WRS

DOSING PUMP ACCESSORIES

WRS S.R.L.

www.wrsdosing.au

WRS Priority is providing the market expertise you need by delivering tomorrow's innovative fluid and material transfer solutions today. WRS continues to build superior products to meet our customers' toughest chemical dosing applications. WRS consistently delivers the most reliable, comprehensive range of dosing pumps on the market today. Our professional and experienced research and development team continues to make huge strides in innovation for the future.

CONTENT

OVERVIEW 3
BACK PRESSURE / SAVETY VALVE 4
PULSATION DAMPENER 6
CALIBRATION COLUMN 9
Y-STRAINER 10
IN-LINE (STATIC) MIXER 11
PRESSURE GAUGE 12
ROTAMETER (FLOAT-TYPE FLOW METER) 13
AIR RELIEF VALVE 16
ACTUATED VALVES 17

OVERVIEW

Back Pressure Valve	Pulsation Dampener	Calibration Column
		

Y-Strainer	In-Line Mixer	Pressure Gauge
		

Rotameter	Air Relief Valve	Actuated Valves
		

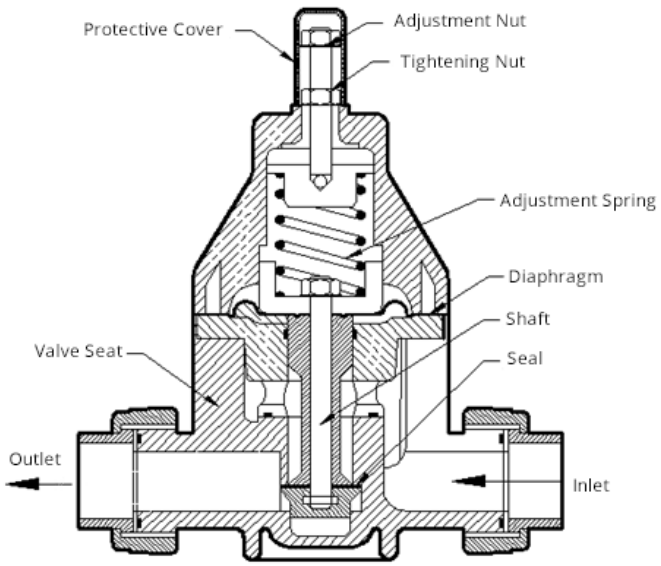
BACK PRESSURE / SAVETY VALVE

Safety Valve is one of the most crucial accessories in a chemical dosing system. It is also referred as pressure relief valve in the industry. Safety valve helps to prevent system being over pressure. In a typical setup, it shall be installed along the return pipeline after the metering pump. While installing a safety valve, it shall be installed as close as possible towards the dosing pump and there should not be any valve in between. When the pressure in the system pipeline exceeds the preset value, the diaphragm and the shaft are jacked up, and the medium is discharged back to the return pipe. The preset value can be adjusted directly on the safety valve itself. The preset value can be adjusted within 0 – 1Mpa by adjusting the adjustable nut. The relief pressure is generally set higher than the system pressure by 0.1-0.2Mpa and not exceeding the maximum pressure of the metering pump.

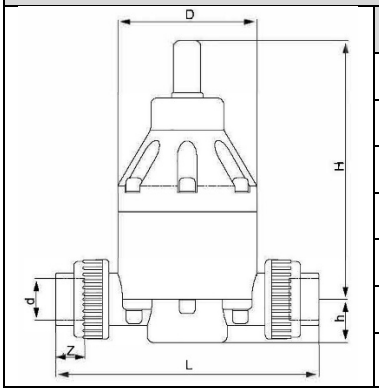
Back pressure valve is very similar to safety valve, but the emphasis is on steady state pressure control instead of on/off actuation. It shall be installed on the positive pressure side along the discharge pipe of the metering pump. A back-pressure valve can prevent the occurrence of siphoning and reduce unstable dosage which is caused by the pressure fluctuation. To adjust the set value, remove the protective cap, rotate the adjusting nut, and set within the range of 0-0.6 MPa. It is commonly used in conjunction with the pulsation damper to reduce the vibration damage towards the system. On the discharge, the flow will be more stable with the installation of back pressure valve.

Features:

- Ensure the system pressure is stable and consistent, prevents over pressurized your system.
- Protect your pumps and ensure system stability.
- With the combination with a dampener,
- Reduce flow fluctuation and protect your system from vibrations caused by the flow fluctuation.
- Diaphragm is made of a combination of PTFE and Rubber. Designed to handle corrosive liquid and ensure top performance sealing without leakage.

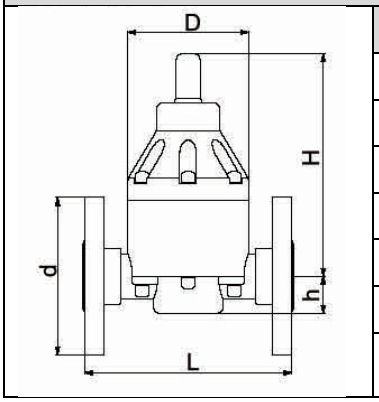


SERIES 186 (STANDARD CONNECTION)



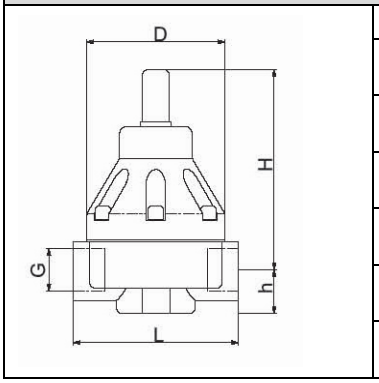
Model	Size	L	H	D	d	z	h
18615	DN15	175	181	82	20	22	27
18620	DN20	174	181	82	25	19	29
18625	DN25	202	198	107	32	21	33
18632	DN32	251	198	107	40	31	35
18640	DN40	285	260	155	50	31	60
18650	DN50	355	260	155	63	39	60
18665	DN65	367	260	155	75	41	65

SERIES 186-F (FLANGE CONNECTION)

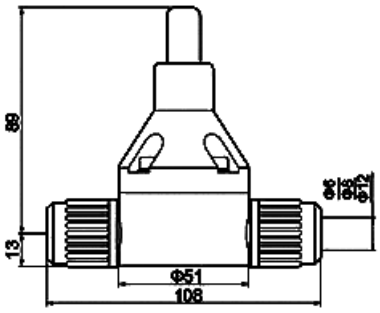


Model	Size	L	D	H	h	d
18615-F	DN15	128	82	181	27	95
18620-F	DN20	130	82	181	29	105
18625-F	DN25	158	107	198	33	115
18632-F	DN32	180	107	198	35	140
18640-F	DN40	220	155	260	60	150
18650-F	DN50	225	155	260	60	165
18665-F	DN65	238	155	260	65	185

SERIES 186-B (STAINLESS STEEL THREADED CONNECTION)



Model	Size	L	D	H	h	G
18615-B	DN15	94	82	140	23	G ½”
18620-B	DN20	95	82	140	23	G ¾”
18625-B	DN25	121	107	160	26	G 1”
18632-B	DN32	121	107	160	26	G 1 ¼”
18640-B	DN40	181	155	207	32	G 1 ½”
18650-B	DN50	181	155	207	32	G 2”

SERIES 186-H (HOSE CONNECTION)	
 	Available Sizes: ϕ6 ϕ 8 ϕ 12 Available Material: PVC PVDF

Material Available	:	UPVC, PPH, CPVC, PVDF, SUS304, SUS316;
Working Pressure	:	0~1.0MPa, 0~1.6Mpa
Inlet/Outlet Size	:	DN15, DN20, DN25, DN32, DN40, DN50, DN65
Connection Type	:	Glue, Threaded, Flange
Diaphragm	:	PTFE + Rubber

PULSATION DAMPENER

A pulsation damper is a common component for eliminating pipe pulsation and it is an accessory that must be provided for a metering pump system. WRS's Pulsation Dampeners are designed to reduce pulsation and vibration in the pipe system that is caused by a metering pump or plunger pump. It ensures a smooth and continuous flow of the system. By removing the pulsation flows, the efficiency and accuracy of the pump system can be increase significantly. On the other hand, it helps to protect the pump, seals, gaskets of the entire systems from vibration and result in a longer lasting safer system. Whether a piston, plunger, air diaphragm, peristaltic, gear, or diaphragm metering pump a WRS Pulsation Dampener placed at the pump's discharge will produce a steady fluid flow up to 99% pulsation free: protecting the entire pumping system from the damaging effects of shock.

- Quick Installation
- In-line Maintenance
- Bodies in a full range of Chemical Resistant materials
- Bladders for even the most corrosive applications
- Produces near steady fluid flow
- 99% pulsation and vibration free
- Protects pumping system from pulsation, water hammer, vibrations, and more.

SERIES LGMQ

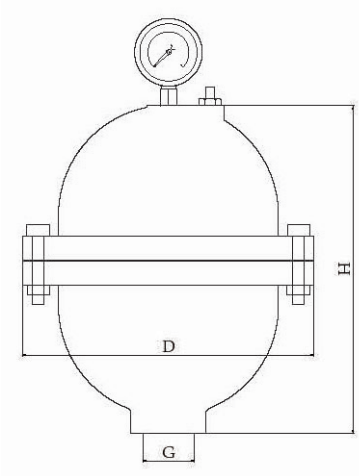
Pressure 1MPa

Material: UPVC, PVDF, SS304, SS316

Connection: Socket / Threaded / Flanged

Sizing: LGMQ dampener minimum volume size shall be at least 12 times of each stroke power (ml).

Model	Volume (L)	Height(H) (mm)	Diameter(D) (mm)	Inlet (G)
LGMQ-0.35	0.35	192	134	DN15
LGMQ-0.6	0.6	202	135	DN20
LGMQ-1.0	1.0	235	158	DN25
LGMQ-1.5	1.5	288	158	DN25
LGMQ-2.0	2.0	338	158	DN32
LGMQ-3.0	3.0	280	230	DN32
LGMQ-4.0	4.0	285	250	DN40
LGMQ-5.0	5.0	385	250	DN40/50
LGMQ-6.0	6.0	485	250	DN40/50



SERIES LGMK-B (Stainless Steel)

Pressure: 1 MPa

Material: SS304/316

Sizing: LGMK dampener minimum volume size shall be at least 26 times of each stroke power (ml).

Model	Volume (L)	H (mm)	D (mm)	Inlet
LGMK-B-0.8	0.8	246	76	G ½”
LGMK-B-1.2	1.2	260	89	G ¾”
LGMK-B-2.0	2.0	300	114	G 1”
LGMK-B-3.5	3.5	340	133	G 1 ¼”
LGMK-B-4.0	4.0	370	133	G 1 ½”

SERIES LGMK (PVC)

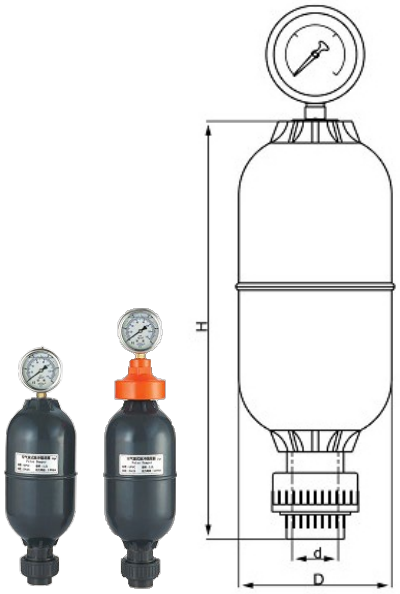
Pressure 1MPa

Material: UPVC

Standard Connection: Socket

Sizing: LGMK dampener minimum volume size shall be at least 26 times of each stroke power (ml).

Model	Volume (L)	H (mm)	d (mm)	D (mm)	Inlet
LGMK-0.6	0.6	201	20	85	DN15
LGMK-0.9	0.9	280	25	100	DN20
LGMK-1.2	1.2	292	32	110	DN25
LGMK-2.2	2.2	316	40	130	DN32
LGMK-3.2	3.2	323	50	162	DN40
LGMK-5.0	5.0	446	50	162	DN40
LGMK-10	10	760	63	162	DN50



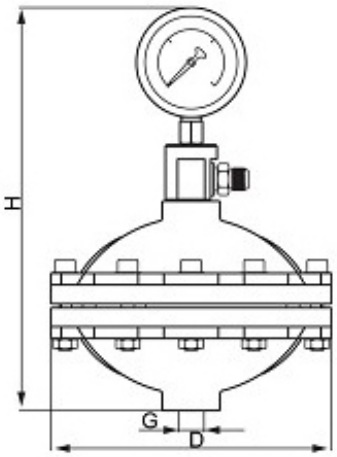
SERIES LGMZ

Pressure: 1.6 MPa

Material: UPVC, PP, PVDF, SS304, SS316

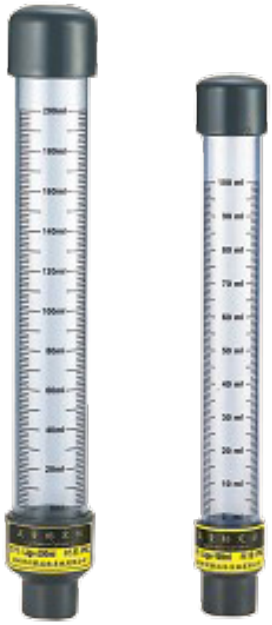
Connection: Inner thread

Sizing: LGMZ dampener minimum volume size shall be at least 15 times of each stroke power (ml).



Model	Volume (L)	H (mm)	D (mm)	Connection (F Thread)
LGMZ-0.35	0.35	215	ϕ142	G ½”
LGMZ-0.6	0.6	235	ϕ174	G ¾”
LGMZ-1.0	1.0	260	ϕ210	G 1”
LGMZ-1.5	1.5	308	ϕ230	G 1”
LGMZ-2.0	2.0	330	ϕ280	G 1 ¼”
LGMZ-4.0	4.0	370	ϕ306	G 1 ½” / 2”

CALIBRATION COLUMN



A calibration columns (also known as calibration cylinders) provide a simple method for determining pump flowrate using industry-standard graduations of milliliters/minute. All columns feature top-aligned graduated scales that allow the operator to survey in a single, one-minute test.

Material : UPVC or PVDF

Connection : Inner Thread (Standard connection)

*Other connection method is available upon request.

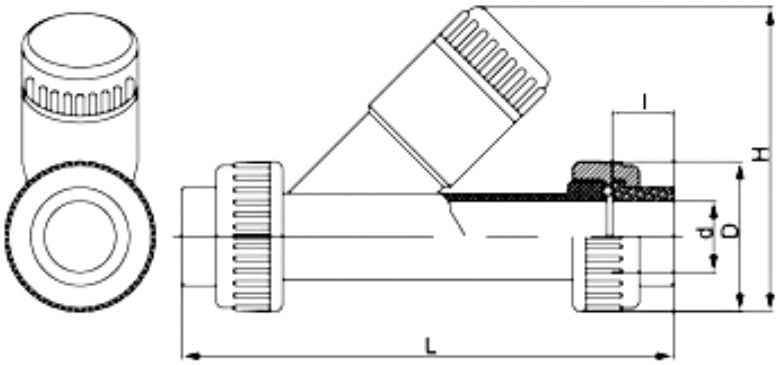
Sizing Example : For a dosing pump capacity at 60 L/H and measuring for 1 min. User may calculate as 60L/60 = 1L and select the 1L size calibration columns. If it is for 30 seconds, a 0.5L will be sufficient.

Model	Volume (ml)	Diameter (mm)	Height (mm)	Standard Connection
LGBD-100	100	32	280	Female Thread ½”
LGBD-200	200	40	320	Female Thread ½”
LGBD-300	300	50	320	Female Thread ½”
LGBD-400	400	50	400	Female Thread ½”
LGBD-500	500	63	350	Female Thread ½”
LGBD-1000	1000	63	455	Female Thread ½”
LGBD-2000	2000	75	805	Female Thread ¾”
LGBD-3000	3000	110	640	Female Thread 1”
LGBD-4000	4000	110	760	Female Thread 1”
LGBD-6000	6000	110	1000	Female Thread 1 ½”
LGBD-8000	8000	140	935	Female Thread 1 ½”
LGBD-10000	10000	140	1110	Female Thread 2”

*Custom size or custom connection is available upon request.

Y-STRAINER

WRS Y-strainers are specially designed for chemical dosing usage. It comes with various choice of materials for different applications. Standard material shall be UPVC. User may select optional material such as CPVC, PVDF or SS304 depending on their transfer liquid. Generally, it is installed in front of a metering pump or valve to filter out solids in the liquid. It may be a small little piece of accessory, but it helps tremendously on increasing the lifespan of a dosing pump or valves.



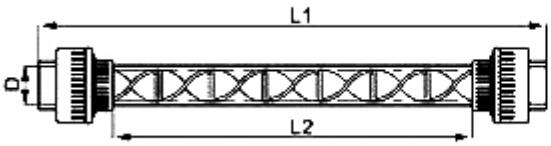
Model	Size	L	d	D	I	H
28615	DN15	190	20	52.6	22	106
28620	DN20	183	25	52.6	19	106
28625	DN25	199	32	60.8	21	124.4
28632	DN32	258	40	83.5	34	173
28640	DN40	258	50	83.5	31	173
28650	DN50	292.6	63	104	40	204
28665	DN65	420	75	122	41	251
28680	DN80	430	90	155	50	260

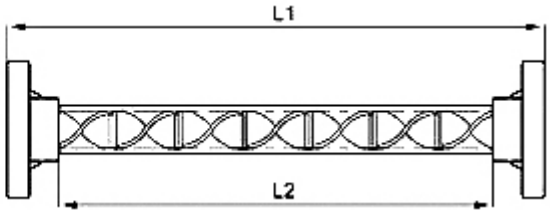
Materials: UPVC, CPVC, PVDF, SS304, SS316, PPH

Filter Size: 10 mesh, 20 mesh, 40 mesh

IN-LINE (STATIC) MIXER

A static mixer has no moving parts and works extremely well in creating emulsions," stable suspensions of one liquid in a second immiscible liquid. Static mixers create stable emulsions because they reduce the particles to a smaller size, so they stay together in a stronger bond for a longer period. In general, static mixers work by dividing streams of ingredients that need to be mixed. The ingredient stream typically is forced through the static mixer by a pump. The ingredients then are split into substreams as they are forced through the mixer. These substreams then are recombined and divided once again. This process might be repeated numerous times.

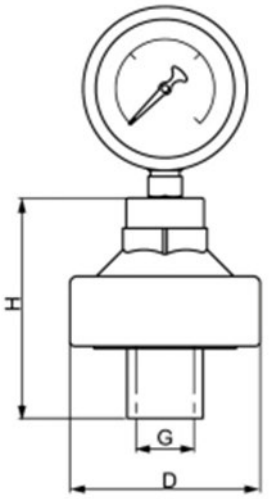




Model	DN	D (mm)	L1 (mm)	L2 (mm)	Flow (m3/h)	Standard Connection
SK68615	DN15 (1/2”)	20	252	156	0.4 ~ 1	Socket
SK68620	DN20 (3/4”)	25	330	225	0.6 ~ 1.8	
SK68625	DN25 (1”)	32	420	292	1 ~ 3.2	
SK68632	DN32 (1 ¼”)	40	495	336	1.4 ~ 6	
SK68640	DN40 (1 ½”)	50	565	406	2.2 ~ 10	
SK68650	DN50 (2”)	63	695	497	3.5 ~ 20	Flange
SK68665	DN65 (2 ½”)	75	900	642	10 ~ 60	
SK68680	DN80 (3”)	90	880	770	15 ~ 80	
SK686100	DN100 (4”)	110	990	850	30 ~ 120	
SK686150	DN150 (6”)	160	955	800	90 ~ 190	
SK686200	DN200 (8”)	225	1020	790	150 ~ 340	

*Other connection is customizable.

PRESSURE GAUGE



Instrument Outer Diameter	:	ϕ60MM / ϕ100MM
Measuring Range	:	0-1.6 MPa
Working Temperature	:	-20～70℃
Ingress Protection	:	IP54
Meter Fluid	:	Silicone Oil
Working pressure	:	static load: 3/4 of the upper limit of measurement
Alternating load	:	2/3 of the upper limit of measurement

Model	Body Material	Diaphragm Material	D (mm)	H (mm)	Connection
786-U	UPVC	FPM, PTFE	79	84	Socket: DN15, DN20, DN25 Inner Thread: G1/2”, G1/4”, G 3/8” Outer Thread: M20 x 1.5
786-P	PP	FPM, PTFE	79	84	Inner Thread: G1/2”, G1/4”, G 3/8” Outer Thread: M20 x 1.5
786-V	PVDF	PTFE	79	84	Inner Thread: G1/2”, G1/4”, G 3/8” Outer Thread: M20 x 1.5
786-S	SS304 / SS316	PTFE	74	77	Outer Thread: M20 x 1.5

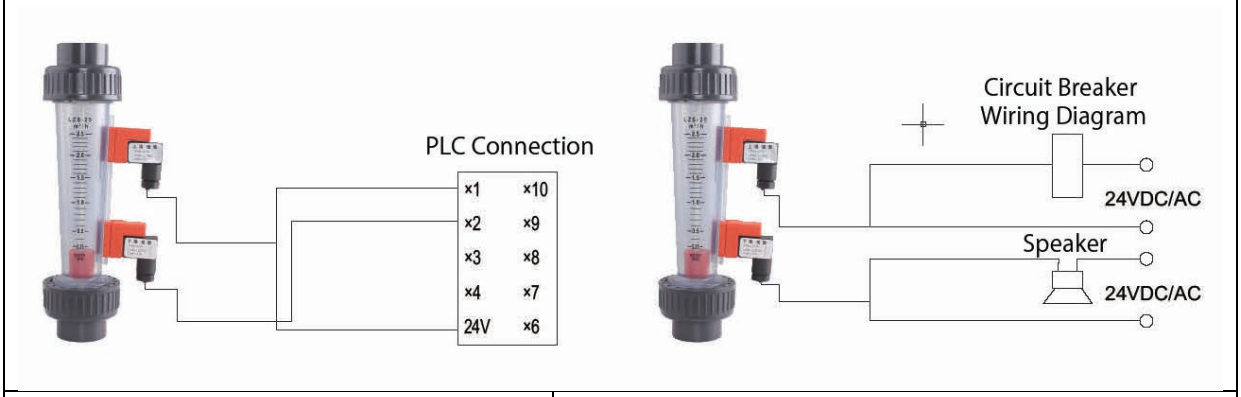
*Additional signal transmitter available.
*Flange connection available.

ROTAMETER (FLOAT-TYPE FLOW METER)

A rotameter is a device that measures the volumetric flowrate of fluid in a closed tube. A rotameter does not require external power or fuel, it uses only the inherent properties of the fluid, along with gravity to measure flowrate. It is simple to install, understand, cost effective and more importantly it is accurate. Since the area of the flow passage increases as the float moves up the tube, the scale is approximately linear. WRS Rotameter also has an option to install high/low flowrate signal, this gives our valued clients using our products more control on their systems.

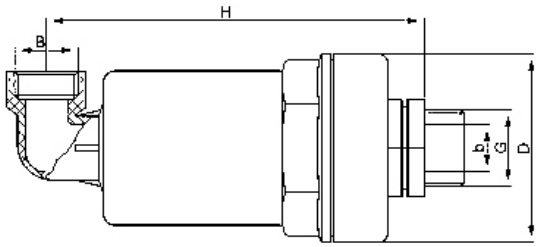
Model	Connection	Length (mm)	Range
LZS-15/20	DN15 / DN20	231	4-40L/h
			6-60L/h
			10-100L/h
			16-160L/h
			25-250L/h
			40-400L/h
			60-600L/h
			100-1000L/h
LZS-20/25	DN20 / 25	230	100-1000L/h
			160-1600L/h
			250-2500L/h
			300-3000L/h

LZS-25/32	DN25 / DN32	283	400-4000L/h
			600-6000L/h
LZS-40/50	DN40 / DN50	344	0.4-4m3/h
			0.6-6m3/h
			1-10m3/h
			1.6-16m3/h
LZS-65/50	DN50 / DN60	425	4-16m3/h
			5-25m3/h
			8-40m3/h
			12-60m3/h
LZS-80	Flange	565	4-16m3/h
			5-25m3/h
			8-40m3/h
			12-60m3/h
LZS-100	Flange	693	12-60m3/h
			18-90m3/h
			20-120m3/h
LZS-125	Flange	584	20-120m3/h
			25-150m3/h
			30-180m3/h
LZS-150	Flange	584	30-180m3/h

ROTAMETER SIGNAL TRANSMITER	
	
Model	LS650 - High Signal Transmitter LS651 – Low Signal Transmitter
Voltage	Max. 24VDC / 24VAC
Current	Max. 0.3 A
Constant Current (Switching)	Max. 0.1 A
Instantaneous power	Max. 1VA
Forward Resistance	< 200mΩ
Insulation Resistance	>10^9 Ω
Working Temperature	0 – 55 °C
IP Rating	IP65
Lag Distance	4mm
Dimension	42 x 23 x 45 mm

AIR RELIEF VALVE

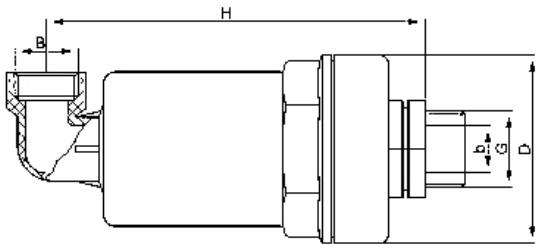
MODEL 386



Model	Size	H	B	G	d	D
38615	DN15	165	G ¾"	G ½"	12	80
38620	DN20	165	G ¾"	G ¾"	17	80
38625	DN25	165	G ¾"	G 1"	20	80
38632	DN32	165	G ¾"	G 1 ¼"	20	81
38640	DN40	168	G ¾"	G 1 ½"	40	81
38650	DN50	220	40	G 2"	45	100

*For 38625 (Size DN25) transparent housing available.

MODEL 486 (Vacuum Breaker)



Model	Size	H	B	G	d	D
48625	DN25	165	G ¾"	G 1"	20	80
48650	DN50	220	40	G 2"	45	100

ACTUATED VALVES

It is also known as automated valves. As the name itself, the valve is mechanically operated by electric or pneumatic. Comparing to a manual valve, it does not require user in attendance to make changes or control the valve. It can be control remotely, and this is crucial part of a process plant or systems.

WRS offer four types of actuated valves.

1. Electric powered butterfly valve
2. Pneumatic powered butterfly valve
3. Electric powered ball valve
4. Pneumatic powered ball valve

SERIES 987: ELECTRIC POWERED BUTTERFLY VALVE

Actuator Parameters		**Body Parameters**	
Power	AC110, 220/380V/DC24/220V	**Size**	DN50 – DN200
Output Force	50N, 100N, 200N	**Rated Pressure**	PN1.0MPa
Operating Range	0 ~ 90° ± 5°	**Material: Sleeve**	UPVC, CPVC, PP, ABS
Operating Time	15/30/60 seconds	**Material: Body**	UPVC, CPVC, PPH, PP< ABS
Environment Temperature Range	-30°C ~ 60°C	**Material: Seal**	EPDM, NBR, FPM, PTFE
Input Signal	On/Off Type: 0 – 10, 1-5VDC or Signal Type: 4-20mA	**Temperature Range**	UPVC < 65°C PVDPC < 140°C CPVC < 90°C PP < 85°C
Protection	IP67 **Optional: Exd + IP67*		
Manual Operation	Hand leaver	**Connection:**	Flange connection

SERIES 887: PNEUMATIC POWERED BUTTERFLY VALVE

Actuator Parameters		**Body Parameters**	
Type	Piston Type, Spring Type	**Size**	DN50 – DN300
Required Air Power (Double Acting)	2 - 8 Bar	**Rated Pressure**	PN1.0MPa
Required Air Power (Single Acting)	4 - 8Bar	**Material: Sleeve**	UPVC, CPVC, PP, PVDF, ABS
Output Force (Double Acting)	4N.M ~10560N.M	**Material: Body**	UPVC, CPVC, PP, PVDF, ABS
Output Force (Single Acting)	7N.M ~2668N.M	**Material: Valve Ball**	UPVC, CPVC, PP, PVDF, ABS
Operating Range	0 ~ 90° ± 5°	**Material: Seal**	EPDM, NBR, FPM, PTFE
Working Temperature	-20°C ~ 160°C *subject to O-Ring Selection	**Temperature Range**	UPVC < 65°C PVDPC < 140°C CPVC < 90°C PP < 80°C
Connection Method	GTD40~83 / ATD50~88 G 1/8” GTD110~350 / ATD100~200 G ¼”	**Connection:**	Flange connection
Signal	4-20mA, On/Off		

SERIES 986: ELECTRIC POWERED BALL VALVE

Actuator Parameters		**Body Parameters**	
Power	AC110, 220/380V/DC24/220V	**Size**	DN50 – DN100
Output Force	30N, 50N, 100N	**Rated Pressure**	PN1.0MPa
Operating Range	0 ~ 90° ± 5°	**Material: Sleeve**	UPVC, CPVC, PP, ABS
Operating Time	15/30/60 seconds	**Material: Body**	UPVC, CPVC, PPH, PP< ABS
Environment Temperature Range	-30°C ~ 60°C	**Material: Seal**	EPDM, NBR, FPM, PTFE
Input Signal	On/Off Type: 0 – 10, 1-5VDC or Signal Type: 4-20mA	**Temperature Range**	UPVC < 65°C PVDPC < 140°C CPVC < 90°C PP < 85°C
Protection	IP67 **Optional: Exd + IP67*	**Connection:**	Flange connection, Clamp, Glue Socket
Manual Operation	Hand leaver		

SERIES 886: PNEUMATIC POWERED BALL VALVE

Actuator Parameters		**Body Parameters**	
Type	Piston Type, Spring Type	**Size**	DN15 – DN100
Required Air Power (Double Acting)	2 - 8 Bar	**Rated Pressure**	PN1.0MPa
Required Air Power (Single Acting)	4 - 8Bar	**Material: Sleeve**	UPVC, CPVC, PP, PVDF, ABS
Output Force (Double Acting)	4N.M ~10560N.M	**Material: Body**	UPVC, CPVC, PP, PVDF, ABS
Output Force (Single Acting)	7N.M ~2668N.M	**Material: Valve Ball**	UPVC, CPVC, PP, PVDF, ABS
Operating Range	0 ~ 90° ± 5°	**Material: Seal**	EPDM, NBR, FPM, PTFE
Working Temperature	-20°C ~ 160°C *subject to O-Ring Selection	**Temperature Range**	UPVC < 65°C PVDPC < 140°C CPVC < 90°C PP < 80°C
Connection Method	GTD40~83 / ATD50~88 G 1/8” GTD110~350 / ATD100~200 G ¼”	**Connection:**	Flange connection, Clamp, Glue Socket

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