

Model 441-S Low Pressure Regulators

THE GAS INDUSTRY



 **SENSUS**

441-S Low Pressure Regulators

Versatile, Dependable, Accurate, Fast

The Sensus Model 441-S is a balanced valve, spring type gas pressure regulator. It is a general purpose unit that is manufactured in a selection of pipe sizes and inner valve sizes. It is extensively used and has proven itself in many different kinds of distribution and industrial applications.

Simple, basic design has been combined with sturdy construction to make it exceptionally dependable. It also includes unique features which make it easy to adjust and to service.

Large, flexible diaphragms combined with accurately calibrated springs enable this regulator to produce precise pressure control while maintaining a high level of sensitivity and stability. The various diaphragm and spring combinations are given below. The use of a large selection of springs with restricted adjustment ranges is one of the reasons for its outstanding performance.

The 441-S is a regulator which responds quickly. It is fast, and this, plus its dependability and accuracy, make it an excellent choice for monitoring as well as other applications where speed is significant.

The 441-S is designed for top performance on any of a wide variety of gases. It is used most extensively for natural gas. However, it is equally effective on air, propane, propane-air mixtures, nitrogen, dry CO and others.

This bulletin has been arranged to include information on the Model 441-S which seems to be most generally used. If other information or data is needed, or if you have an unusual regulator application of any kind, please contact your Sensus Sales Office

Spring Ranges

Spring and Diaphragm Combinations

Spring Color	Diaphragm Size—Inside Diameter					
	20"	18"	16"	14"	12"	10"
Aluminum	4½" to 6" w.c.	4¼" to 4¾" w.c.	5¼" to 7" w.c.	7" to 10½" w.c.	8½" to 13" w.c.	
Green	4¾" to 7" w.c.	4¾" to 6½" w.c.	7" to 10½" w.c.	8½" to 12" w.c.	10½" to 17" w.c.	
Yellow	5¼" to 8½" w.c.	6" to 10½" w.c.	8½" to 15½" w.c.	10½" to 17" w.c.	12" to 23" w.c.	
Gray	8¼" to 13" w.c.	10½" to 17" w.c.	14" w.c. to 1 psi	17" w.c. to 1¼ psi	21" w.c. to 1½ psi	1¼ to 2 psi
Blue	9½" to 20" w.c.	16½" to 21" w.c.	21" w.c. to 1¾ psi	21" w.c. to 2 psi	1¼ to 2½ psi	1½ to 3¼ psi
Red				1½ to 3¼ psi	1¾ to 4 psi	2½ to 6 psi

Springs are colored for identification. When shipped, the regulator is equipped with the lightest spring suitable for the maximum outlet pressure specified on order.

If outlet pressure conditions change, replace spring according

to above table for best operation. For best performance use the largest size diaphragm for the spring and pipe size selected.

For pressures below 4" w.c. install the Model 441-S upside down.

Maximum Inlet Pressure—All Models	Regulator Body Type	441 Body Materials	Maximum Working Pressure of Body	Maximum Inlet Pressure
	Screwed End (2" Pipe Size Only)	CAST IRON (ASTM A126-71 Class B)	250 psi	100 psi
	Flanged ANSI 125 lb. FF	CAST IRON (ASTM A126-71 Class B)	175 psi	
	Flanged ANSI 250 lb. RF	DUCTILE IRON (ASTM A395-71 gr 60-40-18)	575 psi	
	Flanged ANSI 300 lb. RF	CAST STEEL (ASTM A216-70a gr WCB)	720 psi	

Pipe Sizes

Model 441-S		
2"	3"	4"

Temperature Limits

The 441-S Regulator may be used for flowing gas temperatures from -20°F to 150°F.

Buried Service

The 441-S Regulator is not recommended for buried service.

**441-S Low Pressure
Regulator**

**Heavy Duty
Construction**

Weather-proof
Watertight
For Indoor
or Outdoor
Installations

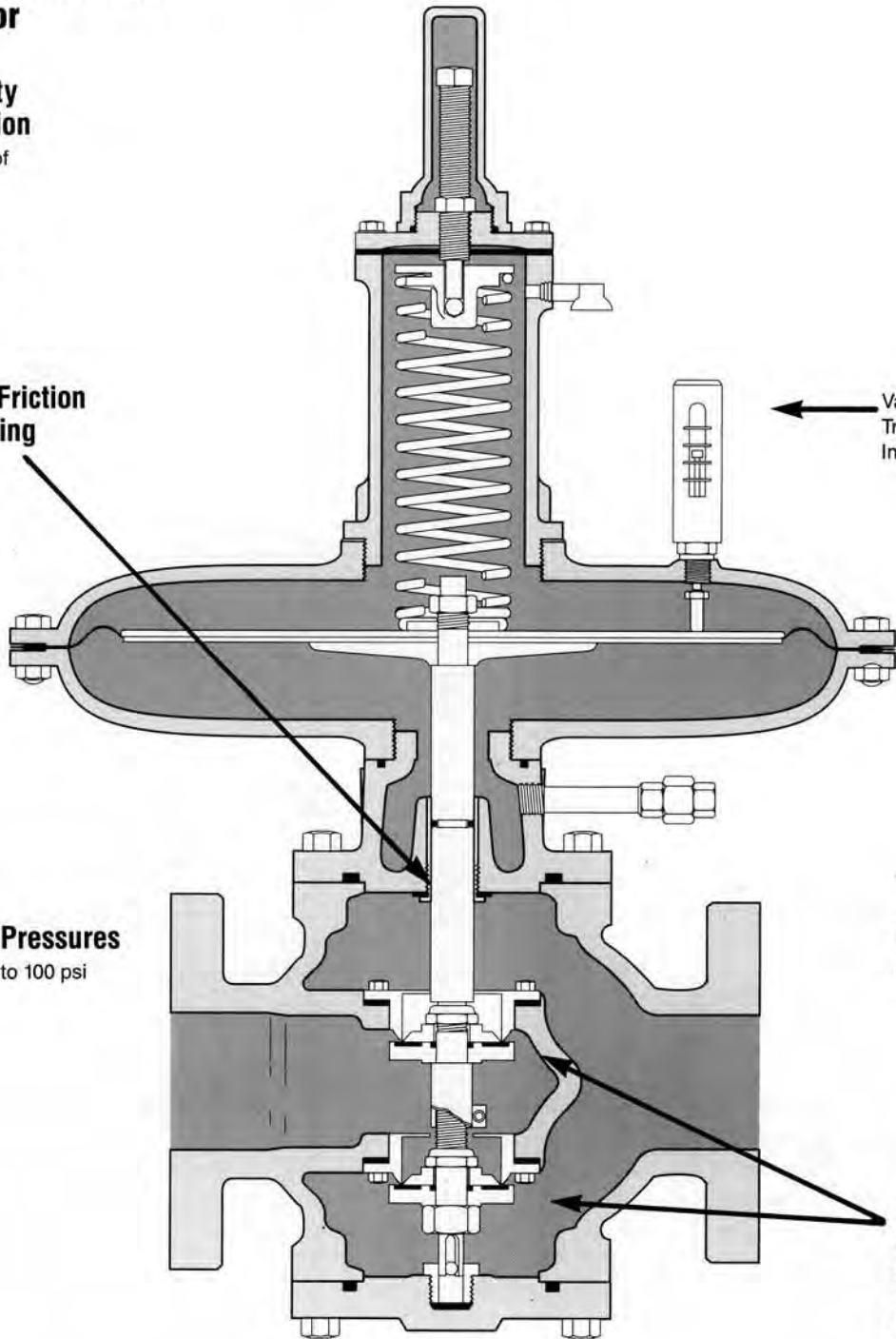
**Anti-Friction
Bushing**

← **Valve
Travel
Indicator**

Inlet Pressures
in w.c. to 100 psi

Outlet Pressures
in w.c. to 6 psi

Balanced Valve
Double Seat
Soft Seats
also available—
Reduced Size Valves
V-Port Valves



Model 441-S Low Pressure Regulators Capacity Tables

Capacity in 1000 SCFH of Natural Gas (0.6 Specific Gravity—14.65 psia—60°F)

Inlet Pressure psi	Outlet Pressure psi	2" 441-S		3" 441-S			4" 441-S		
		1 3/4" Valve	1 1/2" Reduced Valve	2 1/8" Valve	1 3/4" Reduced Valve	1 1/2" Reduced Valve	3" Valve	2 1/8" Reduced Valve	1 3/4" Reduced Valve
7" w.c.	4" w.c.	6.8	5.3	11.1	8.2	5.3	22.1	11.1	6.7
14" w.c.	4" w.c.	12.3	9.7	20.1	15.0	9.7	40.2	20.1	12.3
	7" w.c.	10.3	8.1	16.8	12.6	8.1	33.7	16.8	10.3
1	4" w.c.	19.0	14.9	31.0	23.2	14.9	62.1	31.0	18.9
	7" w.c.	17.9	14.1	29.3	21.8	14.1	58.5	29.3	17.8
	14" w.c.	14.8	11.6	24.2	18.1	11.6	48.4	24.2	14.8
2	4" w.c.	28.3	22.2	46.1	34.4	22.2	92.2	46.1	28.1
	7" w.c.	27.2	21.3	44.4	33.1	21.3	88.7	44.4	27.1
	14" w.c.	25.6	20.0	41.7	31.1	20.0	83.3	41.7	25.4
	1 psi	21.2	16.6	34.6	25.8	16.6	69.1	34.6	21.1
3	4" w.c.	34.8	27.3	56.8	42.4	27.3	113	56.8	34.6
	7" w.c.	34.3	26.9	55.9	41.7	26.9	111	55.9	34.1
	14" w.c.	33.2	26.0	54.1	40.4	26.0	108	54.1	33.0
	1 psi	29.9	23.4	48.8	36.4	23.4	97.5	48.8	29.8
	2 psi	21.8	17.0	35.5	26.5	17.0	70.9	35.5	21.6
4	4" w.c.	40.8	32.0	66.6	49.7	32.0	133	66.6	40.6
	7" w.c.	40.3	31.6	65.7	49.0	31.6	131	65.7	40.1
	14" w.c.	39.2	30.7	63.9	47.7	30.7	127	63.9	39.0
	1 psi	37.0	29.0	60.3	45.0	29.0	120	60.3	36.8
	2 psi	31.0	24.3	50.6	37.8	24.3	101	50.6	30.9
	3 psi	22.9	17.9	37.3	27.8	17.9	74.5	37.3	22.7
5	4" w.c.	45.7	35.8	74.6	55.7	35.8	149	74.6	45.5
	7" w.c.	45.2	35.4	73.7	55.0	35.4	147	73.7	44.9
	14" w.c.	44.7	35.0	72.8	54.3	35.0	145	72.8	44.4
	1 psi	42.5	33.3	69.2	51.7	33.3	138	69.2	42.2
	2 psi	38.1	29.9	62.1	46.4	29.9	124	62.1	37.9
	3 psi	32.1	25.2	52.4	39.1	25.2	104	52.4	31.9
	4 psi	23.4	18.3	38.1	28.5	18.3	76.2	38.1	23.3
6	4-7" w.c.	49.6	38.8	80.8	60.3	38.8	161	80.8	49.3
	14" w.c.	49.0	38.4	79.9	59.6	38.4	159	79.9	48.7
	1 psi	47.9	37.5	78.1	58.3	37.5	156	78.1	47.7
	2 psi	44.1	34.5	71.9	53.7	34.5	143	71.9	43.9
	3 psi	39.2	30.7	63.9	47.7	30.7	127	63.9	39.0
	4 psi	33.2	26.0	54.1	40.4	26.0	108	54.1	33.0
	5 psi	23.9	18.7	39.0	29.1	18.7	78.0	39.0	23.8
8	4-7" w.c.	57.7	45.2	94.1	70.2	45.2	188	94.1	57.4
	14" w.c.	57.2	44.8	93.2	69.6	44.8	186	93.2	56.9
	1 psi	56.6	44.4	92.3	68.9	44.4	184	92.3	56.3
	2 psi	53.9	42.2	87.9	65.6	42.2	175	87.9	53.6
	3 psi	50.6	39.7	82.5	61.6	39.7	165	82.5	50.4
	4 psi	46.8	36.7	76.3	57.0	36.7	152	76.3	46.6
	5 psi	41.4	32.4	67.4	50.3	32.4	134	67.4	41.2
	6 psi	34.8	27.3	56.8	42.4	27.3	113	56.8	34.6
10	7" w.c.	64.8	50.8	105	78.9	50.8	211	105	64.5
	14" w.c.	64.3	50.3	104	78.2	50.3	209	104	63.9
	1 psi	63.7	49.9	103	77.5	49.9	207	103	63.4
	2 psi	62.6	49.1	102	76.2	49.1	204	102	62.3

Note: The performance data on pages 4 and 5 is based on normal testing at 70°F flowing temperature. Changes in performance can occur at extreme low flowing temperatures.

Inlet Pressure psi	Outlet Pressure psi	2" 441-S		3" 441-S			4" 441-S		
		1 1/4" Valve	1 1/2" Reduced Valve	2 1/4" Valve	1 3/4" Reduced Valve	1 1/2" Reduced Valve	3" Valve	2 1/4" Reduced Valve	1 3/4" Reduced Valve
10	3 psi	60.5	47.4	98.5	73.6	47.4	197	98.5	60.1
	4 psi	57.2	44.8	93.2	69.6	44.8	186	93.2	56.9
	6 psi	49.0	38.4	79.9	59.6	38.4	159	79.9	48.7
12	7" w.c.	71.4	55.9	116	86.8	55.9	232	116	71.0
	14" w.c.	70.8	55.5	115	86.2	55.5	230	115	70.4
	1 psi	70.3	55.0	114	85.5	55.0	228	114	69.9
	2 psi	69.7	54.6	113	84.8	54.6	227	113	69.3
	3 psi	68.6	53.8	111	83.5	53.8	223	111	68.3
	4 psi	66.5	52.1	108	80.8	52.1	216	108	66.1
	6 psi	60.5	47.4	98.5	73.6	47.4	197	98.5	60.1
15	1 psi or less	80.1	62.7	130	97.4	62.7	260	130	79.6
	2 psi	79.5	62.3	129	96.8	62.3	259	129	79.1
	3 psi	79.0	61.9	128	96.1	61.9	257	128	78.6
	4 psi	77.9	61.0	127	94.8	61.0	253	127	77.5
	6 psi	74.1	58.0	120	90.1	58.0	241	120	73.7
20	4 psi or less	93.7	73.4	152	114	73.4	305	152	93.2
	6 psi	92.6	72.6	151	112	72.6	301	151	92.1
25	6 psi or less	108	84.5	175	131	84.5	351	175	107
30		121	94.8	197	147	94.8	393	197	120
40		148	116	241	180	116	482	241	147
50		175	137	286	213	137	571	286	174
60		202	158	330	246	158	660	330	201
80		257	201	419	313	201	837	419	255
100		311	244	508	379	244	1014	508	310
"K" Factors Standard Valves		5450	4270	8880	6630	4270	17740	8880	5420
"K" Factors V-Port Valves		5260	4160	8440	6390	4160	13850	8440	5260
For V-Port Valves— Multiply Table Values by		.965	.974	.950	.964	.974	.781	.950	.970

Size each regulator on the basis of the **minimum expected inlet pressure** and the **maximum required outlet pressure**.

For smaller capacities see Model 461-S (Bulletin R 1330).

Outlet pressure ranges and diaphragm sizes are shown in the table "Spring Ranges" on page 2.

Other Features

Simple Design—dependable regulation—trouble free operation—fast response.

Standard Face to Face Dimensions

Standardized "441" Bodies & Inner Valve Assemblies—easy maintenance—parts are

interchangeable with other 441 models.

Simplified Valve Adjustment—easy to adjust for tight lock-up—accurate.

Molded Soft Seats—positive tight shut-off—will not blow out.

Sensitive Diaphragms—large areas give accurate regulation.

O-Ring Stem Seal—with removable anti-friction bushing.

Bushing Guided Inner Valve—accurate stem alignment and valve seating.

Side Inspection Plates—both sides of body—quickly removable.

O-Ring Body Seals—eliminate gaskets on upper and lower body openings and side inspection plates.

Self-Aligning Spring Adjustment—color coded springs.

Flanged Removable Seats (Orifices)—easily changed—no special tools needed.

Variations

Monitoring

The 441-S makes an excellent monitor; a standby regulator which provides over-pressure protection by assuming control if a failure in the operating regulator causes outlet pressure to exceed the set point.

For service of this kind the 441-S does not require any changes or modifications. It is merely installed in series with the operating regulator and set for a somewhat higher outlet pressure.

In this way it is fully connected into the system but remains open so it will not cause any obstruction or interfere with normal operation. At the same time it is fully operable and ready to take control if an emergency calls it into action.

The fast response of the 441-S means that it will take control quickly where necessary and its outstanding performance means that it will provide excellent standby regulation.

The downstream control lines for both the operating regulator and monitor are connected into the system downstream from both. However, for maximum protection, these control lines should be entirely separate from each other including their connections into the system.

The 441-S can be used to monitor another 441-S or other types of regulators. Because of its simplicity and dependability, it is often used for monitoring pilot operated regulators.

Where a 441-S is used to monitor a regulator of the same pipe size and having an identical inner valve, (another 441-S, a 441-VPC, etc.) the **total maximum capacity** through both can be figured at 70% of the capacity of one of them alone. This applies with the monitor located in either the upstream or downstream position.

Zero Governor

The Model 441-S is often used for zero governor service.

For maximum accuracy and sensitivity it is used just as it is, but installed upside down. In this position it achieves a "dead weight" operating action from the weight of the moving parts. The spring is used to counterbalance this weight and adjusted to the exact zero pressure setting required.

It can also be supplied with an extra spring for counterbalancing the moving parts and thus installed right side up. With this arrangement accuracy is reduced slightly because of the additional spring effect.

With either arrangement, the 441-S will provide excellent zero governor performance.

Differential Regulation

For differential regulation the 441-S is arranged to receive a pressure signal on each side of the diaphragm.

The differential is taken by applying one of the pressures through the regular downstream control line connection and applying the other pressure to the opposite side of the diaphragm through a 1/4" NPT connection in the top housing. The difference between the two pressures is the differential which the diaphragm senses.

For differentials greater than 4" w.c. the Model 441-S is installed

in the regular upright position. The spring and diaphragm are selected from the table on page 2, using the table pressures as differentials. The exact differential desired is set with the adjustment screw.

For differentials less than 4" w.c., the 441-S is installed upside down or provided with a counterbalancing spring, as described under "Zero Governor."

Relief Valves and Back Pressure Valves

For those applications which require a higher degree of accuracy and sensitivity than is possible with standard poppet type reliefs, use the Model 441-SR.

Essentially, it is a regulator arranged to provide inlet pressure control. When operating as a relief valve it limits inlet pressure to a set maximum. At pressures below this, it remains closed. If the pressure should attempt to exceed this, it opens and bleeds off the excess.

As a back pressure valve, it prevents gas from exiting from a system until the system pressure reaches the set point. At set

point it begins to open and then regulates the discharge so as to hold the system at the set point.

The 441-SR is the same as the 441-S except that the inner valve is reversed, the body is turned around, and the control line is arranged for connection to the inlet side (upstream).

The Model 441-SR offers these advantages: (1) accurate setting and control at low relieving pressure because of large sensitive diaphragm; (2) tight shutoff without leakage due to soft-seat valve construction; (3) large relieving capacity due to large size double valves.

Other Large Capacity Regulators in the "441" Family

Model 441-57S "Roll-Out" diaphragm regulators for outlets of 3 to 100 psi. (Bulletin R 1360).

Model 441-X57 high pressure regulators with "roll-out" diaphragm and standby piston, for outlets from 75 to 100 psi. (Bulletin R 1361).

Model 441-VPC pilot operated regulators for low, medium, and high pressures. (Bulletin R 1370).

Caution: It is the user's responsibility to assure that all regulator vents and/or vent lines exhaust to a non-hazardous location away from **any potential** sources of ignition. Refer to Sensus Bulletin RM-1350 for more detailed information.

Maximum Emergency Pressure

The maximum pressure the regulator inlet may be subjected to under abnormal conditions without causing damage to the regulator is 125 psi.

The maximum pressure the regulator outlet may be subjected to without causing damage to the internal parts of the regulator is:

10" Diaphragm	set-point + 4 psi
12" Diaphragm	set-point + 3 psi
14" Diaphragm	set-point + 2 psi
16" Diaphragm	set-point + 1 psi
18" Diaphragm	set-point + 1 psi
20" Diaphragm	set-point + 1 psi

Set-point is defined as the outlet pressure a regulator is adjusted to deliver.

If any of the above pressure limits are exceeded, the regulator must be taken out of service and inspected. Damaged or otherwise unsatisfactory parts must be repaired or replaced.

The maximum pressure that can be safely contained by the diaphragm case is:

10" Diaphragm	15 psi
12" Diaphragm	10 psi
14" Diaphragm	10 psi
16" Diaphragm	5 psi
18" Diaphragm	5 psi
20" Diaphragm	5 psi

Safely contained means no leakage as well as no bursting. Before using any of the above data, make sure this entire section is clearly understood.

Overpressurization Protection

Protect the downstream piping system and the regulator's low pressure chambers against overpressurization due to possible regulator malfunction or failure to achieve

complete lockup. The allowable outlet pressure is the lowest of the maximum pressures permitted by federal codes, state codes, Sensus Bulletin RDS-1498, or other

applicable standards. The method of protection can be a relief valve, monitor regulator, shutoff device, or similar mechanism.

Capacities at Other Pressures

Capacity for pressure reductions not listed in the table can be calculated with the following formulae:

$$1. Q = K \sqrt{P_o (P_1 - P_o)}$$

$$2. Q = \frac{K P_1}{2}$$

Q = maximum capacity of the regulator (in SCFH of 0.6 specific gravity natural gas).

K = the "K" factor, the regulator constant (from bottom of capacity table, page 5).

P₁ = **absolute** inlet pressure (psia).

P_o = **absolute** outlet pressure (psia).

Use formula 1. when $\frac{P_1}{P_o}$ is less than 1.894.

Use formula 2. when $\frac{P_1}{P_o}$ is greater than 1.894.

Other Gases

Model 441-S Regulators are mainly used on natural gas. However, they perform equally well on LP gas, nitrogen, dry CO₂, air and others.

OTHER GASES	CORRECTION FACTOR
Air (Specific Gravity 1.0)	0.77
Propane (Specific Gravity 1.53)	0.63
1350 BTU Propane-Air Mix (1.20)	0.71
Nitrogen (Specific Gravity 0.97)	0.79
Dry Carbon Dioxide (Specific Gravity 1.52)	0.63
For other noncorrosive gases: CORRECTION FACTOR =	$\sqrt{\frac{0.6}{\text{Specific Gravity of the Gas}}}$

For use with gases not listed above, please contact your Sensus representative or Industrial Distributor for recommendations

General Information

Materials of Construction

Diaphragm Housing, Spring Cage	Cast Iron (ASTM A126-71 Class B)
Upper and Lower Diaphragm Plates	Steel
Diaphragm	Buna-N with Nylon Reinforcement
Diaphragm Connecting Stem & Anti-Friction Bushing	Stainless Steel
Removable Seats (Orifices)	Cast Iron or Stainless Steel
Valve Stems	Brass or Stainless Steel
Soft Seat Valve Material	Buna-N, molded in holder
Holder for Molded Valve	Steel
Valve Retainer	Cast Iron or Stainless Steel
Bodies and Side Inspection Plates	see table on Page 2
Price List	see RPL 1350
Installation, Maintenance and Parts	see RM 1350

Metrication

Use the following for metric conversions:

$\text{std. metres}^3/\text{hr.} \times 35.31 = \text{std. ft.}^3/\text{hr. (SCFH)}$ $\text{std. ft.}^3/\text{hr. (SCFH)} \times 0.0283 = \text{std. metres}^3/\text{hr.}$
$\text{kilograms/centimeter}^2 \text{ (kg/cm}^2\text{)} \times 14.22 = \text{psi}$ $\text{psi} \times 0.0703 = \text{kilograms/centimeter}^2 \text{ (kg/cm}^2\text{)}$
$\text{kilopascals (kPa)} \times 0.145 = \text{psi}$ $\text{psi} \times 6.90 = \text{kilopascals (kPa)}$
$\text{bars} \times 14.50 = \text{psi}$ $\text{psi} \times .0689 = \text{bars}$
$\text{millimeters water (mm H}_2\text{O)} \times .0394 = \text{in. w.c.}$ $\text{in. w.c.} \times 25.4 = \text{millimeters water (mm H}_2\text{O)}$
$\text{millimeters mercury (mm Hg)} \times 1.868 = \text{in. w.c.}$ $\text{in. w.c.} \times 0.535 = \text{millimeters mercury (mm Hg)}$

How to Order

- Specify:
- Pipe size and **Model 441-S**.
 - Piping connections and body material (see table on Page 2)
 - Outlet pressure and spring (see table on page 2)
 - Diaphragm size
 - Inlet pressure (also maximum and minimum, if available)
 - Capacity required (SCFH)
 - Kind of gas (natural gas, propane, etc.)
 - Trim (standard or stainless steel)
 - If a reduced valve is required, specify size.

Caution: Turn gas on slowly. If an outlet stop valve is used, it should be opened first. Do not overload the diaphragm with a sudden surge of inlet pressure. Monitor the outlet pressure during start-up to prevent an outlet pressure overload. **Refer to RM-1350 for more detailed start-up procedures.**

Typical Installation



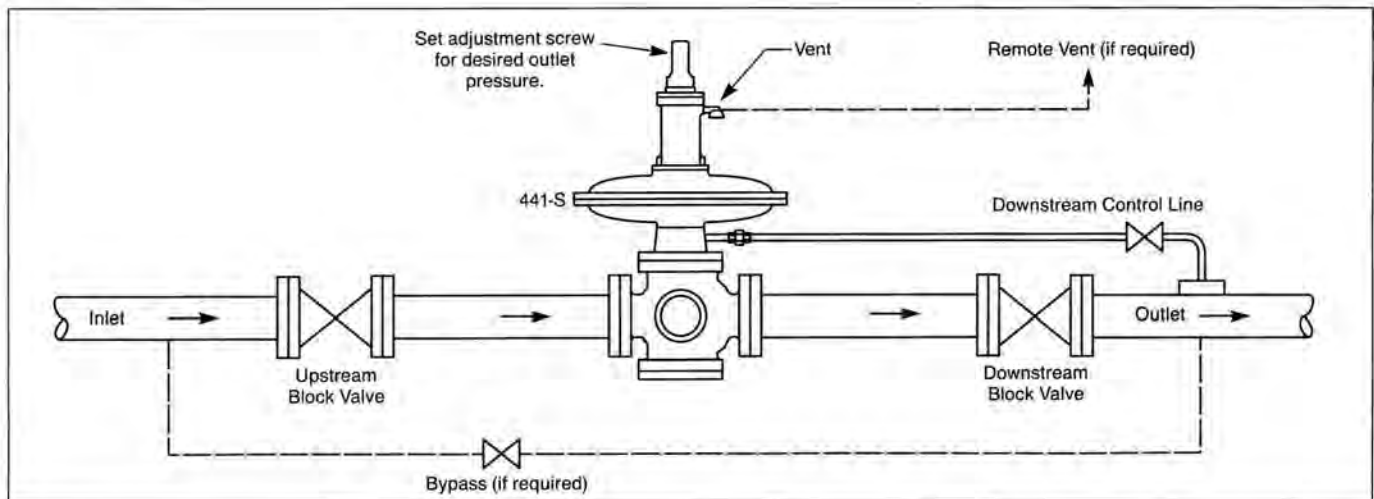
The compact arrangement of the 441-S makes it an easy regulator to install. The sketch below shows a typical arrangement.

Particular attention should be given to the downstream control line. A regulator will work to deliver the pressure, for which it is adjusted, at the point in the system where the control line is connected. The connection, generally, should be at least eight pipe diameters away from the regulator and should be clean and smooth, free of rough edges, welding icicles, etc. It should be located in as straight a run of pipe as possible to avoid excess turbulence, and where downstream piping increases in size near the regulator, it is generally preferable to locate the connection in the larger size.

Inlet piping should be adequately purged to remove dirt and debris which could damage the regulator or impair its operation. If purging is not feasible, a strainer should be installed ahead of the regulator.

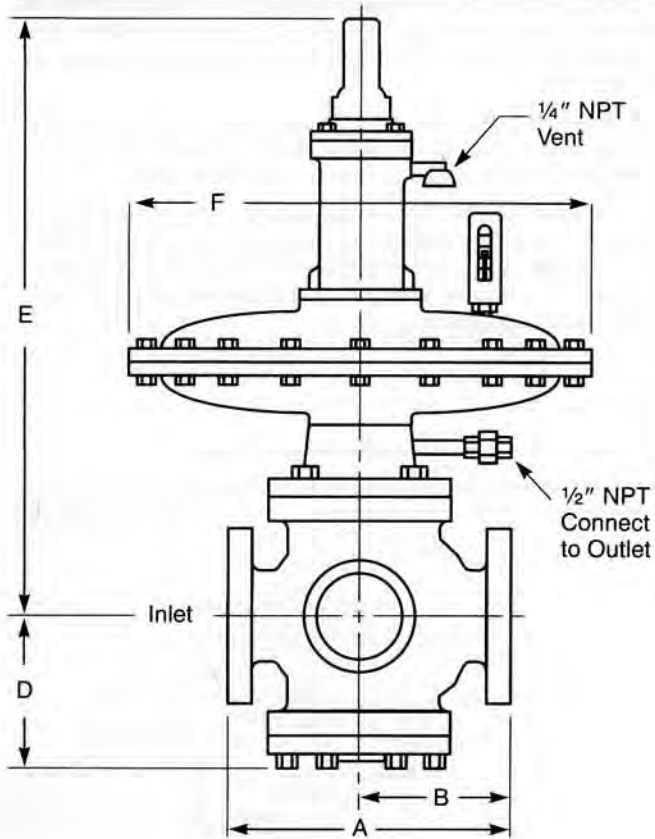
To place the regulator in service, first open the downstream control line valve, then slowly open the downstream block valve, and finally open the upstream block valve very slowly.

The outlet pressure setting is made with the adjustment screw. Clockwise rotation increases the pressure, and counterclockwise decreases it. Do not adjust when there is no flow. After adjustment is complete, the locknut should be tightened firmly and the cover cap replaced.



Periodic Inspection: Regulators are pressure control devices with numerous moving parts subject to wear that is dependent upon particular operating conditions. To assure continuous satisfactory operation, a periodic inspection schedule must be adhered to with the frequency of inspection determined by the severity of service and applicable laws and regulations. **See Bulletin RM-1350 for field service instructions.**

Dimensions



Regulator Body Type		Pipe Size			
		Screwed 2"	Flanged ANSI		
			2"	3"	4"
125 lb. Cast Iron	A	10	10	11 ³ / ₄	13 ⁷ / ₈
	B	5 ⁵ / ₁₆	5 ⁵ / ₁₆	6 ¹ / ₈	7 ⁵ / ₈
250 lb. Ductile Iron	A	—	10 ¹ / ₂	12 ¹ / ₂	14 ¹ / ₂
	B	—	5 ⁹ / ₁₆	6 ¹ / ₂	7 ¹⁵ / ₁₆
300 lb. Cast Steel	A	—	10 ¹ / ₂	12 ¹ / ₂	14 ¹ / ₂
	B	—	5 ⁹ / ₁₆	6 ¹ / ₂	7 ¹⁵ / ₁₆
	D	6	6	6	9 ¹ / ₂
	E	24	24	24	26
Maximum O.D.	F	19	19	21	23
Shipping Weight	Lbs.	130 to 170	135 to 175	160 to 220	250 to 340

Other Sensus Gas Pressure Regulators



Sensus produces a broad product line of Gas Pressure Regulators which are widely used throughout the natural gas industry. These regulators are also suitable for non-corrosive industrial gas applications such as propane, butane, air

nitrogen, dry CO₂, etc. For additional information on a particular model, please request the indicated bulletin from the local Sensus sales representative.

Multi-Purpose Service Regulators

Model 143-80
Bulletin: R-1301
3/4", 1", 1 1/4" pipe size
Inlet pressures.....to 125 psig
Outlet pressures.....3 1/2" w.c. to 6 psig
Capacity to 2000 CFH
Available with straight-through body.
Also available: internal relief valve and low-pressure cut-off.

Model 043-C
Bulletin: TD-1309
1/2", 3/4", 1", 1 1/4" pipe size
Inlet pressures.....to 125 psig
Outlet pressures.....5" w.c. to 5 psig
Capacity to 4,700 CFH
Available with 90° angle or straight-through body
Available with internal relief valve

Industrial Service Regulators

Models 243-8, 243-12, 243-8HP
Bulletin: R-1306
1 1/4", 1 1/2" and 2" pipe size
Inlet pressures.....to 125 psi
Outlet pressures.....3 1/2" w.c. to 10 psi
Capacity to 25,000 CFH
Also available: internal relief valve, low pressure cut-off external control line, back pressure regulator, relief valve, vacuum regulator and vacuum breaker.

Industrial Field Regulators

For immediate to high pressure applications. Ideal on pipe-line traps servicing plants and buildings. Appropriate for double stage reduction ahead of service regulators, and for high pressure burners and compressed air systems.

Model 046
Bulletin: R-1312
3/4", 1", 1 1/4" pipe size
Inlet pressures.....to 1000 psi
Outlet pressures.....3 to 200 psi
Capacity to 40,000 SCFH
Available with internal relief valve.

Model 141A
Bulletin: R-1311
2" pipe size
Inlet pressures.....to 1500 psi
Outlet pressures.....5 to 400 psi

Pilot Loaded Regulators

For intermediate and high-pressure applications requiring precise pressure reduction with minimal droop. Ideal for standard and high capacity flows on burners, driers, dehydrators and compressor line. Appropriate for fixed factor billing.

Model 243-RPC
Bulletin: R-1343
1 1/4", 1 1/2", and 2" pipe size
Inlet pressures . . . to 150 psi
Outlet pressures . . . 3 1/2" w.c.
to 35 psi
Capacity to 76,000 SCFH

Model 1100
Bulletin: R-1341
Pipe size: 2"
(screwed or flanged)
Inlet pressures . . . to 400 psi
Outlet pressures3" w.c.
to 100 psi
Capacity to 414,000 SCFH

Model 1200
Bulletin: R-1342
Pipe size: 2" (flanged)
Inlet pressures to
1200 psi
Outlet pressures 20 to
600 psi
Capacity to 789,000 SCFH

Sensus also produces Industrial and Combustion Regulators; High Pressure, High Capacity Regulators; and Safety Relief Valves. Detailed information available upon request.



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