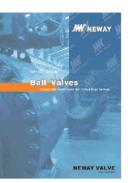


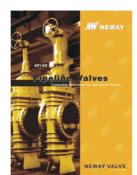
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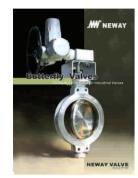
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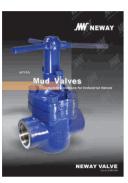
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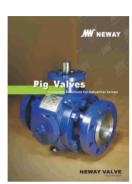
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Cat.no.:E-BFV



Cat.no.:E-MV



Cat.no.:E-PV



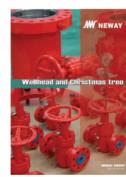
Cat.no.:E-AV



Cat.no.:6AGV



Cat.no.:E-HPCV



Cat.no.:E-WE



Cat.no.:E-CSC



No.666 Taishan Road, Suzhou New District,P.R. China Post Code:215129 Tel: 86-512-666-51365 Fax: 86-512-666-51360 E-Mail: neway@neway.com.cn http://www.newayvalve.com Distributed by:





# **Quality Commitment**

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- 2~3 How to Order

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## **Complete Solutions for Engineered Valves**

Being one of the leading valve manufacturer in the world, Neway specializes exclusively in the development of innovative designs, through intensive R&D programs and engineering excellence. We engineer and manufacture valve solutions for all industries.

Neway's main product lines include Gate, Globe, Check, Butterfly and Ball valves. Our production facilities and quality system have been inspected and approved by many global end users and EPC firms. Our products have been installed around the world, handling a wide variety of applications in the Gas, Oil, Refining, Chemical, Marine, Power Generation and Pipeline Transmission Industries.

## **Neway Facilities**

Neway's management groups are structured based on operating several plants. Neway valves are manufactured in 6 specialized manufacturing facilities, 4 plants in China, one in Mexico and the other in Saudi Arabia. They are all supported by two Neway owned specialized foundries.

Our intranet includes over 400 computers using the most advanced R&D software including CAD, I-Deas, Pro-E, a number of CNC & machine centers, in addition we utilize a bar code inventory management systems. We are one of the few valve manufacturers performing Enterprise Resource Planning (ERP), in-house fire safe and cryogenic testing, high pressure gas and low fugitive emission testing.

#### **Quality Assurance**

Neway's quality assurance is dedicated to the pursuit of zero defect valve supply to our customers. We have implemented a six sigma management process in order to continually improve our processes and management controls through the use of advanced statistical data analysis. Neway holds most of the industrial valve manufacturing certificates, such as ISO 9001, CE/PED, TA-Luft, API 6A, API 6D, ABS, and API 607 Fire Safe certificate.

ISO 9001



eway recognizes the importance of valve quality for the safety and protection of personnel health and property. It is our quality commitment to focus our resources to provide our customer's with first class products at a competitive price, that are designed, manufactured, inspected and tested in accordance with our customer's specifications and that comply with all international standards.

With respect to the facts that the current industrial standards do not always take into consideration the likelihood and consequences of possible deterioration in service, related to specific service fluids or the external environment in which they operate. Our customers are requested to keep an open line of communication with our engineering department to identify and implement standards, that will provide valves with the possibility of deterioration in service, so as to ensure safety over the valves expected lifetime.

Fire Safe Test

## How to order

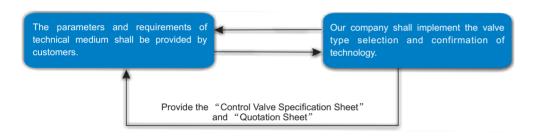
#### Confirmation of technical parameters

The global control valves (straight-through type)of our company include three types: CSS single-seated control valves, CSC cage-guided control valves, CSM multi-stage pressure reducing control valves, which may be selected for use by users according to the actual demand. This stylebook intends to introduce the CSS single-seated control valves.



Confirmation of technology shall be carried out before ordering, with the purpose to ensure that the control valves provided by our company are in full appliance with the requirements of customers.

The specific procedure: The parameters and requirements of technical medium provided by customers, after the valve type selection and calculation for confirmation, shall be worked to "Control Valve Specification Sheet" which shall be provided to the customers for confirmation, then continue the quotation and the next business processes.



#### The parameters and requirements of technical medium provided by customers are as follows:

- 1) Fluid Name, Fluid state
- 2) Inlet Pressure, Outlet pressure
- 3) Normal flow, Minimum flow, Maximum flow
- 4) Fluid operating temperature, density and viscosity
- 5) Pipeline specification, material, installation direction (Horizontal or vertical)
- 6) Confirm the driving means of valve: electric drive or pneumatic drive, or other means 12) Confirm the protection or explosion-proof grade
- 7) Confirm that the control valve is used for regulation or on-off and shutting off.
- 8) Confirm the requirements of the flow characteristics of valves (With the exception of the valves for on-off use)
- 9) Confirm the mode of action of the valve
- 10) Confirm whether the valve is equipped with hand-operating mechanism
- 11) Confirm the leakage rating at the closure of the valve
- 13) Special specifications or requirements

#### The special specifications or requirements are as follows:

- 1) Oil prohibition treatment of valve body
- 2) Specifications of the vapor jacket of valve body
- 3) Valve stem bellow seal
- 4) Radioactive survey of valve body
- 5) Flow characteristic inspection of valve body
- 6) Low-temperature test of valve body
- 7) Ambient temperature ≤-30°C
- 8) Ambient temperature ≥60°C
- 9) Treatment for strongly corrosive environment

- 10) Special requirements of on-off switching speed
- 11) Copper prohibition treatment
- 12) Designated coating
- 13) Other special requirements

#### Pattern of specification

	Control Valve Specification Sheet														
	Cus	stomer									Name of Valve				
		Plant									Code No.				
	Т	ag.no.									Quotation No.				
	Pι	urpose									DWG. No.				
	Qı	uantity								1	Manufacturing Sn.				
		Code									Valve Body				
		Size									Valve Plug				
<b>&lt;</b>		Rating									Valve Seat				
alve	Conn	nection									Guide Sleeve				
Valve Body	Trim	Form									Gland Packing				
~	Cha	aracter													
	Во	onnnet													
	Rat	ted Cv		Tra	vel			mm							
		Code									Supply				
Ac	Output	Force									Connection				
Actuator		n Type													
9	Spring	Range													
	Hand	dwheel													
		Name	Mode And	d Specif	ication		Conr	nection		N	lame	Mode And Specification	าร	Connection	
	Electro-pnei								П						
Þ	Filter Reducing														
Accessories	Solenoid														
sori		Switch							П						
S	Speed-up														
	Lockup														
		Signal									Leakage class				
		Supply									Action speed				
Acti		Action								Mounting means					
Action • capability		Failure								Ambient temperature					
cap		Dil-free								Line direction					
abiii		ainting								Dimension of	of connection tube				
4		Other									of connection tube				
			Uni	:4	Mi	nimum		Normal		Maximum	Name of Fluid				
	Flov	w Rate	Kg	_	IVII	illinuini		INOIIIIai		Maximum	State				
S <sub>e</sub>	Inlet Pre		kPa								Remark				
rvice	Outlet Pre		kPa								Remark				
00	Shutoff Pre		kPa												
diti	Operating Tempe		℃												
Service Condition • calculation		scosity		• \$											
calc		Density	Kg												
iulat		Cal.cv	Ng.	/111											
on On		pening	%												
		Noise	dB <sub>i</sub>	A											
	0 ""		uD.												
	Compiling											AAAT			
	Confirming											7444	N	<b>EWAY</b>	
	Approving														

#### Design Feature of CSS Single-seated Control Valve

CSS control valve is a single seat and high-precision valve with the following design features:

- Use S-shape interval channel with constant section, the slight flow resistance and strong flow capacity.
- The one-piece structure shall be applied to the small-size valve plug and stem to avoid the problems brought by pins or wilding.
- Adopt top-guided structure which is compact with smooth flow and not easy to be blocked.
- With wide adjustable range and high adjusting precision
- Pneumatic actuator is a multi-spring diaphragm type with compact structure and strong output force.
- Electric actuator is an electronic electric actuating mechanism with one-piece structure and powerful functions.
- Apply to control various fluid mediums.



#### Design Reference Standard of The CSS Single-seated Control Valve

- ASME B16.34-1996 Valves-Flanged, Threaded, and Welding End.
- ASME B16.104 Seat Leakage of Control Valves
- IEC 60534-2-4-1989 Part 2 Flow Rate-Section 4: Inherent Flow Characteristics and Rangeability.
- IEC 60534-3-1976 Part 3 Dimension-Section 1: Structure Length of Flanged Connecting Two-way Global Control Valves
- GB/T4213-92 Pneumatic control valves
- JB/T 5296-91 General Test Methods of Flow Coefficient and Flow Resistance Coefficient of Valves
- API 598-1996 Inspection and Tests of Valves (Domestic Standard Reference GB/T 13927-1992 )
- ISO 5208-2004 Pressure test of Industrial Valves (Domestic Standard Reference JB/T 9092-1999)



## Main Performance Index Of The CSS Single-seated Control Valve

- Intrinsic error:  $\pm 2\%$  (with localizer) ; $\pm 5\%$  (without localizer)
  - ±1% (electronic actuator)
- Hysteresis error: 1% (with localizer); 3% (without localizer)
  - $\pm 0.8\%$  (electronic actuating mechanism)
- Hysteresis: 1% (with localizer) ; 5% (without localizer)
  - 1% (electronic actuating mechanism)
- Rangeability: R=50
- Leakage class: ANSICLASS IV (rated Cv×0.01%)
  - ANSICLASS V 、VI (hard sealing, optional)
  - ANSICLASS VI (soft sealing)
- Flow characteristics: equal percentageage, linearity and quick-opening
- For the details of rated Cv value and allowable pressure drop, please see the content later.



## Manufacturing Scope Of CSS Single-seated Control Valves

	Range Of Size											
British unit	ln	1/2	3/4	1	11/2	2	21/2	3	4	5	6	8
Metric unit	mm	15	20	25	40	50	65	80	100	125	150	200

Pressure Rating										
ANSI CLASS	150 Lb	300 Lb	600 Lb							
HG20592~20635-97	1.6 MPa ´ 2.0 MPa	4.0MPa ´ 5.0 MPa	6.3 MPa ´ 10 MPa ´ 11 MPa							
GB/T9112~9124	1.6 MPa ´ 2.0 MPa	4.0MPa ´ 5.0 MPa	6.3 MPa ´ 10 MPa ´ 11 MPa							
JIS	10K	20K ′ 30K	40K							

Applicable Temperature Range										
Temperature range	-5\(\times 230\(\times \)	-45♡ ~ -5♡ or >230♡	-46° ~ -100°	-100p ~ -196p						
Bonnet type	Standard type	Extension type	Long type	low temperature type						

Notice: When the temperature of fluid medium is below -45 °C, it should confirm the length of bonnet and the connection dimension between the bonnet and thermal container with customers.

#### **Connection Mode**

Connection Mode	Sealing Face Type	Abbreviated Code Of Sealing Face	Code Of Neway
	Flat face end	FF	F
	Raised face end	RF	R
Flange end	Female flanged end	MF	LF-
	Male flange end	MM	LM
	RTJ end	RTJ	J
	Butt welding end (more than 3")	BW	В
Welded end	Socket welding end (equal to or less than 2")	SW	S

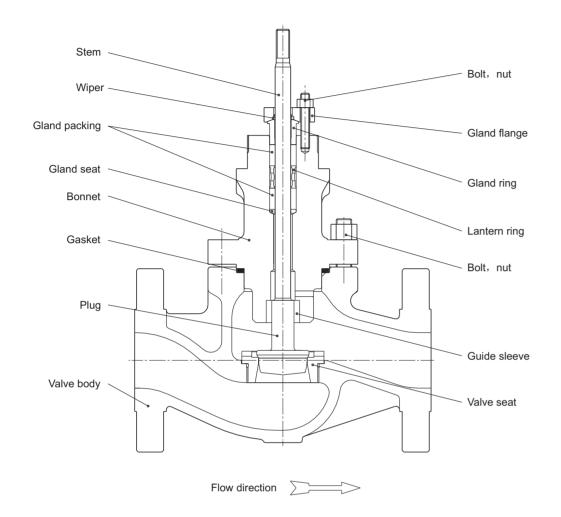
#### Coating

Standard painting color of carbon-steel valve: RAL9006 silvery white

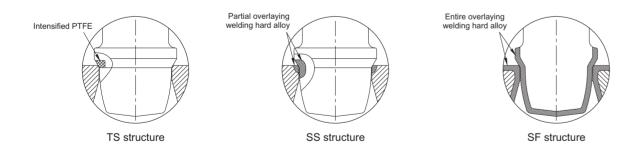
The stainless steel valve body part shall not be painted.

The original color of electric actuator shall be kept, unless there are special requirments.

With the special requirements, customers may designate the type and color of the paint.



#### **Structure of Sealing Part**



As in the above figure,

In the TS structure, the intensified PTFE is embedded in the sealing part of the valve plug.

In the SS structure, the STELLITE hard alloy is overlaying welded in the sealing part of valve plug and valve seat (Partial overlaying welding).

In the SF structure, the STELLITE hard alloy is overlaying welded in the entire surface of the valve plug and valve seat (Entire overlaying welding).

#### Rated Cv Value, Travel (Adjusting Type of Valve Plug)

Nominal	Pipe Size	Valve Plug	Dimension	Rated Cv	Travel
mm	in	mm	in		mm
		6	1/8	0.3	12
		7	3/16	0.5	12
15	1/2	8	1/4	1.0	12
13	1/2	9	5/16	1.6	20
		10	3/8	2.6	20
		15	1/2	4	20
		6	1/8	0.3	12
		7	3/16	0.5	12
		8	1/4	1.0	12
20	3/4	9	5/16	1.6	20
		10	3/8	2.6	20
		15	1/2	4	20
		20	3/4	8	20
		6	1/8	0.3	12
		7	3/16	0.5	12
		8	1/4	1.0	12
25	1	9	5/16	1.6	20
25	1	10	3/8	2.6	20
		15	1/2	4	20
		20	3/4	8	20
		25	1	14	20
		25	1	14	20
40	1-1/2	32	1-1/4	22	20
		40	1-1/2	26	20

Nominal	Pipe Size	Valve Plug	Dimension	Rated Cv	Travel
mm	in	mm	in		mm
		32	1-1/4	22	20
50	2	40	1-1/2	26	20
		50	2	46	20
		40	1-1/2	26	30
65	2-1/2	50	2	46	30
		65	2-1/2	74	30
		50	2	46	30
80	3	65	2-1/2	74	30
		80	3	108	30
		65	2-1/2	74	40
100	4	80	3	108	40
		100	4	180	40
		80	3	108	50
125	5	100	4	180	50
		125	5	280	50
		100	4	180	50
150	6	125	5	280	50
		150	6	380	50
		125	5	280	70
200	8	150	6	380	70
		200	8	660	70

## Rated Cv Value, Travel (on/off Type of Valve Plug)

Nominal	Nominal Pipe Size		Dimension	Rated Cv	Travel
mm	in	mm	in		mm
15	1/2	15	1/2	4	20
20	3/4	20	3/4	10	20
25	1	25	1	16	20
40	1-1/2	40	1-1/2	36	20
50	2	50	2	60	20
65	2-1/2	65	2-1/2	100	20

Nominal	Pipe Size	Valve Plug	Dimension	Rated Cv	Travel
mm	in	mm	in		mm
80	3	80	3	140	20
100	4	100	4	220	30
125	5	125	5	340	40
150	6	150	6	460	40
200	8	200	8	720	60

## Standard Product Material Combination (valve Body To Be Carbon-steel Wcb, Wc6, Lcb)

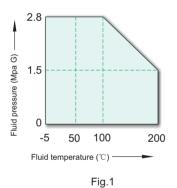
Material of valve body		WCB、WC6			LCB		
Material and treatment of valve plug	316SS/TS	316SS	316SS/SS	316SS/SF	316SS/TS	316SS	
Material and treatment of valve seat	316SS	316SS	316SS/SS	316SS/SF	316SS	316SS	
Material and treatment of guide sleeve	316SS/SS	316SS/SS	316SS/SS	316SS/SS	316SS/SS	316SS/SS	
Range of working temperature	-5℃~+200℃	-5₽~+230₽	-5℃~+425℃	-5℃~+425℃	-45℃~+200℃	-45℃~+230℃	
Allowable leakage rate of valve seat	CLASS VI	CLASS IV	CLASS IV	CLASS IV	CLASS VI	CLASS IV	
Figure of temperature pressure	See fig.1	See fig.2	See f	ig.3	See fig.4	See fig.5	

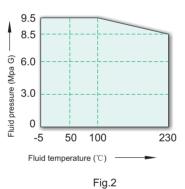
Note: The material grades listed in the above table are ASTM standard, for material of national standard and other standard, just adopt it.

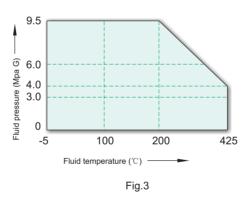
Using temperature and pressure of any material are not allowed to exceed the pressure- temperature rating defined in ASME B16.34;

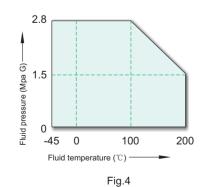
TS in the table indicate the configuration of embedding intensified PTFE; SS in the table expresses the configuration of partial overlaying welding hard alloy; SF in the table expresses the configuration of entire overlaying welding hard alloy.

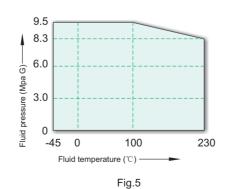
If needing material unlisted in the table, please affirm it with the company's sales department.











## Standard Product Material Combination (Valve Body To Be Stainless Steel Cf8/cf8m)

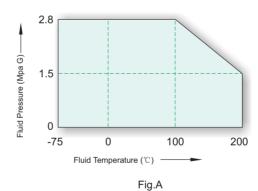
Material of valve body		CF8 ′	CF8M	
Material and treatment of valve plug	316SS/TS	316SS	316SS/SS	316SS/SF
Material and treatment of valve seat	316SS	316SS	316SS/SS	316SS/SF
Material and treatment of guide sleeve	316SS/SS	316SS/SS	316SS/SS	316SS/SS
Range of working temperature	-75₽~+200₽	-196p~+230p	-196p~+538p	-196p~+538p
Allowable leakage rate of valve seat	CLASS VI	CLASS IV	CLASS IV	CLASS IV
Figure of temperature pressure	See fig.A	See fig.B	See	fig.C

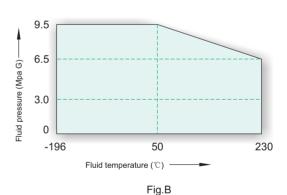
Note: The material grades listed in the above table are ASTM standard, for material of national standard and other standard, just adopt it.

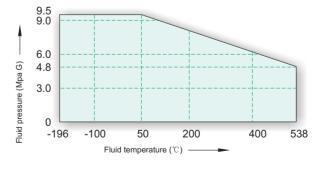
Using temperature and pressure of any material are not allowed to exceed the pressure- temperature rating defined in ASME B16.34;

TS in the table indicate the configuration of embedding intensified PTFE; SS in the table expresses the configuration of partial overlaying welding hard alloy; SF in the table expresses the configuration of entire overlaying welding hard alloy.

If needing material unlisted in the table, please affirm it with the company's sales department.







## Applicable pressure-temperature range of valve body ---ASME B16.34---2004

Unit: Mpa

			A	ANSI 300Lb							
္စ	LCB	WCB	WC6	WC9	<b>C</b> 5	CF8	CF8M	LCB	WCB	WC6	WC9
		A105	F11	F22	F5	F304	F316		A105	F11	F22
-196~38						1.90	1.90				
-45~38						1.90	1.90	4.78			
-29~38	1.84	1.96	1.98	1.98	2.00	1.90	1.90	4.80	5.11	5.17	5.17
50	1.82	1.92	1.95	1.95	1.95	1.83	1.84	4.75	5.01	5.17	5.17
100	1.74	1.77	1.77	1.77	1.77	1.57	1.62	4.53	4.66	5.15	5.15
150	1.58	1.58	1.58	1.58	1.58	1.42	1.48	4.39	4.51	4.97	5.03
200	1.38	1.38	1.38	1.38	1.38	1.32	1.37	4.25	4.38	4.80	4.86
250	1.21	1.21	1.21	1.21	1.21	1.21	1.21	4.08	4.19	4.63	4.63
300	1.02	1.02	1.02	1.02	1.02	1.02	1.02	3.87	3.98	4.29	4.29
325	0.93	0.93	0.93	0.93	0.93	0.93	0.93	3.76	3.87	4.14	4.14
350	0.84	0.84	0.84	0.84	0.84	0.84	0.84	3.64	3.76	4.03	4.03
375		0.74	0.74	0.74	0.74	0.74	0.74		3.64	3.89	3.89
400		0.65	0.65	0.65	0.65	0.65	0.65		3.47	3.65	3.65
425		0.55	0.55	0.55	0.55	0.55	0.55		2.88	3.52	3.52
450		0.46	0.46	0.46	0.46	0.46	0.46		2.30	3.37	3.37
475		0.37	0.37	0.37	0.37	0.37	0.37		1.74	3.17	3.17
500		0.28	0.28	0.28	0.28	0.28	0.28		1.18	2.57	2.82
538		0.14	0.14	0.14	0.14	0.14	0.14		0.59	1.49	1.84

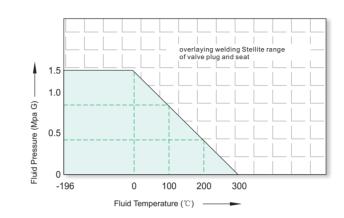
	, ,	ANSI 300L	b				ANSI	600Lb			
ပ္စ	C5	CF8	CF8M	LCB	WCB	WC6	WC9	C5	CF8	CF8M	
	F5	F304	F316		A105	F11	F22	F5	F304	F316	
-196~38		4.95	4.95						9.91	9.92	
-45~38		4.95	4.95	9.57					9.91	9.92	
-29~38	5.17	4.96	4.96	9.60	10.21	10.34	10.34	10.34	9.93	9.93	
50	5.17	4.78	4.81	9.49	10.02	10.34	10.34	10.34	9.56	9.62	
100	5.15	4.09	4.22	9.07	9.32	10.30	10.30	10.30	8.17	8.44	
150	5.03	3.70	3.85	8.79	9.02	9.95	10.03	10.03	7.40	7.70	
200	4.86	3.45	3.57	8.51	8.76	9.59	9.72	9.72	6.90	7.13	
250	4.63	3.25	3.34	8.16	8.39	9.27	9.27	9.27	6.50	6.68	
300	4.29	3.09	3.16	7.74	7.96	8.57	8.57	8.57	6.18	6.32	
325	4.14	3.02	3.09	7.52	7.74	8.26	8.26	8.26	6.04	6.18	
350	4.03	2.96	3.03	7.28	7.51	8.04	8.04	8.04	5.93	6.07	
375	3.89	2.90	2.99		7.27	7.76	7.76	7.76	5.81	5.98	
400	3.65	2.84	2.94		6.94	7.33	7.33	7.33	5.69	5.89	
425	3.52	2.80	2.91		5.75	7.00	7.00	7.00	5.60	5.83	
450	3.37	2.74	2.88		4.60	6.77	6.77	6.77	5.48	5.77	
475	2.79	2.69	2.87		3.49	6.34	6.34	5.57	5.39	5.73	
500	2.14	2.65	2.82		2.35	5.15	5.65	4.28	5.30	5.65	
538	1.37	2.44	2.52		1.18	2.98	3.69	2.74	4.89	5.00	

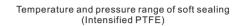
Note: (1) Upon prolonged exposure to temperatures above 425°C, the carbide phase of WCB steel may be converted to graphite.

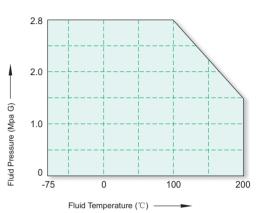
(2) Flanged end valve ratings terminate at 538°C

## Working pressure-temperature of sealing part material

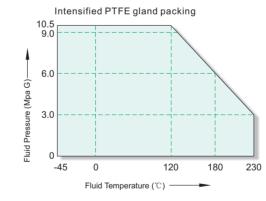
Pressure-temperature range of metal sealing

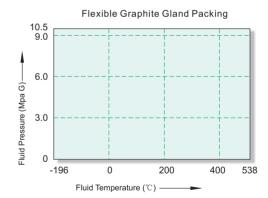






## Working temperature and pressure range of gland packing





## Standard specification of electric actuator

Purpose	Drive actuator of straightaway type adjusti	ing valve, on-off valve
Mode	PSL series	361LA series
Structural features	Full electronic one-piece, built-in servoamp	Full electronic one-piece, built-in servoamp
Voltage	230VAC	220VAC
Repeated precision	±1%	± 1%
Lag	2%Sensitivity	0.8~1.0%
Protecting Level	IP 65	lp55
Manual operation	With top type hand wheel	With side type or top type lever
Allowable environmental temperature	-20℃ ~ 70℃	-10℃ ~ 60℃
Optional accessories	Limit switch, torque switch, heating resistance, I ocal control box, and special voltage	Overload protective device, built-in heater, pressure-resistant and exploration proof

Note: technical performance of electric actuator is based on product leaving factory, data on the above table for you reference

## PSL standard specification of straightway type electric actuator

Standard mode	Thrust Force [KN]	Speed [mm/s]	The Most Travel [mm]	Power [VAC]	Power Cons Umption [VA]	Electromotor Protection	Circuit Connection	Protecting Grade	Weight [Kg]
PSL201MA	1.0	0.25	50	230	25.5	Allow locked rotor		IP65	4.25
PSL202MA	2.0	0.50	50	230	37	Allow locked rotor		IP65	4.50
PSL204.1MA	4.5	1.00	50	230	44	Thermoswitch	2-M20 × 1.5	IP65	5.00
PSL208.1MA	8.0	1.00	50	230	74.2	Thermoswitch		IP65	7.00
PSL210MA	10.0	0.45	50	230	72	Thermoswitch		IP65	7.00
PSL312MA	12.0	0.60	65	230	88	Thermoswitch		IP65	10.00
PSL314MA	14.0	0.35	65	230	77	Thermoswitch	3-M20 × 1.5	IP65	10.00
PSL320MA	20.0	1.00	100	230	100	Thermoswitch		IP65	20.00
PSL325MA	25.0	1.00	100	230	100	Thermoswitch		IP65	20.00

## 361L standard specification of straightway type electric actuator

Standard mode	Thrust Force [KN]	Speed [mm/s]	The Most Travel [mm]	Power [VAC]	Power Cons Umption [VA]	Electromotor Protection	Circuit Connection	Protecting Grade	Weight [Kg]
361LSA-08	8.0	4.2	30	220	45	Overheating protection		IP55	8.0
361LSA-20	2.0	2.1	30	220	50	Overheating protection		IP55	8.0
361LSB-30	3.0	3.5	60	220	150	Overheating protection		IP55	14.0
361LSB-50	5.0	1.7	60	220	150	Overheating protection	2-PF1/2	IP55	14.0
361LSC-65	6.5	2.8	100	220	170	Overheating protection		IP55	52.0
361LSC-99	10.0	2.0	100	220	170	Overheating protection		IP55	52.0
361LSC-160	16.0	1.0	100	220	370	Overheating protection		IP55	58.0

## Standard specification of pneumatic diaphragm actuator

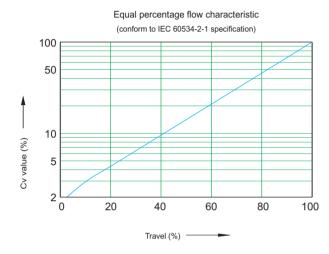
Purpose	Drive actuator of straightaway type adjusting valve, on-off valve
Mode	PDL30、PDL40、PDL50、PDL50L、PDL60
Structural features	Pneumatic diaphragm, single action and multi-spring structure
Action type	Direct action (D), reverse action (R)
Supply pressure	0.14 MPa G、0.3 MPa G
Air supply connection	RC1/4(RC3/8 for PDL60)
Action	Direct action type: when air signal increase valve close; reverse action type:when air signal increase valve open.
Basic error	$\pm 2\%$ (with positioner); $\pm 5\%$ (without positioner)
Lag	1% (with positioner); 5% (without positioner)
Return difference	1% (with positioner); 3% (without positioner)
Linear	$\pm 1\%$ (with positioner); $\pm 5\%$ (without positioner)
Allowable environmental temperature	-30°C∼70°C
Matching accessories	Electro-pneumatic positioner, air-air positioner, air filtration reducing valve, solenoid valve, limit switch, lockup valve, etc.

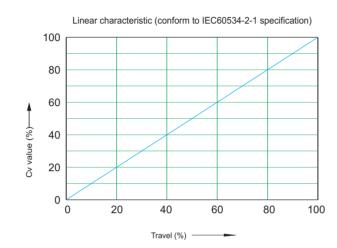
## Actuator travel, spring range, output force

Mode	PD	L30	PDL40		PD	L50	PDL	.50L	PD	L60
Travel mm	12 ′ 20 ′ 25		20 ′ 25 ′ 30 ′ 40		30 ′ 40	50 ′ 60	70	80	50 ′ 60 ′ 70 ′	80 ′ 90 ′ 100
Spring range Kpa	20~100 80~200		20~100	0~100 80~200		80~200	20~100	80~200	20~100	80~200
Output force N	600	600 2430		1080 4310		1860 7450		1860 7450		12500

Note: the above date are norm of specification, special travel or output force can be made according to the customers requirements

The inherent flow characteristics of CSS single-seated adjusting valve provide equal percentageage flow characteristic, linear characteristic, and quick opening characteristic and so on for choosing. Equal percentage flow characteristic, linear characteristic conform to the IEC60534-2-1 specification.





The flow characteristic of adjusting valve is divided into inherent flow characteristic and installed flow characteristic, inherent flow characteristic was also named ideal flow characteristic, referring to the characteristic of flow varying along with opening with a constant pressure drop in the inlet and outlet region.

The common flow characteristics are: equal percentage flow characteristic (also named logarithmic characteristic), Linearity (also named linear characteristic) and quick opening characteristic. When adjusting valve of linear characteristic is in small opening, the relative varying value of flow is large, and sensitivity is high, but it is difficult to control, however, when in large opening, the relative varying value of flow is small. When adjusting valve of equal percentage flow characteristic is in small opening, the relative varying value of flow is small, adjusting stability and mild, while in large opening, the relative varying value of flow is large.

Equal percentage flow characteristic is the direct ratio relationship between the relative varying value of flow across the valve, caused by the relative varying of displacement while valve opening and the relative flow in the same spot.

$$\frac{d(\frac{q_{v}}{q_{vmax}})}{d(\frac{\ell}{I})} = K \frac{q_{v}}{q_{vmax}} \text{ via integral transform, getting the formula: } \frac{C_{v}}{C_{vMAX}} = R^{(\frac{\ell}{L}-1)}$$

$$\frac{C_{_{V}}}{C_{_{VMAX}}}$$
 refer to relative flow characteristic;  $\frac{\ell}{L}$  Refer to relative displacement;  $R$  is adjustable ratio.

Linear flow characteristic is the linear relationship between the relative flow and relative displacement.

$$\frac{d(\frac{q_{v}}{q_{v_{max}}})}{d(\frac{\ell}{I})} = K \quad \text{via integral transform, getting the formula:} \quad \frac{C_{v}}{C_{v_{MAX}}} = \frac{1}{R} + (1 - \frac{1}{R}) \times \frac{\ell}{L}$$

## PDL pneumatic diaphragm actuator

Gland packing: V-type PTFE

Unit: Mpa

Specification	Spring range	Sealing					Speci	ficatio	n of va	lve plu	ıg(mm	)			
of the actuator	Kpa G	type of valve seat	₩10	15	20	25	32	40	50	65	80	100	125	150	200
	00.400	Adjust	2.28	1.18	0.87	0.64	0.41	0.27	0.17						
PDL30	20~100	Cut off			0.72	0.50	0.32	0.20	0.11						
PDL30	80~200	Adjust	9.50	6.35	4.80	3.52	2.35	1.68	1.05						
	60~200	Cut off			4.25	3.10	2.02	1.50	0.93						
	20~100	Adjust	4.60	2.50	1.82	1.35	0.86	0.63	0.37	0.25	0.17	0.09			
PDL40	20~100	Cut off			1.55	1.13	0.72	0.52	0.30	0.20	0.14	0.06			
FDL40	80~200	Adjust		9.50	9.00	6.45	4.32	3.10	1.90	1.30	0.93	0.52			
	00 200	Cut off			7.85	5.72	3.90	2.80	1.80	1.20	0.84	0.50			
	20~100	Adjust				2.55	1.65	1.17	0.73	0.48	0.33	0.19	0.12	0.08	0.02
PDL50	20*100	Cut off				2.25	1.50	1.05	0.68	0.43	0.30	0.17	0.10	0.06	0.01
FDL30	80~200	Adjust				9.50	7.50	5.52	3.48	2.33	1.66	0.95	0.63	0.43	0.23
	00 200	Cut off				9.40	6.60	5.00	3.20	2.15	1.54	0.90	0.58	0.41	0.20
	20~100	Adjust											0.30	0.20	
PDL60	20 100	Cut off											0.24	0.16	
I DLOO	80~200	Adjust											1.00	0.80	0.50
	00 200	Cut off											0.95	0.70	0.30

Note: When the range of spring is from 20 to 100kPa, air supply pressure is 140kPa G; when the range of spring is from 80 to 200KPa, air supply pressure is 300kPa G.

## PDL pneumatic diaphragm actuator

Gland packing: flexible graphite

Unit: Mpa

Specification of the	Spring range	Sealing					Speci	ficatio	n of va	lve plu	g(mm)	)			
actuator	Kpa G	type of valve seat	₩10	15	20	25	32	40	50	65	80	100	125	150	200
	00.400	Adjust													
PDL30	20~100	Cut off													
PDL30	80~200	Adjust	8.10	4.28	3.22	2.33	1.55	1.10	0.70						
	80~200	Cut off			2.80	2.03	1.34	0.95	0.60						
	20~100	Adjust	0.84	0.42	0.30	0.21	0.13	0.08	0.04	0.02	0.01				
PDL40	20~100	Cut off			0.19	0.11	0.05	0.01							
FDL40	80~200	Adjust	9.50	9.50	7.30	5.26	3.56	2.54	1.60	1.06	0.74	0.44			
	60~200	Cut off			6.40	4.68	3.20	2.28	1.45	0.97	0.70	0.38			
	20~100	Adjust				1.10	0.72	0.52	0.31	0.20	0.14	0.07	0.04	0.02	
PDL50	20~100	Cut off				0.90	0.60	0.42	0.24	0.15	0.10	0.04	0.02	0.01	
FDL30	80~200	Adjust				9.20	6.60	4.74	3.00	2.02	1.44	0.76	0.54	038	0.16
	6U~2UU	Cut off				8.60	6.05	4.35	2.80	1.95	1.33	0.78	0.50	0.35	0.14
	20~100	Adjust											0.15	0.11	
PDL60	20~100	Cut off											0.12	0.08	
FDLOU	80~200	Adjust											0.90	0.70	0.30
	00~200	Cut off											0.85	0.65	0.28

Note: when the spring ranges from 20 to 100kPa, air supply pressure is 140kPa G; when the spring ranges from 80 to 200kPa, air supply pressure is 300kPa G.

#### 361L electronic actuator

Gland packing: V-typePTFE

		ba

Specification of The	Output Force	Sealing Type of Valve					Specif	ficatio	n of Va	lve Plu	g(mm)	)			
Actuator	KN	Seat	₩10	15	20	25	32	40	50	65	80	100	125	150	200
2041.04.00	0.8	Adjust	3.00	1.50	1.16	0.84	0.55	0.38	0.24						
361LSA-08	0.6	Cut off			0.96	0.78	0.48	0.30	0.17						
361LSA-20	2.0	Adjust	9.30	4.92	3.70	2.66	1.80	1.26	0.80						
301L3A-20	2.0	Cut off			3.21	2.34	1.60	1.13	0.70						
361LSA-30	3.0	Adjust	9.50	7.50	5.60	4.10	2.73	1.90	1.23	0.82	0.58	0.34			
301L3A-30	3.0	Cut off			5.00	3.71	2.55	1.75	1.12	0.74	0.52	0.28			
361LSA-50	5.0	Adjust				7.00	4.72	3.38	2.15	1.44	1.02	0.59	0.38	0.26	
301L3A-30	3.0	Cut off				6.30	4.22	3.10	1.95	1.32	0.94	0.54	0.34	0.25	
361LSA-65	6.5	Adjust							2.90	1.90	1.35	0.80	0.51	0.35	
301L3A-03	0.5	Cut off							2.64	1.77	1.27	0.74	0.47	0.32	
361LSA-100	10.0	Adjust								3.00	2.10	1.20	0.80	0.56	0.28
301L3A-100	10.0	Cut off								2.75	1.96	1.15	0.73	0.52	0.27

#### 361L electronic actuator

Gland packing: flexible graphite

Unit: Mpa

Specification	Output	Sealing Type					Specif	ficatio	n of Va	lve Plu	ıg(mm)	)			
of The Actuator	Force KN	of Valve Seat	₩10	15	20	25	32	40	50	65	80	100	125	150	200
361LSA-08	0.8	Adjust	0.68	0.32	0.23	0.15									
301L3A-00	0.0	Cut off			0.11	0.05									
2641.64.20	2.0	Adjust	7.00	3.65	2.75	1.95	1.32	0.94	0.58						
361LSA-20	2.0	Cut off			2.40	1.70	1.15	0.80	0.50						
361LSA-30	3.0	Adjust	9.50	5.70	4.31	3.10	2.05	1.50	0.94	0.62	0.43	0.24			
301LSA-30	3.0	Cut off			3.75	2.74	1.80	1.32	0.83	0.55	0.38	0.20			
2041.04.50	5.0	Adjust				5.85	3.90	2.82	1.78	1.20	0.84	0.50	0.31	0.21	
361LSA-50	5.0	Cut off				5.20	3.45	2.55	1.64	1.10	0.76	0.45	0.27	0.19	
0041.04.05	0.5	Adjust							2.50	1.68	1.19	0.70	0.45	0.30	
361LSA-65	6.5	Cut off							2.30	1.54	1.10	0.63	0.41	0.27	
2041.04.400	10.0	Adjust								2.47	1.75	1.00	0.65	0.46	0.25
361LSA-100	10.0	Cut off								2.30	1.64	0.95	0.62	0.42	0.22

#### PSL electronic actuator

Gland packing: V-type PTFE

Unit: Mpa

Specification	Output	Sealing Type					Specif	ficatio	n of Va	lve Plu	ıg(mm)				
of The Actuator	Force KN	of Valve Seat	₩10	15	20	25	32	40	50	65	80	100	125	150	200
DOI 204MA	1.0	Adjust	3.50	2.29	1.61	1.15	0.71								
PSL201MA	1.0	Cut off			1.46	0.92	0.53								
PSL202MA	2.0	Adjust	9.50	5.31	3.84	2.72	1.78	1.24	0.75	0.47					
PSLZUZIVIA	2.0	Cut off			3.70	2.50	1.60	1.09	0.62	0.36					
PSL204.1MA	4.5	Adjust				6.66	4.45	3.17	1.98	1.30	0.85	0.48			
PSLZU4. IIVIA	4.5	Cut off				6.44	4.27	3.02	1.86	1.19	0.77	0.41			
PSL208.1MA	8.0	Adjust					8.19	5.87	3.71	2.46	1.64	0.95	0.59		
F3L2U0. IIVIA	6.0	Cut off					8.01	5.72	3.59	2.36	1.56	0.88	0.53		
PSL210MA	10.0	Adjust								3.12	2.09	1.21	0.76		
F SLZ TOWA	10.0	Cut off								3.02	2.01	1.15	0.71		
PSL312MA	12.0	Adjust									2.54	1.48	0.93	0.67	
PSL3 IZIVIA	12.0	Cut off									2.46	1.42	0.88	0.63	0.31
PSL314MA	14.0	Adjust											1.10	0.80	
F3L314IVIA	14.0	Cut off											1.05	0.75	0.38
PSL320MA	20.0	Adjust											1.61	1.17	0.59
I OLOZUIVIA	20.0	Cut off											1.56	1.13	0.59

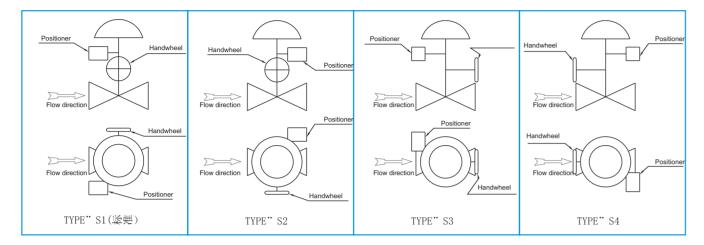
#### PSL electronic actuator

Gland packing: flexible graphite

Unit: Mpa

Specification	Output	Sealing Type													
of The Actuator		of Valve Seat	W10	15	20	25	32	40	50	65	80	100	125	150	200
PSL201MA	1.0	Adjust	0.85	0.58	0.15	0.11									
PSLZUTIVIA	1.0	Cut off			0.15	0.11									
PSL202MA	2.0	Adjust	7.50	3.44	2.27	1.60	1.08	0.78	0.50	0.34	0.23				
P3L2UZIVIA	2.0	Cut off			2.27	1.60	1.08	0.78	0.50	0.34	0.19				
PSL204.1MA	4.5	Adjust				5.33	3.61	2.61	1.67	1.12	0.76	0.45			
PSL204. TIVIA	4.5	Cut off				5.33	3.61	2.61	1.67	1.12	0.73	0.39			
PSL208.1MA	8.0	Adjust					7.16	5.17	3.31	2.22	1.51	0.90	0.56		
PSL200. TIVIA	0.0	Cut off					7.16	5.17	3.31	2.22	1.48	0.84	0.51		
PSL210MA	10.0	Adjust								2.85	1.94	1.15	0.72		
PSL2 IUIVIA	10.0	Cut off								2.85	1.90	1.09	0.67		
PSL312MA	12.0	Adjust									2.37	1.41	0.88	0.63	
PSL3 IZIVIA	12.0	Cut off									2.33	1.34	0.83	0.59	0.30
PSL314MA	14.0	Adjust											1.04	0.75	
PSL3 I4IVIA	14.0	Cut off											0.99	0.71	0.36
PSL320MA 20.0	Adjust											1.53	1.11	0.56	
FOLOZUIVIA	20.0	Cut off												1.07	0.56

The following figure is installation position figure of the actuator and accessories, so users can choose based on operating conveniently, air or cable joint position and other factors. S1 is standard installation position figure. (Attention: hand wheel is optional).



## Weight (equipped with pneumatic diaphragm actuator PDL)

Unit: Kg

Valve	Size	Actuator	150#1	PN1.6	300#1	PN4.0	600#1	PN10.0
DN	NPS	Actuator	Standard Type	Extension Type	Standard Type	Extension Type	Standard Type	Extension Type
45	4/0	PDL30	28	29	29	30	31	33
15	1/2	PDL40	35	36	36	37	38	40
20	3/4	PDL30	28	29	29	30	31	33
20	3/4	PDL40	35	36	36	37	38	40
25	1	PDL30	29	30	30	31	32	34
25	'	PDL40	36	37	37	38	39	41
		PDL30	35	36	41	43	49	51
40	1-1/2	PDL40	42	43	48	50	56	58
		PDL50	73	74	79	81	87	89
		PDL30	42	44	47	49	52	55
50	2	PDL40	49	51	54	56	59	62
		PDL50	80	82	85	87	90	93
65	2-1/2	PDL40	57	60	63	66	78	83
00	2-1/2	PDL50	88	91	91	94	106	111
80	3	PDL40	67	70	77	80	100	105
00	3	PDL50	98	101	108	111	131	136
100	4	PDL40	78	82	97	101	127	133
100	7	PDL50	108	112	127	131	158	164
125	5	PDL50	143	148	168	173	218	226
120	J	PDL60	161	166	186	191	236	244
150	6	PDL50	188	196	218	226	268	280
150	U	PDL60	206	214	236	246	286	300
200	8	PDL50L	268	280	318	333	438	458
200		PDL60	276	288	326	341	446	466

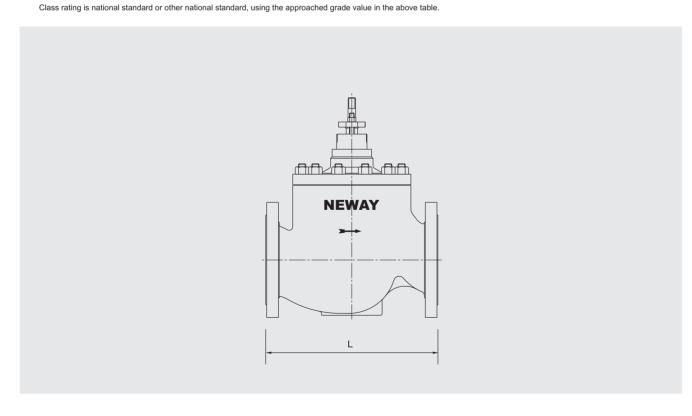
## Weight (equipped with electric actuator PSL)

Unit: Kg

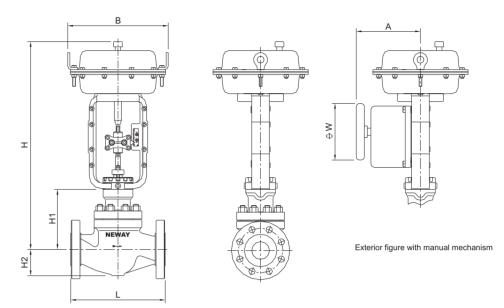
SN   NPS   Actuator   Standard Type   Extension Type   The process   The	Valve	Size	Actuator	150#´	PN1.6	300#′	PN4.0	600#′	PN10.0
15	SN	NPS	Actuator	Standard Type	Extension Type	Standard Type	Extension Type	Standard Type	Extension Type
PSL202  20			PSL201						
20 3/4 PSL202 13 14 14 15 16 18 18 PSL202 12 14 15 16 18 18 18 15 16 18 18 18 15 16 18 18 18 123 168 17 19 19 19 10 10 12 11 12 12 12 12 12 12 12 12 12 12 12	15	1/2	PSL202	13	14	14	15	16	18
PSL202 PSL201 PSL202 PSL204.1 15 16 16 17 18 20 PSL202 20 21 26 28 34 36 PSL202.1 21 22 27 29 35 37 PSL208.1 23 24 29 31 37 39 PSL208.1 28 30 33 35 38 41 PSL208.1 30 32 35 37 40 43 PSL208.1 36 39 41 44 55 60 PSL201 38 41 43 46 58 63 PSL201 48 51 58 61 78 83 PSL208.1 48 51 58 61 78 83 PSL208.1 48 51 58 61 78 83 PSL208.1 57 61 73 77 108 114 PSL210 PSL210 93 98 118 123 168 176 PSL312 61 65 76 80 111 117 PSL314 96 101 121 126 171 179 PSL314 PSL314 149 171 179 221 233 PSL314 PSL320 151 159 181 189 231 243	00	0/4	PSL201	40		44	45	40	40
25	20	3/4	PSL202	13	14	14	15	16	18
25			PSL201	4.4	45	45	40	47	40
PSL202 20 21 26 28 34 36  PSL204.1 21 22 27 29 35 37  PSL208.1 23 24 29 31 37 39  PSL202 27 29 32 34 37 40  PSL202 27 29 32 34 37 40  PSL208.1 30 33 35 38 41  PSL208.1 30 32 35 37 40 43  PSL208.1 36 39 41 44 55 60  PSL208.1 38 41 43 46 58 63  PSL210 38 41 43 46 58 63  PSL210 48 56 59 76 81  PSL210 48 56 59 76 81  PSL210 57 61 73 77 108 114  PSL210 PSL312 61 65 76 80 111 117  PSL312 96 101 121 126 171 179  PSL314 PSL314 141 149 171 179 221 233  PSL314 PSL314 141 149 171 179 221 233  PSL314 PSL310 151 159 181 189 231 243  PSL310 151 159 181 189 231 243	25	25 1	PSL202	14	15	15	16	1/	19
PSL204.1   21   22   27   29   35   37     PSL208.1   23   24   29   31   37   39     PSL202   27   29   32   34   37   40     PSL208.1   28   30   33   35   38   41     PSL208.1   30   32   35   37   40   43     PSL208.1   36   39   41   44   55   60     PSL208.1   PSL208.1   PSL210   38   41   43   46   58   63     PSL210   48   51   58   61   78   83     PSL208.1   PSL312   61   65   76   80   111   117     PSL312   61   65   76   80   111   117   117     PSL312   PSL314   PSL314   PSL314   PSL314   PSL314   PSL314   PSL316   PSL314   PSL316   PSL314   PSL316   PSL314   PSL320   151   159   181   189   231   243     200   8   PSL314   211   223   261   276   381   401     PSL314   PSL314   211   223   261   276   381   276   276   381   276   276   276   276   276   27		PSL204.1	15	16	16	17	18	20	
PSL208.1 23 24 29 31 37 39 PSL202 27 29 32 34 37 40  50 2 PSL204.1 28 30 33 35 38 41 PSL208.1 30 32 35 37 40 43 PSL208.1 36 39 41 44 55 60  65 2-1/2 PSL208.1 38 41 43 46 58 63 PSL210 38 41 43 46 58 63 PSL210 48 56 59 76 81 PSL210 PSL208.1 45 48 56 59 76 81 PSL210 PSL208.1 57 61 73 77 108 114 PSL210 PSL210 FSL210 FS 61 73 77 108 114  100 4 PSL210 PSL210 93 98 118 123 168 176 125 5 PSL312 96 101 121 126 171 179 PSL314 PSL314 141 149 171 179 221 233 150 6 PSL314 PSL310 151 159 181 189 231 243 200 8			PSL202	20	21	26	28	34	36
PSL202 27 29 32 34 37 40  PSL204.1 28 30 33 35 38 41  PSL208.1 30 32 35 37 40 43  PSL204.1 36 39 41 44 55 60  PSL208.1 38 41 43 46 58 63  PSL208.1 45 48 56 59 76 81  PSL208.1 48 51 58 61 78 83  PSL208.1 57 61 73 77 108 114  PSL210 PSL210 93 98 118 123 168 176  PSL312 61 65 76 80 111 117  PSL312 96 101 121 126 171 179  PSL314 PSL314 141 149 171 179 221 233  PSL314 PSL320 151 159 181 189 231 243  PSL314 211 223 261 276 381 401	40	40 1-1/2	PSL204.1	21	22	27	29	35	37
50 2 PSL204.1 28 30 33 35 38 41 PSL208.1 30 32 35 37 40 43 PSL204.1 36 39 41 44 55 60 65 2-1/2 PSL208.1 38 41 43 46 58 63 PSL210 45 48 56 59 76 81  80 3 PSL208.1 45 48 56 59 76 81 PSL210 48 51 58 61 78 83 PSL208.1 57 61 73 77 108 114 PSL210 PSL312 61 65 76 80 111 117  100 4 PSL312 61 65 76 80 111 117  125 5 PSL312 96 101 121 126 171 179 PSL314 PSL314 141 149 171 179 221 233 150 6 PSL314 PSL320 151 159 181 189 231 243 200 8			PSL208.1	23	24	29	31	37	39
PSL208.1 30 32 35 37 40 43 PSL204.1 36 39 41 44 55 60  65 2-1/2 PSL208.1 38 41 43 46 58 63 PSL210 38 56 59 76 81  80 3 PSL208.1 45 48 56 59 76 81  PSL210 57 61 73 77 108 114  PSL210 PSL312 61 65 76 80 111 117  PSL312 61 65 76 80 111 117  PSL312 61 65 76 80 111 117  PSL314 PSL314 96 101 121 126 171 179  PSL314 PSL314 141 149 171 179 221 233  PSL314 PSL320 151 159 181 189 231 243  200 8			PSL202	27	29	32	34	37	40
PSL204.1 36 39 41 44 55 60  PSL208.1	50	2	PSL204.1	28	30	33	35	38	41
65			PSL208.1	30	32	35	37	40	43
PSL210  PSL204.1  45  48  56  59  76  81  80  3  PSL208.1  PSL208.1  PSL208.1  PSL208.1  PSL210  PSL312  61  65  76  80  111  117  PSL312  PSL314  PSL314  PSL314  PSL314  PSL314  PSL314  PSL314  PSL314  PSL320  151  159  181  189  231  243  200  8			PSL204.1	36	39	41	44	55	60
PSL210  PSL204.1 45 48 56 59 76 81  PSL208.1 48 51 58 61 78 83  PSL208.1 57 61 73 77 108 114  PSL210 PSL210 61 65 76 80 111 117  PSL210 93 98 118 123 168 176  PSL312 96 101 121 126 171 179  PSL314 PSL314 141 149 171 179 221 233  PSL314 PSL320 151 159 181 189 231 243  PSL314 211 223 261 276 381 401	65	2-1/2	PSL208.1	20	44	42	46	E0	62
80			PSL210	38	41	43	46	56	63
PSL210 PSL210 PSL208.1 PSL208.1 FSL208.1 FSL210 PSL210 PSL210 PSL312 FSL210 PSL312 PSL210 PSL312 PSL314 PSL314 PSL314 PSL320 PSL314 PSL320 PSL314 PSL314 PSL320 PSL314 PSL314 PSL314 PSL320 PSL314 PSL			PSL204.1	45	48	56	59	76	81
PSL210 PSL208.1 FSL210 PSL208.1 FSL210 PSL210 PSL210 PSL312 FSL210 PSL210 PSL312 PSL210 PSL314 PSL314 PSL314 PSL314 PSL314 PSL314 PSL314 PSL320 PSL314 PSL31	80	3	PSL208.1	40					
100 4 PSL210 57 61 73 77 108 114  PSL312 61 65 76 80 111 117  PSL210 93 98 118 123 168 176  125 5 PSL312 96 101 121 126 171 179  PSL314 141 149 171 179 221 233  PSL314 PSL320 151 159 181 189 231 243  PSL314 211 223 261 276 381 401			PSL210	40	51	58	61	78	83
100			PSL208.1	E7				400	
PSL210 93 98 118 123 168 176  PSL312 96 101 121 126 171 179  PSL314 141 149 171 179 221 233  PSL314 PSL320 151 159 181 189 231 243  PSL314 211 223 261 276 381 401	100	4	PSL210	5/	61	/3	//	108	114
125			PSL312	61	65	76	80	111	117
PSL314  PSL314  PSL312  141  149  171  179  221  233  PSL320  151  159  181  189  231  243  PSL314  PSL314  211  223  261  276  381  401			PSL210	93	98	118	123	168	176
PSL314  PSL312  141  149  171  179  221  233  PSL314  PSL320  151  159  181  189  231  243  PSL314  211  223  261  276  381  401	125	5	PSL312	06	101	121	126	171	170
150 6 PSL314 141 149 171 179 221 233 150 PSL320 151 159 181 189 231 243 200 8 PSL314 211 223 261 276 381 401			PSL314	90	101	121	120	171	179
150 6 PSL314 PSL320 151 159 181 189 231 243 200 8 PSL314 211 223 261 276 381 401			PSL312	1.11	140	171	170	224	222
PSL314 211 223 261 276 381 401	150	6	PSL314	141	149	171	179	221	233
200 8			PSL320	151	159	181	189	231	243
PSL320 231 243 271 286 391 411	200	9	PSL314	211	223	261	276	381	401
	200	0	PSL320	231	243	271	286	391	411

			Face-face Dimension L										
Valve	Size		150 RF .6 RF		50 RTJ 6 RTJ		300 RF .0 RF	ANSI 3 PN4.	00 RTJ 0 RTJ		600 RF 0.0 RF		000 RTJ .0 RTJ
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
15	1/2	184	7.25	197	7.75	190	7.50	202	7.94	203	8.00	203	8.0
20	3/4	184	7.25	197	7.75	194	7.62	206	8.12	206	8.12	206	8.12
25	1	184	7.25	197	7.75	197	7.75	210	8.25	210	8.25	210	8.25
40	1-1/2	222	8.75	235	9.25	235	9.25	248	9.75	251	9.88	251	9.88
50	2	254	10.00	267	10.50	267	10.50	282	11.12	286	11.25	284	11.37
65	2-1/2	276	10.88	289	11.38	292	11.50	308	12.12	311	12.25	314	12.37
80	3	298	11.75	311	12.25	317	12.50	333	13.12	337	13.25	340	13.37
100	4	352	13.88	365	14.38	368	14.50	384	15.12	394	15.50	397	15.62
150	6	451	17.75	464	18.25	473	18.62	489	19.24	508	20.00	511	20.12
200	8	543	21.38	556	21.88	568	22.38	584	23.00	610	24.00	613	24.12
250	10	673	26.50	686	27.00	708	27.88	724	28.50	752	29.62	755	29.74
300	12	737	29.00	749	29.50	775	30.50	790	31.12	819	32.25	822	32.37
350	14	889	35.00	902	35.50	927	36.50	943	37.12	972	38.25	475	38.37
400	16	1016	40.00	1029	40.50	1057	41.62	1073	42.24	1108	43.62	1111	43.74

Note: According to IEC 60534-3-1976 < Part 3 dimension section 1: Face-to-Face Dimension for Flanged two-way Globe-Style Control Valves> .



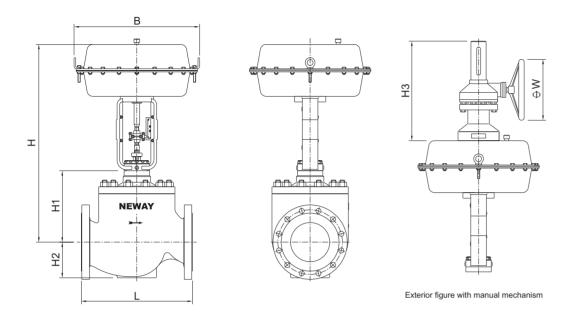
## PDL pneumatic diaphragm actuator



Unit: mm

Valve	Size			Н	F	l1	H2			207
DN	NPS	Actuator	Standard Type	Extension Type	Standard Type	Extension Type	H2	В	Α	W
45	440	PDL30	560	660	130	230	36	270	180	160
15	1/2	PDL40	580	680	130	230	36	350	180	160
20	3/4	PDL30	560	660	130	230	37	270	180	160
20	3/4	PDL40	580	680	130	230	37	350	180	160
25	1	PDL30	560	660	130	230	38	270	180	160
23	'	PDL40	580	680	130	230	38	350	180	160
		PDL30	600	750	170	320	65	270	180	160
40	1-1/2	PDL40	620	770	170	320	65	350	180	160
		PDL50	740	890	170	320	65	470	260	300
		PDL30	605	760	175	330	74	270	180	160
50	2	PDL40	625	780	175	330	74	350	180	160
		PDL50	745	900	175	330	74	470	260	300
65	2-1/2	PDL40	650	800	200	350	85	350	180	160
05	2-1/2	PDL50	770	900	200	350	85	470	260	300
80	3	PDL40	650	800	200	350	95	350	180	160
00	3	PDL50	770	920	200	350	95	470	260	300
100	4	PDL40	700	850	250	400	110	350	180	160
100	4	PDL50	820	970	250	400	110	470	260	300
125	5	PDL50	860	1010	290	440	170	470	260	300
150	6	PDL50	870	1020	300	450	180	470	260	300
200	8	PDL50L	1060	1210	360	510	215	470	260	300

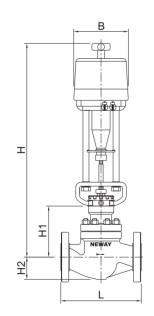
## PDL pneumatic diaphragm actuator

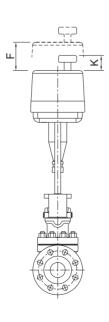


- 11	nıt.	mm
·	THE.	11111

Valve	Size		н н1				110		Н3	w
DN	NPS	Actuator	Standard Type	Extension Type	Standard Type	Extension Type	H2	В	110	VV
125	5	PDL60	950	1100	290	440	170	620	500	300
150	6	PDL60	960	1110	300	450	180	620	500	300
200	8	PDL60	1020	1170	365	510	215	620	500	300

## PSL electronic actuator





Unit: mm

DN   NPS	Valv	ve Size		н		H1				nic mm
15			Actuator		Extension Type		Extension Type	H2	K	F
PSL202   670   770   130   230   36   50   100			PSL201	670	770	130	230	36	50	100
20 3/4 PSL202 670 770 130 230 37 50 100  PSL201 670 770 130 230 38 50 100  25 1 PSL202 670 770 130 230 38 50 100  PSL204.1 670 770 130 230 38 50 100  PSL204.1 670 770 130 230 38 50 100  PSL204.1 670 770 130 230 38 50 100  40 1-1/2 PSL202 710 860 170 320 65 50 100  PSL208.1 740 890 170 320 65 50 100  PSL208.1 740 890 170 320 65 50 100  PSL208.1 740 890 170 330 74 50 100  PSL208.1 745 870 175 330 74 50 100  PSL208.1 745 900 175 330 74 50 100  PSL208.1 740 890 200 350 85 50 100  PSL204.1 740 890 200 350 85 50 100  PSL210 770 920 200 350 85 50 100  PSL208.1 770 920 200 350 95 50 100  PSL208.1 820 970 250 400 110 50 100  PSL210 770 920 200 350 95 50 100  PSL210 820 970 250 400 110 50 100  PSL210 820 970 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL312 940 1090 290 440 170 65 230  PSL312 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230	15	1/2	PSL202	670	770	130	230	36	50	100
PSL202 670 770 130 230 37 50 100  PSL201 670 770 130 230 38 50 100  PSL204.1 670 770 130 230 38 50 100  PSL202 710 860 170 320 65 50 100  PSL208.1 710 860 170 320 65 50 100  PSL208.1 740 890 170 320 65 50 100  PSL208.1 745 870 175 330 74 50 100  PSL208.1 745 870 175 330 74 50 100  PSL208.1 745 870 175 330 74 50 100  PSL208.1 745 900 175 330 74 50 100  PSL208.1 740 890 200 350 85 50 100  PSL208.1 770 920 200 350 85 50 100  PSL204.1 740 890 200 350 85 50 100  PSL204.1 740 890 200 350 85 50 100  PSL208.1 770 920 200 350 85 50 100  PSL208.1 770 920 200 350 95 50 100  PSL208.1 770 920 200 350 95 50 100  PSL208.1 820 970 250 400 110 50 100  PSL208.1 820 970 250 400 110 50 100  PSL312 900 1050 250 400 110 50 100  PSL312 900 1050 250 400 110 50 100  PSL312 940 1090 290 440 170 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230			PSL201	670	770	130	230	37	50	100
25	20	3/4	PSL202	670	770	130	230	37	50	100
PSL204.1 670 770 130 230 38 50 100  PSL202 710 860 170 320 65 50 100  40 1-1/2 PSL204.1 710 860 170 320 65 50 100  PSL208.1 740 890 170 320 65 50 100  PSL202 715 870 175 330 74 50 100  50 2 PSL204.1 715 870 175 330 74 50 100  PSL208.1 745 900 175 330 74 50 100  PSL208.1 740 890 200 350 85 50 100  PSL204.1 740 890 200 350 85 50 100  PSL204.1 740 890 200 350 85 50 100  PSL210 770 920 200 350 85 50 100  PSL210 770 920 200 350 85 50 100  PSL204.1 740 890 200 350 95 50 100  PSL204.1 740 890 200 350 95 50 100  PSL208.1 820 970 250 400 110 50 100  PSL208.1 820 970 250 400 110 50 100  PSL210 860 1010 290 440 110 50 100  100 4 PSL210 860 1010 290 440 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230			PSL201	670	770	130	230	38	50	100
PSL202 710 860 170 320 65 50 100 PSL204.1 710 860 170 320 65 50 100 PSL208.1 740 890 170 320 65 50 100 PSL208.1 740 890 170 320 65 50 100 PSL208.1 740 890 175 330 74 50 100 PSL208.1 715 870 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL208.1 740 890 200 350 85 50 100 PSL208.1 770 920 200 350 85 50 100 PSL210 770 920 200 350 85 50 100 PSL204.1 740 890 200 350 95 50 100 PSL208.1 770 920 200 350 95 50 100 PSL210 770 920 200 350 95 50 100 PSL210 770 920 200 350 95 50 100 PSL210 820 970 250 400 110 50 100 PSL312 900 1050 250 400 110 50 100 PSL312 900 1050 250 400 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL314 950 1100 300 450 180 65 230 PSL314 1010 1160 360 510 215 65 230	25	1	PSL202	670	770	130	230	38	50	100
40 1-1/2 PSL204.1 710 860 170 320 65 50 100 PSL208.1 740 890 170 320 65 50 100 S100 PSL208.1 740 890 170 320 65 50 100 S100 PSL208.1 740 890 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL204.1 740 890 200 350 85 50 100 PSL204.1 740 890 200 350 85 50 100 PSL210 770 920 200 350 85 50 100 PSL204.1 740 890 200 350 95 50 100 PSL208.1 770 920 200 350 95 50 100 PSL210 770 920 200 350 95 50 100 PSL208.1 820 970 250 400 110 50 100 PSL312 900 1050 250 400 110 50 100 PSL312 900 1050 250 400 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL314 950 1100 300 450 180 65 230 PSL314 950 1100 300 450 180 65 230 PSL314 950 1100 300 450 180 65 230 PSL314 1010 1160 360 510 215 65 230			PSL204.1	670	770	130	230	38	50	100
PSL208.1 740 890 170 320 65 50 100 PSL202 715 870 175 330 74 50 100  50 2 PSL204.1 715 870 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL208.1 745 900 175 330 74 50 100 PSL204.1 740 890 200 350 85 50 100 PSL210 770 920 200 350 85 50 100 PSL210 770 920 200 350 85 50 100 PSL204.1 740 890 200 350 85 50 100 PSL210 770 920 200 350 95 50 100 PSL204.1 740 890 200 350 95 50 100 PSL208.1 770 920 200 350 95 50 100 PSL208.1 820 970 250 400 110 50 100 PSL208.1 820 970 250 400 110 50 100 PSL312 900 1050 250 400 110 50 100 PSL312 900 1050 250 400 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL312 950 1100 300 450 180 65 230 PSL314 950 1100 300 450 180 65 230 PSL320 1180 1330 300 450 180 65 230			PSL202	710	860	170	320	65	50	100
PSL202 715 870 175 330 74 50 100  PSL204.1 715 870 175 330 74 50 100  PSL208.1 745 900 175 330 74 50 100  PSL204.1 740 890 200 350 85 50 100  PSL210 770 920 200 350 85 50 100  PSL210 770 920 200 350 85 50 100  PSL210 770 920 200 350 85 50 100  PSL204.1 740 890 200 350 85 50 100  PSL208.1 770 920 200 350 95 50 100  PSL208.1 770 920 200 350 95 50 100  PSL210 820 970 250 400 110 50 100  PSL210 820 970 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL312 940 1090 290 440 170 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230	40	1-1/2	PSL204.1	710	860	170	320	65	50	100
50			PSL208.1	740	890	170	320	65	50	100
PSL208.1 745 900 175 330 74 50 100 PSL204.1 740 890 200 350 85 50 100 PSL208.1 770 920 200 350 85 50 100 PSL210 770 920 200 350 85 50 100 PSL210 770 920 200 350 85 50 100  80 3 PSL208.1 770 920 200 350 95 50 100 PSL210 820 970 250 400 110 50 100 PSL312 900 1050 250 400 110 50 100 PSL312 900 1050 250 400 170 65 230 PSL314 940 1090 290 440 110 50 100 PSL314 940 1090 290 440 170 65 230 PSL314 940 1090 290 440 170 65 230 PSL312 950 1100 300 450 180 65 230 PSL314 950 1100 300 450 180 65 230 PSL320 1180 1330 300 450 180 65 230 PSL314 1010 1160 360 510 215 65 230			PSL202	715	870	175	330	74	50	100
PSL204.1 740 890 200 350 85 50 100 PSL208.1 770 920 200 350 85 50 100 PSL210 770 920 200 350 85 50 100  PSL204.1 740 890 200 350 95 50 100  80 3 PSL208.1 770 920 200 350 95 50 100  PSL210 770 920 200 350 95 50 100  PSL210 770 920 200 350 95 50 100  PSL210 820 970 250 400 110 50 100  PSL312 900 1050 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL312 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230	50	2	PSL204.1	715	870	175	330	74	50	100
65			PSL208.1	745	900	175	330	74	50	100
PSL210 770 920 200 350 85 50 100  PSL204.1 740 890 200 350 95 50 100  80 3 PSL208.1 770 920 200 350 95 50 100  PSL210 770 920 200 350 95 50 100  PSL208.1 820 970 250 400 110 50 100  PSL210 820 970 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL210 860 1010 290 440 110 50 100  125 5 PSL312 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230			PSL204.1	740	890	200	350	85	50	100
PSL204.1 740 890 200 350 95 50 100  PSL208.1 770 920 200 350 95 50 100  PSL210 770 920 200 350 95 50 100  PSL208.1 820 970 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1180 1330 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230	65	2-1/2	PSL208.1	770	920	200	350	85	50	100
80 3 PSL208.1 770 920 200 350 95 50 100 PSL210 770 920 200 350 95 50 100 PSL208.1 820 970 250 400 110 50 100 PSL312 900 1050 250 400 170 65 230 PSL312 940 1090 290 440 170 65 230 PSL314 950 1100 300 450 180 65 230 PSL314 950 1100 300 450 180 65 230 PSL314 1010 1160 360 510 215 65 230			PSL210	770	920	200	350	85	50	100
PSL210 770 920 200 350 95 50 100  PSL208.1 820 970 250 400 110 50 100  PSL210 820 970 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL210 860 1010 290 440 110 50 100  125 5 PSL312 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL312 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230			PSL204.1	740	890	200	350	95	50	100
PSL208.1 820 970 250 400 110 50 100  PSL210 820 970 250 400 110 50 100  PSL312 900 1050 250 400 170 65 230  PSL210 860 1010 290 440 110 50 100  PSL312 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL314 950 1100 300 450 180 65 230  PSL320 1180 1330 300 450 180 65 230  PSL314 1010 1160 360 510 215 65 230	80	3	PSL208.1	770	920	200	350	95	50	100
100			PSL210	770	920	200	350	95	50	100
PSL312 900 1050 250 400 170 65 230  PSL210 860 1010 290 440 110 50 100  125 5 PSL312 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL312 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL320 1180 1330 300 450 180 100 230  PSL314 1010 1160 360 510 215 65 230			PSL208.1	820	970	250	400	110	50	100
PSL210 860 1010 290 440 110 50 100  PSL312 940 1090 290 440 170 65 230  PSL314 940 1090 290 440 170 65 230  PSL312 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL320 1180 1330 300 450 180 100 230  PSL314 1010 1160 360 510 215 65 230	100	4	PSL210	820	970	250	400	110	50	100
125			PSL312	900	1050	250	400	170	65	230
PSL314 940 1090 290 440 170 65 230 PSL312 950 1100 300 450 180 65 230 PSL314 950 1100 300 450 180 65 230 PSL320 1180 1330 300 450 180 100 230 PSL314 1010 1160 360 510 215 65 230			PSL210	860	1010	290	440	110	50	100
PSL312 950 1100 300 450 180 65 230  PSL314 950 1100 300 450 180 65 230  PSL320 1180 1330 300 450 180 100 230  PSL314 1010 1160 360 510 215 65 230	125	5	PSL312	940	1090	290	440	170	65	230
150 6 PSL314 950 1100 300 450 180 65 230 PSL320 1180 1330 300 450 180 100 230 PSL314 1010 1160 360 510 215 65 230			PSL314	940	1090	290	440	170	65	230
PSL320 1180 1330 300 450 180 100 230 PSL314 1010 1160 360 510 215 65 230			PSL312	950	1100	300	450	180	65	230
PSL314 1010 1160 360 510 215 65 230	150	6	PSL314	950	1100	300	450	180	65	230
PSL314 1010 1160 360 510 215 65 230			PSL320	1180	1330	300	450	180	100	230
200 8	200	Q	PSL314	1010	1160	360	510	215	65	230
PSL320 1240 1390 360 510 215 100 230	200	- 0	PSL320	1240	1390	360	510	215	100	230

The following table is comparison on flange standard in common use, including ISO international standard, ANSI American standard, JIS Japanese standard, DIN German standard, GB Chinese national standard, HG standard of Chinese Chemistry Department, JB standard of Chinese Machinery Department, etc. The same code number standard of Neway Company expresses that they can exchange for use with each other, but not definitely in full accord.

	Standard	l Number
Code Number of Neway Company	ANSI B16.5 ANSI B16.47	GB/T9112~9124-2000 HG20615~20635-97 ISO7005-1:1992
0	125 Lb	
1	150 Lb	PN2.0 MPa
2	250 Lb	
3	300 Lb	PN5.0 MPa
4	400 Lb	
6	600 Lb	PN11.0 MPa
8	800 Lb	
9	900 Lb	PN15.0 MPa
15	1500 Lb	PN26.0 MPa
25	2500 Lb	PN42.0 MPa

	Standard Number
Code Number of Neway Company	JIS
2K	2K
5K	5K
10K	10K
16K	16K
20K	20K
30K	30K
40K	40K
63K	63K

	Sta	ndard Number	
Code Number of Neway Company	GB/T9112~9124-2000 HG20592~20614-97	DIN	ISO7005-1:1992
01P1		PN0.1 MPa	
02P1	PN0.25 MPa	PN0.25 MPa	PN0.25 MPa
06P1	PN0.6 MPa	PN0.6 MPa	PN0.6 MPa
10P1	PN1.0 MPa	PN1.0 MPa	PN1.0 MPa
16P1	PN1.6 MPa	PN1.6 MPa	PN1.6 MPa
25P1	PN2.5 MPa	PN2.5 MPa	PN2.5 MPa
40P1	PN4.0 MPa	PN4.0 MPa	PN4.0 MPa
63P1	PN6.3 MPa	PN6.3 MPa	
100P1	PN10 MPa	PN10 MPa	
160P1	PN16 MPa	PN16 MPa	
250P1	PN25 MPa	PN25 MPa	
320P1		PN32 MPa	
400P1		PN40 MPa	

	Standard Number
Code Number of Neway Company	JB/T 79.1~86.2-94
02P2	PN0.25 MPa
06P2	PN0.6 MPa
10P2	PN1.0 MPa
16P2	PN1.6 MPa
25P2	PN2.5 MPa
40P2	PN4.0 MPa
63P2	PN6.3 MPa
100P2	PN10 MPa
160P2	PN16 MPa
200P2	PN20 MPa

# **Product Warranty**

Seller will replace without charge or refund the purchase price of products provided by Seller which prove to be defective in material or workmanship, provided in each case that the product is properly installed and is used in the service for which Seller recommends it and that written claim, specifying the alleged defect, is presented to the Seller within 18 months from the date of shipment or 12 months after installation, whichever occurs first. Seller shall in no event bear any labor, equipment, engineering or other costs incurred in connection with repair of replacement. The warranty stated in this paragraph is in lieu of all other warranties, either expressed or implied. With respect to warranties, this paragraph states Buyer's exclusive remedy and seller's exclusive liability.