

PISTON SENSING PRESSURE REDUCING VALVE PRV31 (1/2" – 3/4"; DN 15 – DN 20)

DESCRIPTION

The ADCA PRV31 series direct acting, spring-loaded piston sensing, balanced plug pressure reducing valves, are designed for use on compressed air, water and other gases or liquids compatible with the materials of the construction.

They are suitable for pressure reducing stations at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

MAIN FEATURES

- Compact design.
- Balanced valve plug.
- Machined from bar stock materials or investment casting.

- OPTIONS:**
- Different soft valves for water and gases.
 - Relieving – Internal relief valve to allow reduced outlet pressure in a no-flow condition.
 - Built-in strainer.
 - 1/4" outlet gauge connection on body.
 - Top cap (adjustment screw with cover).

- USE:**
- Compressed air, water and other gases and liquids compatible with the construction.

- AVAILABLE MODELS:**
- PRV31SS – stainless steel, piston sensing.

- SIZES:**
- 1/2" and 3/4"; DN 15 and DN 20.

- CONNECTIONS:**
- Female threaded ISO 7 Rp or NPT.
 - Flanged EN 1092-1 PN 40 or PN 63.
 - Flanged ASME B16.5 Class 150 or 300.

- INSTALLATION:**
- Horizontal installation.
 - See IMI – Installation and maintenance instructions.
 - A "Y" strainer should be installed upstream of the valve.

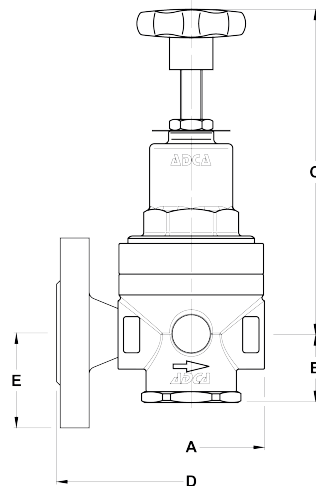


FLOW RATE COEFFICIENTS (m ³ /h)		
SIZE	1/2" – DN 15	3/4" – DN 20
Kvs	3	3,5

LIMITING CONDITIONS	
Valve model	PRV31SS
Body design conditions	PN 63
Maximum upstream pressure	50 bar
Maximum downstream pressure	50 bar
Minimum downstream pressure	3 bar
Maximum design temperature *	80 °C
Maximum recommended reducing ratio	40:1

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 63	Category
1/2" to 3/4" – DN 15 to 20	SEP



DIMENSIONS (mm)

THREADED					PN 40			PN 63		
SIZE	A	B	C	WEIGHT (kg)	D *	E	WEIGHT (kg)	D *	E	WEIGHT (kg)
1/2" – DN 15	80	38	175	2,6	150	47,5	4	210	52,5	4,9
3/4" – DN 20	80	38	175	2,6	150	52,5	4,7	230	70	6,9

* Different lengths on request.

Remarks: DN 15 PN 40 face to face dimensions were adopted as per DN 20; For flanged ASME versions dimensions, consult manufacturer.

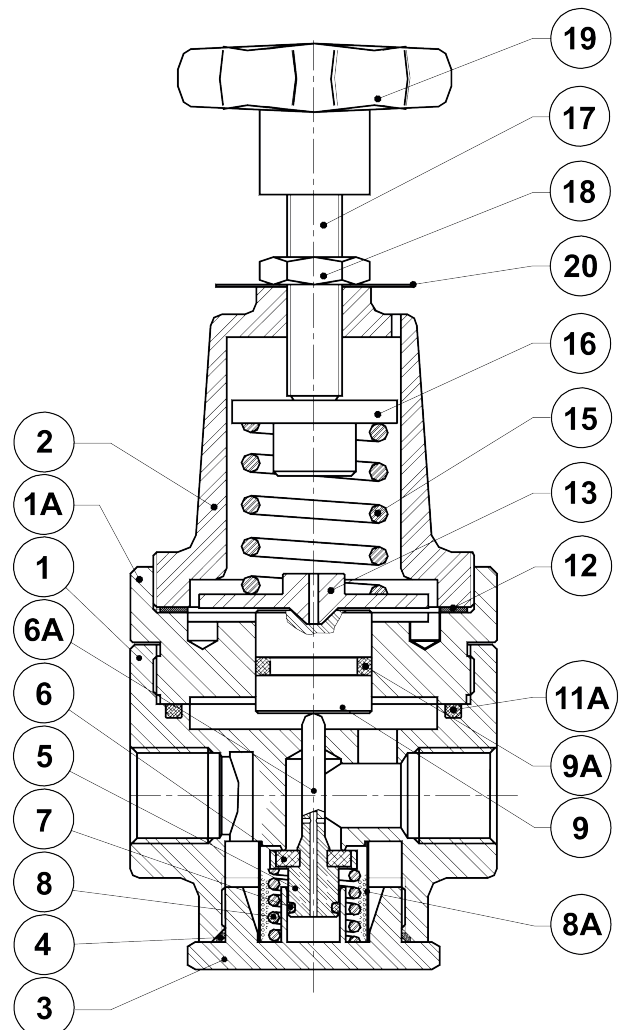
MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Valve body a)	A351 CF8M / 1.4408 (AISI 316 / 1.4401)
1A	Piston sleeve	AISI 316 / 1.4401
2	Top cover a)	A351 CF8M / 1.4408 (AISI 316 / 1.4401)
3	Seat cover a)	A351 CF8M / 1.4408 (AISI 316 / 1.4401)
4	* O-ring	NBR
5	* Piston valve	AISI 316 / 1.4401
6	* Valve head	NBR ; EPDM ; PTFE ; etc.
6A	Pushrod	AISI 316 / 1.4401
7	* O-ring	NBR ; EPDM ; PTFE ; etc.
8	* Valve spring	AISI 302 / 1.4300
8A	* Strainer screen	AISI 304 / 1.4301
9	Piston	AISI 316 / 1.4401
9A	* O-ring	NBR ; EPDM ; Viton ; etc.
11A	* O-ring	NBR ; EPDM ; PTFE ; etc.
12	Gasket	Aluminium
13	Spring plate	AISI 304 / 1.4301
15	* Adjustment spring	Spring steel
16	Top spring plate	Brass
17	Adjustment screw	AISI 304 / 1.4301
18	Locknut	Stainless steel A2 – 70
19	Handwheel	Plastic
20	Spring id. plate	Aluminium

* Available spare parts.

Remarks: All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.

a) Bar stock execution on request.



ORDERING CODES PRV31													
Valve model	R31	.	5	W	N	C	4	R	.	A	15		
PRV31SS – piston sensing pressure reducing valve	R31												
Regulating range													
N° 5 - 3 to 30 bar			5										
N° 6 - 5 to 50 bar			6										
Application													
Water				W									
Gases				G									
Oxygen (degreased)				O									
Seal material a)													
NBR				N									
EPDM				E									
PTFE b)				T									
FPM / Viton				V									
Maximum inlet pressure													
30 bar						C							
50 bar						D							
Gauge port 1/4"													
Without gauge ports						(1)							
Gauge port on the left side (relative to the flow direction)						4							
Gauge port on the right side (relative to the flow direction)						3							
Gauge ports on both sides						2							
Relieving													
Non-relieving								(1)					
Relieving (only for non-dangerous gases)								R					
Pipe connection													
Female threaded ISO 7 Rp										A			
Female threaded NPT ASME B1.20.1										C			
Socket weld (SW) ASME B16.11										H			
Butt weld (BW) ASME B16.25										I			
Flanged EN 1092-1 PN 40										N			
Flanged EN 1092-1 PN 63										O			
Flanged ASME B16.5 Class 150										U			
Flanged ASME B16.5 Class 300										V			
Flanged ASME B16.5 Class 600										W			
Size													
1/2" or DN 15										15			
3/4" or DN 20										20			
Special valves / Extras													
Full description or additional codes have to be added in case of non-standard combination.											E		

(1) Omitted if a standard valve is requested.

a) Valve limited to the materials' maximum operating temperature. Consult manufacturer for more details.

b) Valve seal only, other seals in Viton.

PISTON SENSING PRESSURE REDUCING VALVE PRV31SS 1" – 1 1/4"; DN 25 – DN 32

DESCRIPTION

The ADCA PRV31 series direct acting, spring-loaded piston sensing, balanced plug pressure reducing valves, are designed for use on compressed air, water and other gases or liquids compatible with the materials of the construction.

They are suitable for pressure reducing stations at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

MAIN FEATURES

Compact design.
Balanced valve.

OPTIONS: Different soft valves for water and gases.
Relieving – Internal relief valve to allow reduced outlet pressure in a no-flow condition.
Outlet 1/4" gauge connection on body.
Regulating screw with top cap.

USE: Compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS: PRV31SS – Stainless steel.

SIZES: 1" and 1 1/4".
DN 25 and DN 32.

CONNECTIONS: Female threaded ISO 7 Rp or NPT.
Flanged EN1092-1 PN40 or PN63.
Special flanges upon request.
Horizontal installation.

INSTALLATION: An "Y" strainer should be installed upstream of the valve.
See IMI – Installation and maintenance instructions.

ORDER REQUIREMENTS: Type of fluid.
Maximum operating temperature.
Inlet pressure and required outlet pressure.
Capacity (maximum and minimum).



PN40

PN63

CE MARKING – GROUP 2 (PED – European Directive)	
PN40 / PN63	Category
1" and 1 1/4"; DN 25 and DN 32	SEP

CAPACITIES		
Valve size	1" – DN 25	1 1/4" – DN 32
Kvs (m3/h)	7,5	8,2

LIMITING CONDITIONS	
Valve model	PRV31SS
Body design conditions	PN63
Max. upstream pressure	50 bar
Max. downstream pressure	50 bar
Min. upstream pressure	3 bar
Max. design temperature *	80 °C
Max. recommended reducing ratio	40:1

* Others on request.

DIMENSIONS (mm) - BAR STOCK

THREADED				PN40			PN63			ANSI 150 lb			ANSI 300 lb			
SIZE	A	B	C	WGT. (kg)	D *	E	WGT. (kg)	D *	E	WGT. (kg)	D *	E	WGT. (kg)	D *	E	WGT. (kg)
1" - DN 25	125	66	275	9,7	230	58	12	230	70	15	230	54	14	230	62	17
1 1/4" - DN 32	125	66	275	9,7	260	70	14	260	78	17	260	59	15	260	67	18

* Different lenghts on request.

DIMENSIONS (mm) - CASTED

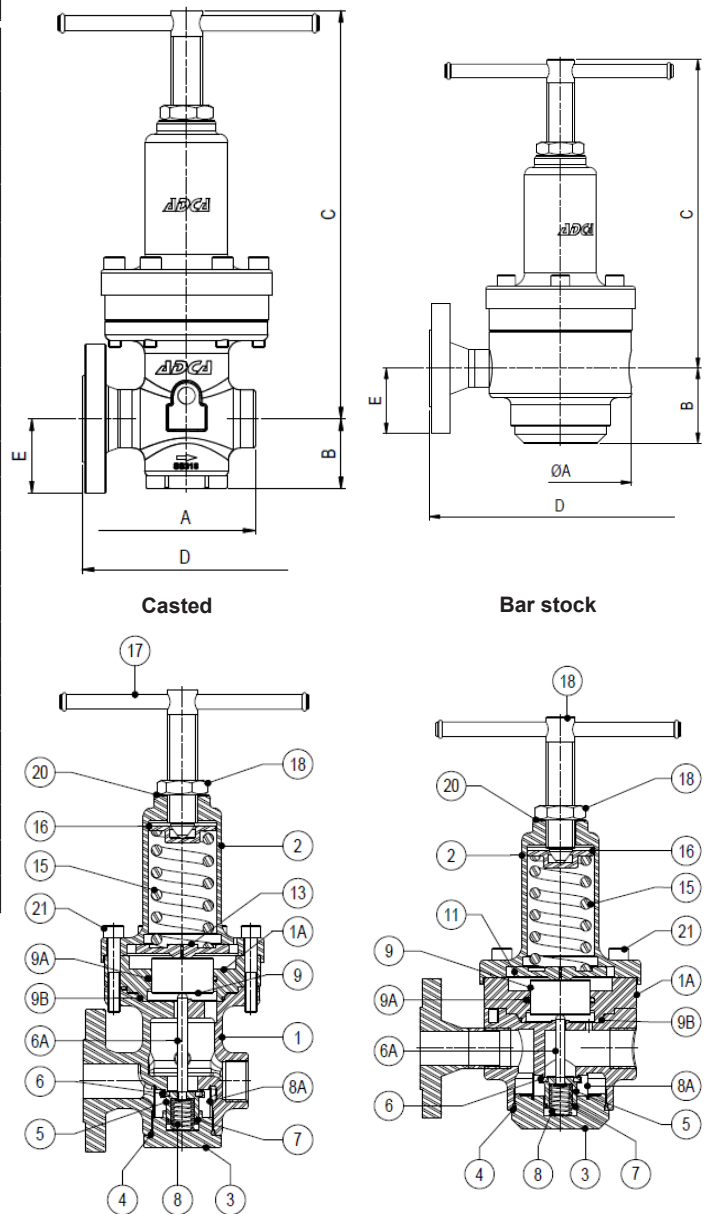
THREADED					PN40		
SIZE	A	B	C	WGT. (kg)	D *	E	WGT. (kg)
1" - DN 25	105	60	320	8,6	160	57,5	10,7

MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316 / 1.4401; CF8M / 1.4408
1A	Piston sleeve	AISI 316 / 1.4401
2	Top cover	CF8M / 1.4408
3	Seat cover	AISI 316 / 1.4401
4	* O-ring	NBR
5	* Piston valve	AISI 316 / 1.4401
6	* Valve head	NBR; EPDM; PTFE; etc.
6A	Pushrod	AISI 316 / 1.4401
7	* O-ring	NBR; EPDM; PTFE; etc.
8	* Valve spring	AISI 302 / 1.4300
8A	* Strainer screen	AISI 304 / 1.4301
9	Piston	AISI 316 / 1.4401
9A	* O-ring	NBR; EPDM; Viton; etc.
9B	* O-ring	NBR; EPDM; PTFE; etc.
13	Spring plate	AISI 304 / 1.4301
15	* Adjustment spring	Spring steel
16	Top spring plate	Brass
17	Adjustment screw	AISI 304 / 1.4301
18	Locknut	Stainless steel A2-70
20	Spring id. plate	Aluminium
21	Bolts	Stainless steel A2-70
20	Spring id. plate	Aluminium

* Available spare parts.

Remarks: All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.



ORDERING CODES PRV31SS											
Valve model	R31	.	5	W	N	C			.	A	
PRV31SS – Piston sensing	R31										
Outlet spring range											
N° 5 - 3 to 30 bar			5								
N° 6 - 5 to 50 bar			6								
Application											
Water				W							
Gases				G							
Oxygen (degreased)				O							
Seal material											
NBR					N						
EPDM					E						
PTFE a)					T						
FPM / Viton					V						
Maximum inlet pressure											
30 bar						C					
50 bar						D					
Gauge port 1/4"											
Without gauge ports							(1)				
Gauge port on the left side (relative to the flow direction)							4				
Gauge port on the right side (relative to the flow direction)							3				
Gauge ports on both sides							2				
Relieving											
Non-relieving							(1)				
Relieving (only for non dangerous gases)							R				
Pipe connection											
Threaded ISO 7 Rp										A	
Threaded NPT ANSI B1.20.1										C	
Socket weld SW ANSI B16.11										H	
Butt weld BW ANSI B16.25										I	
Flanged EN 1092-1 PN40										N	
Flanged EN 1092-1 PN63										O	
Flanged ANSI B16.5 150 lb										U	
Flanged ANSI B16.5 300 lb										V	
Flanged ANSI B16.5 600 lb										W	
Size											
1" or DN 25											25
1 1/4" or DN 32											32
Special valves / Extras											
Full description or additional codes have to be added in case of non-standard combination.											E

(1) Omitted if a standard valve is requested.

a) Valve seal only, other seals in Viton.

PISTON SENSING PRESSURE REDUCING VALVE PRV31 (1 1/2" – 2"; DN 40 – DN 50)

DESCRIPTION

The ADCA PRV31 series direct acting, spring-loaded piston sensing, balanced plug pressure reducing valves, are designed for use on compressed air, water and other gases or liquids compatible with the materials of the construction.

They are suitable for pressure reducing stations at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

MAIN FEATURES

Compact design.
Balanced valve plug.
Machined from bar stock materials.

OPTIONS: Different soft valves for water and gases.
Relieving – Internal relief valve to allow reduced outlet pressure in a no-flow condition.
Built-in strainer.
1/4" outlet gauge connection on body.
Top cap (adjustment screw with cover).

USE: Compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS: PRV31SS – stainless steel, piston sensing.

SIZES: 1 1/2" and 2"; DN 40 and DN 50.

CONNECTIONS: Female threaded ISO 7 Rp or NPT.
DN 40: Flanged EN 1092-1 Type 11 B PN 40 or PN 63.
DN 50: Flanged EN 1092-1 Type 01 A PN 40 *.
DN 50: Flanged EN 1092-1 Type 11 B PN 63.
* Type 11 B PN 40 welding neck available, with different face to face dimensions.

INSTALLATION: Horizontal installation.
A "Y" strainer should be installed upstream of the valve.
See IMI – Installation and maintenance instructions.



Type 11 B flanges



Type 01 A flanges

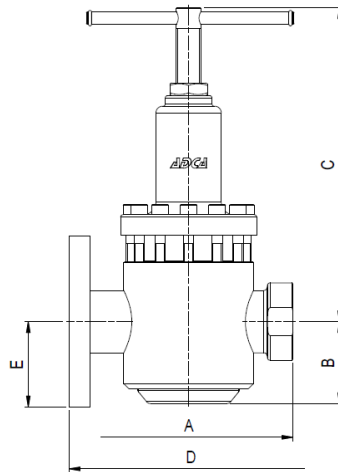
FLOW RATE COEFFICIENTS (m ³ /h)		
SIZE	1 1/2" – DN 40	2" – DN 50
Kvs	14,4	15,4

LIMITING CONDITIONS	
Valve model	PRV31SS
Body design conditions	PN 63
Maximum upstream pressure	50 bar
Maximum downstream pressure	50 bar
Minimum downstream pressure	3 bar
Maximum design temperature *	80 °C
Maximum recommended reducing ratio	40:1

* Others on request.

CE MARKING – GROUP 2 (PED – European Directive)

PN 63	Category
1 1/2" to 2" – DN 40 to 50	1 (CE marked)



DIMENSIONS (mm)																		
THREADED					PN 40			PN 63/100				CLASS 150			CLASS 300			
SIZE	A	B	C	WGT. (kg)	D *	E	WGT. (kg)	D *	E PN 63	E PN 100	WGT. (kg)	D *	E	WGT. (kg)	D *	E	WGT. (kg)	
1 1/2" – DN 40	205	86	305	14,8	201	75	18,1	260	85	85	22,1	235	63,5	17,5	248	78	20	
2" – DN 50	205	80	305	15,1	230 **	82,5	20,3	300	90	97,5	24,6	254	76	20	267	82,5	21,7	

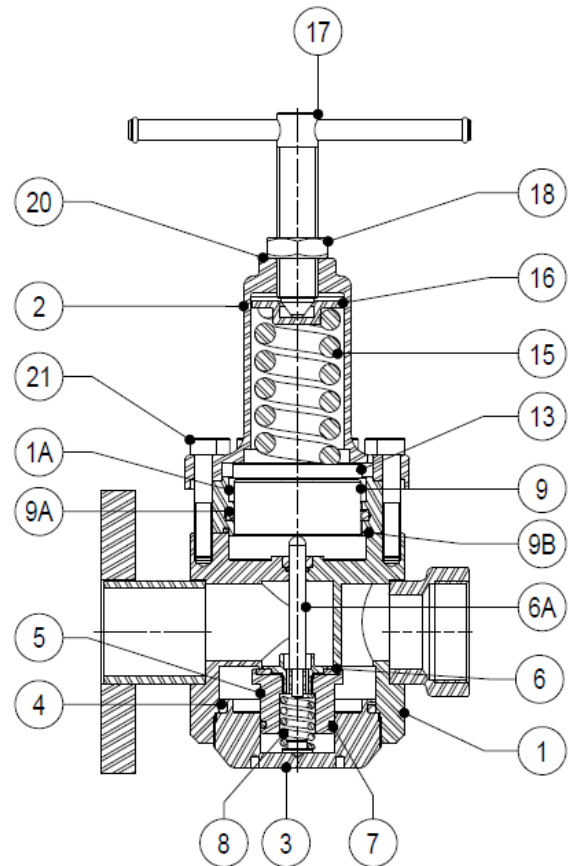
* Different lenghts on request.

** Only available with flat flanges EN 1092-1 type 01 A. Welding neck type 11 B flanges as option with 300 mm minimum face to face dimensions.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316 / 1.4401
1A	Piston sleeve	AISI 316 / 1.4401
2	Top cover	A351 CF8M / 1.4408
3	Seat cover	AISI 316 / 1.4401
4	* O-ring	NBR
5	* Piston valve	AISI 316 / 1.4401
6	* Valve head	NBR, EPDM, PTFE, etc.
6A	Pushrod	AISI 316 / 1.4401
7	* O-ring	NBR, EPDM, PTFE, etc.
8	* Valve spring	AISI 302 / 1.4300
9	Piston	AISI 316 / 1.4401
9A	* O-ring	NBR, EPDM, Viton, etc.
9B	* O-ring	NBR, EPDM, PTFE, etc.
13	Spring plate	AISI 304 / 1.4301
15	* Adjustment spring	Spring steel
16	Top spring plate	Brass
17	Adjustment screw	AISI 304 / 1.4301
18	Locknut	Stainless steel A2-70
20	Spring id. plate	Aluminium
21	Bolts	Stainless steel A2-70

* Available spare parts.

Remarks: All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.



ORDERING CODES PRV31													
Valve model	R31	.	5	W	N	C	4	R	.	A	40		
PRV31SS – piston sensing pressure reducing valve	R31												
Regulating range													
N° 5 - 3 to 30 bar			5										
N° 6 - 5 to 50 bar			6										
Application													
Water				W									
Gases				G									
Oxygen (degreased)				O									
Seal material a)													
NBR				N									
EPDM				E									
PTFE b)				T									
FPM / Viton				V									
Maximum inlet pressure													
30 bar						C							
50 bar						D							
Gauge port 1/4"													
Without gauge ports						(1)							
Gauge port on the left side (relative to the flow direction)						4							
Gauge port on the right side (relative to the flow direction)						3							
Gauge ports on both sides						2							
Relieving													
Non-relieving								(1)					
Relieving (only for non-dangerous gases)								R					
Pipe connection													
Female threaded ISO 7 Rp										A			
Female threaded NPT ASME B1.20.1										C			
Socket weld (SW) ASME B16.11										H			
Butt weld (BW) ASME B16.25										I			
Flanged EN 1092-1 PN 40										N			
Flanged EN 1092-1 PN 63										O			
Flanged EN 1092-1 PN 100										P			
Flanged ASME B16.5 Class 150										U			
Flanged ASME B16.5 Class 300										V			
Flanged ASME B16.5 Class 600										W			
Size													
11/2" or DN 40										40			
2" or DN 50										50			
Special valves / Extras													
Full description or additional codes have to be added in case of non-standard combination.											E		

(1) Omitted if a standard valve is requested.

a) Valve limited to the materials maximum operating temperature. Consult manufacturer for more details.

b) Valve seal only, other seals in Viton.