface finish	R_a < 0.8 µm (Standard) / EP (Option)
Other parts	1.4301 (AISI 304 SS)
Product wetted elastomers	PTFE coated EPDM food grade rubber
Product wetted elastomers confirm to	US FDA 21 CFR 177.2600
Other elastomers	NBR / PTFE / EPDM

Operating Data

Pressure and temperature

Maximum product pressure	up to 1000 kPa (10 bar)
Air Pressure	0 to 600 kPa (0 to 6 bar)
Temperature range	-10 °C to +125 °C

Standard Dimensions



Valve Sizes	Dimensions in mm		
	OD	A	B
1.5"	38.1	190	229
2"	50.8	208	229
2.5"	63.5	223	233
3"	76.2	242	253

Pressure drop / capacity diagram