PISTON SENSING PRESSURE REDUCING VALVES
PRV41SS

DESCRIPTION

The ADCA PRV41SS is a series of direct acting, spring loaded, piston sensing pressure reducing valves.
These regulators are designed for use with nitrogen, compressed air, water and other gases and liquids compatible with the materials of construction.
They are suitable for general purpose pressure reducing applications such as instrumentation systems and industrial equipment where small loads and high pressures are involved.



MAIN FEATURES

Compact design.
Balanced valve plug.
Completely machined from solid bar stock material.



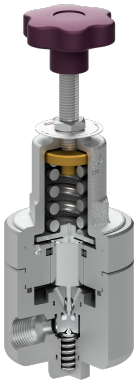
OPTIONS: Self relieving.
Top cap (adjustment screw with cover).
Gauge connection on body.
Different soft valves for liquids and gases.
Degreased for oxygen application.

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

AVAILABLE MODELS: PRV41SS – stainless steel, piston sensing.

SIZES: 1/4" to 3/4"; DN 15 and DN 20.

CONNECTIONS: Female threaded ISO 7 Rp, ISO 228 or NPT.
Flanged EN 1092-1 PN 40 to PN 250.
Flanged ASME B16.5 Class 150, 300 or 600.



INSTALLATION: Horizontal or vertical installation.
See IMI – Installation and maintenance instructions.

LIMITING CONDITIONS						
VALVE MODEL	**PRV41SS**					
Body design conditions	Class 150	Class 300	Class 600	PN 40	PN 100	PN 250
Maximum upstream pressure	16 bar	40 bar	80 bar	40 bar	100 bar	220 bar
Maximum downstream pressure	200 bar					
Minimum downstream pressure	3 bar					
Maximum design temperature	80 °C					
Max. recommended reducing ratio	40:1					

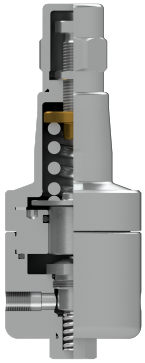
* Rating PN 250 for threaded versions.

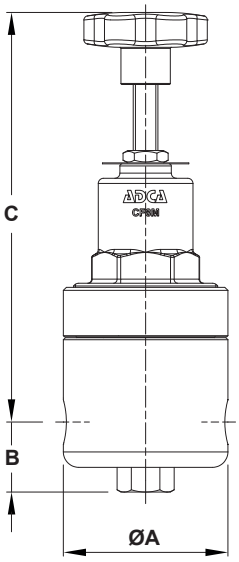
CE MARKING – GROUP 2 (PED – EUROPEAN DIRECTIVE)	
PN 250	**CATEGORY**
1/4" to 3/4" – DN 15 and 20	SEP

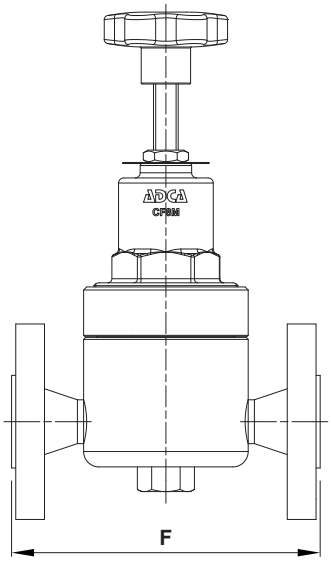
FLOW RATE COEFFICIENTS (m^3/h)				
SIZE	**1/4"**	**3/8"**	**1/2" DN 15**	**3/4" DN 20**
Kvs	0,7	0,8	0,9	0,9

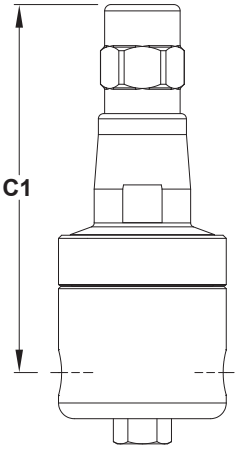
We reserve the right to change the design and material of this product without notice.

OPTIONS

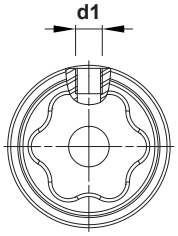
TOP CAP	GAUGE CONNECTION
	







Optional top cap



Optional gauge connection

DIMENSIONS (mm)

SIZE	THREADED						PN 40		PN 100		PN 250		CLASS 150		CLASS 300		CLASS 600	
	ØA	B	C	C1	d1	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)	F *	WGT. (kg)
1/4"	80	34	200	176	1/4"	3,7	–	–	–	–	–	–	–	–	–	–	–	–
3/8"	80	34	200	176	1/4"	3,7	–	–	–	–	–	–	–	–	–	–	–	–
1/2" – DN 15	80	34	200	176	1/4"	3,7	150	6,8	210	7,8	230	10,3	150	6,5	150	6,8	180	7,2
3/4" – DN 20	80	34	200	176	1/4"	3,7	150	7,4	210	9,4	230	11,9	150	6,7	150	7,8	180	8,2

* Different face to face dimensions on request.

Remarks: As standard, in versions manufactured with EN 1092-1 flanges or ISO threads, connection d1 is female threaded ISO 228. In versions with ASME B16.5 flanges or NPT threads, these connections are female threaded NPT.

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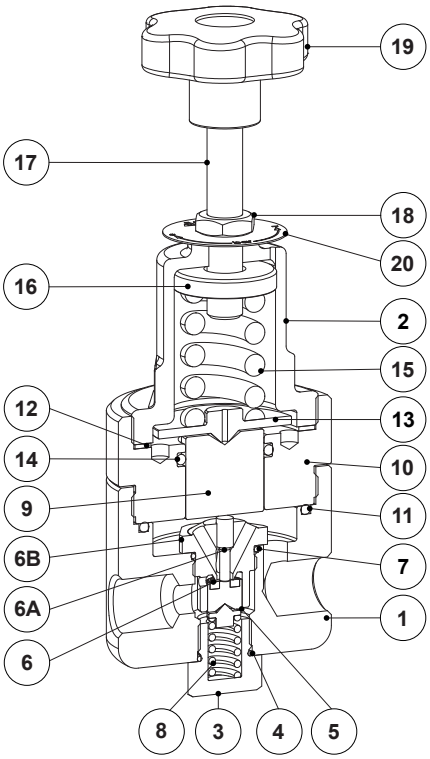
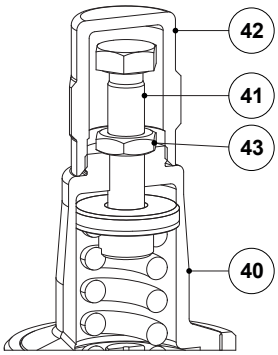
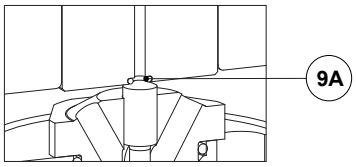




Optional top cap



Optional relieving version

MATERIALS		
POS. No.	**DESIGNATION**	**MATERIAL**
1	Valve body	AISI 316 / 1.4401
2	Cover	A351 CF8M / 1.4408
3	Bottom cover	AISI 303 / 1.4305
4	* O-ring	** NBR
5	* Plug piston	AISI 316 / 1.4401
6	* Valve seal	** NBR; EPDM; PTFE; FPM
6A	Pushrod	AISI 316 / 1.4401
6B	* Valve seat	AISI 316 / 1.4401
7	* O-ring	** NBR
8	Valve spring	AISI 302 / 1.4300
9	Piston	AISI 316 / 1.4401
9A	* O-ring	** NBR
10	Piston sleeve	AISI 316 / 1.4401
11	* O-ring	** NBR
12	Gasket	Aluminium
13	Spring plate	AISI 316 / 1.4401
14	* O-ring	** NBR
15	* Adjustment spring	AISI 302 / 1.4300
16	Top spring plate	Brass
17	Adjustment stem	AISI 304 / 1.4301
18	Lock nut	Stainless steel A2
19	Adjustment knob	Nylon
20	Spring Identification plate	Aluminium
40	Cover	AISI 316L / 1.4404
41	Adjustment screw	Stainless steel A2-70
42	Top cap	AISI 316L / 1.4404
43	Locknut	Stainless steel A2

* Available spare parts. ** Others on request.
Remark: All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.

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ORDERING CODES PRV41SS

VALVE MODEL	R41	.	5	W	N	F			.	B	08	
PRV41SS – Piston sensing pressure reducing valve	R41											
REGULATING RANGE												
No. 5 – 3 to 30 bar			5									
No. 6 – 5 to 50 bar			6									
No. 7 – 20 to 200 bar			7									
APPLICATION												
Water				W								
Gases				G								
Oxygen (degreased)				O								
VALVE SEALING (a)												
NBR					N							
EPDM					E							
PTFE					T							
FPM					V							
MAXIMUM INLET PRESSURE												
220 bar						F						
GAUGE CONNECTIONS												
Without gauge connections							(1)					
Threaded gauge connection on the left side (relative to flow direction) – downstream pressure – ISO 228 G 1/4"							4					
Threaded gauge connection on the right side (relative to flow direction) – downstream pressure – ISO 228 G 1/4"							3					
Threaded gauge connections on both sides – downstream pressure – ISO 228 G 1/4"							2					
TOP CAP AND RELIEVING												
Non-relieving								(1)				
Relieving (only for non-dangerous gases)								R				
Non-relieving with top cap (adjustment screw with cover)								T				
Relieving with top cap (adjustment screw with cover, only for non-dangerous gases)								V				
PIPE CONNECTIONS												
Female threaded ISO 7 Rp (non-standard)										A		
Female threaded ISO 228										B		
Female threaded NPT ASME B1.20.1										C		
Flanged EN 1092-1 PN 40										N		
Flanged EN 1092-1 PN 100										P		
Flanged EN 1092-1 PN 250										R		
Flanged ASME B16.5 Class 150										U		
Flanged ASME B16.5 Class 300										V		
Flanged ASME B16.5 Class 600										W		
SIZE												
1/4"											08	
3/8"											10	
1/2" or DN 15											15	
3/4" or DN 20											20	
SPECIAL CONSTRUCTION / ADDITIONAL OPTIONS												
A full description must to be provided and validated in case of a non-standard construction												E

(1) Omitted if a standard valve is requested.
(a) Valve seal only. Remaining seals on request.

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