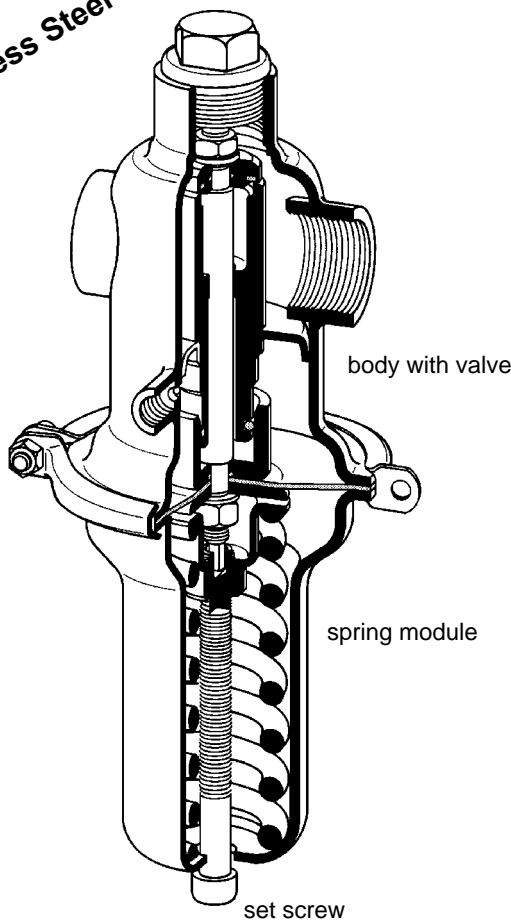


PRESSURE REDUCING VALVES 652



for steam, liquids and gases up to 365 °F
balanced valve with high flow rates and
low leakage depending on soft seal, also with steam

Stainless Steel



Technical Data

Connection	1/2 - 2" NPT 1/2 - 2" ANSI
Inlet Pressure	up to 580 psi
Outlet Pressure	0.3 - 175 psi in 7 adjusting ranges
C _v -Value	4.6 - 21 US gall/min.
Tightness	ANSI class VI
Sense line	yes

Description

Mankenberg self acting pressure reducing valves are simple basic regulators that provide precision control and are easy to install and maintain. They control the pressure at the outlet side without use of any external electrical or pneumatic actuators.

Pressure reducing valve 652 is a balanced, diaphragm-controlled, spring-loaded proportional regulator, as good for steam as for liquids and gas. Depending on the soft seal it has a very low leakage rate, also with steam. It has a sense line connection. During installation a sense line **MUST** be installed.

This valve is made of deep-drawn stainless steel and feature excellent corrosion resistance. It is less heavy than conventional casted valves and mostly support brackets are not necessary.

The spring module including the cover, spring, set screw, diaphragm and internals is fastened with 2 screws at the clamp for easy handling. Changing the diaphragm or the complete spring module for another pressure range is very easy and done without special tools or training. The valve remains in place in the line even for maintenance. Adjusting the set pressure does not change the height of the unit.

The spring keeps the valve in full open position when the pipeline is depressurized. Under pressure the medium flows from the inlet through the valve seat to the outlet and acts on the spring module via the sense line. As the outlet pressure rises above the set pressure, the valve orifice is reduced restricting the flow. As the outlet pressure drops the valve orifice becomes larger increasing flow. The pressure setting is adjusted by turning the set screw to change the spring tension.

OPTIONS

- Manometer connection.
- Internal sense line.
- Cooling section for steam temperatures up to 430°F
- For toxic or hazardous applications, use a spring cap with the set -screw sealing fitted with a leakage line connection. During installation a leakage line **MUST** be installed.
- Different materials for gaskets and diaphragms are available for comparability with your product. Please ask Mankenberg if you have a problematic medium.
- Special designs are available to suit your specifications. Please inquire.
- Guideline for selection, installation and operation "What you should know, Notes of Safety etc." **MUST** be followed.

Mankenberg reserves the right to change specifications without notice.

C _v -values [US gall/min]						
Body Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
C _v -value	4.6	5.8	7	14	18	21

Adjusting Ranges [psi]						
0.3 - 1.7	1.5 - 7	4 - 16	12 - 36	30 - 75	60 - 120	90 - 175

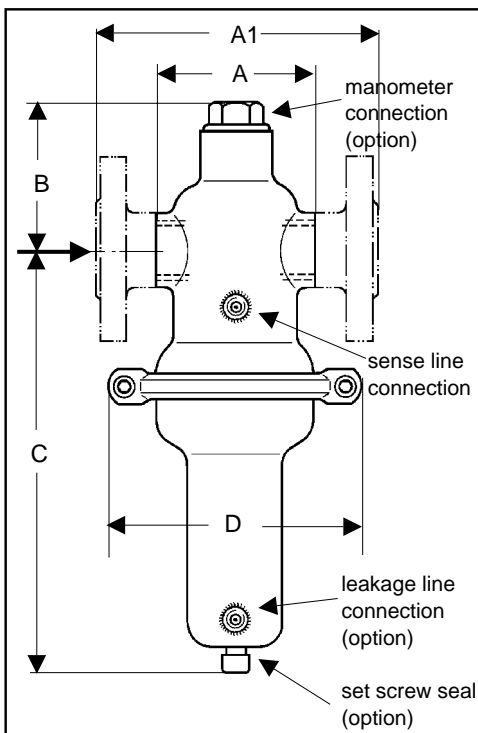
Max. Pressure Ration (max. p ₁ /p ₂)		
Adjusting ranges [psi]	Body Size	
	1/2 - 1"	1 1/4 - 2"
0.3 - 1.7	80	50
1.5 - 7	40	25
4 - 16	30	18
12 - 175	20	12

PRESSURE REDUCING VALVES 652



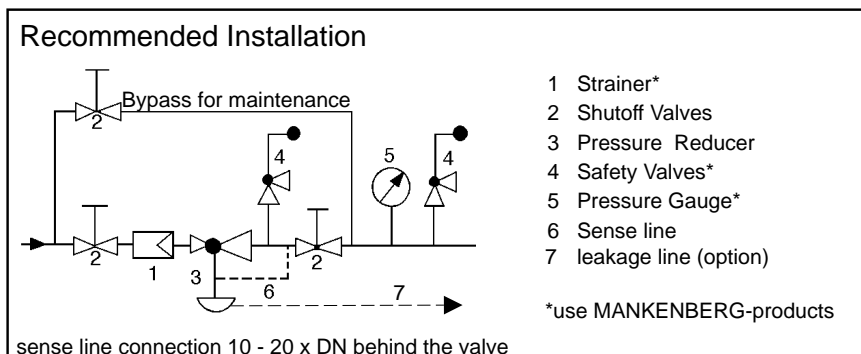
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Materials		
Temperature	265 °F	375 °F
Body	CrNiMo-steel	
Spring Cap	CrNiMo-steel	
Internals	CrNi-steel	
Spring	CrNi-steel	
Valve Seal	FXM, EPDM, FPM	FXM, PTFE
Diaphragm	EPDM, FPM	EPDM
Protection Film	PTFE (option)	



Adjusting ranges [psi]		Body Size (DN) NPT						Body Size (DN) ANSI 150					
Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
all ranges	A/A ₁	5.6	5.9	5.6	7.8	8.4	10	5.1	5.9	6.3	7.1	7.9	9.1
	B	3	3	3	3,5	3,5	3,5	3	3	3	3	3	3
0,3 - 1,7	C	12											
	D	14,2											
1,5 - 7	C	12											
	D	10,5											
4 - 16	C	12											
	D	8											
12 - 75	C	9,25											
	D	5,5											
60 - 175	C	9,25											
	D	5,5											

Weight [pound]				
Adjusting Range [psi]	Body Size (DN) NPT		Body Size (DN) ANSI 150	
	1/2 - 1"	1 1/4 - 2"	1/2 - 1"	1 1/4 - 2"
0,3 - 1,7	30	32	34	41
1,5 - 7	15	17,5	20	26,5
4 - 16	13	15	17,5	24,5
12 - 175	6,5	9	11	17,5



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 Special designs are available to suit your specifications.