

# Gas Pressure Regulator Series 226



PRODUCT INFORMATION

**Serving the Gas Industry  
Worldwide**



ITT Controls

## GAS PRESSURE REGULATOR SERIES 226

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## GAS PRESSURE REGULATOR SERIES 226

Introduction, Application, Features, Technical Data

### Introduction

- The Series 226 is a range of Low Pressure, Direct Acting, diaphragm operated, spring loaded regulators.
- Use with confidence on natural and manufactured gases of non-aggressive nature, including Nitrogen, Carbon Dioxide, Propane, and Butane etc.

### Application

- Designed primarily for control of fuel gas feeds to industrial burners, heater units, boilers and other items of equipment where an accurate, safe and reliable controlled pressure supply is required.

### Features

- Quick Response to Rapid Load Changes
- Installation at any angle
- Wide Operational Pressure Range
- Complies generally with specification BG/PRS 33 & EN88

SIZE RANGE	
Screwed	Flanged
15mm (1/2")	-
20mm (3/4")	-
25mm (1")	-
32mm (1.1\4")	-
40mm (1.1\2")	-
50mm (2")	DN 50
	DN 65
	DN 80
	DN 100
	DN 150
BS21 Rc, RP	PN16: BS EN 1092-2: 1997

SERVICE CONDITIONS			
Size	Max. Inlet	Max. Inlet Pressure	Outlet Pressure Range
1/2", 3/4" & 1"	226 Mk2	500 mbarg	3.7 to 75 mbarg
1\4", 1\2", & 2"	226 Mk3		3.7 to 80 mbarg
DN 50	226 Mk2		3.7 to 80 mbarg
DN 65	226 Mk2		3.7 to 80 mbarg
DN 80	226H Mk2		70 to 150 mbarg
DN 100	226 Mk2		7.5 to 150 mbarg
DN 150	226 Mk2		12.5 to 150 mbarg

Temperature Range: -20°C to +60°C

### Options

- Available with or without Inlet & Outlet Pressure Test Points (sizes 1\4" and above)
- Internally or Externally Impulsed (sizes 1\4" and above)
- Angle Type (1\4", 1\2", 2" screwed)
- Safety Diaphragm (sizes 1\4" and above)
- Fitting of Lead Wire Seal

### Installation

- Any orientation, but moisture or debris must not ingress the vent hole.

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### Spring Selection

SPRING SELECTION								
Outlet Pressure Range (in mbarg)	Spring Colour	Spring Number						
		15, 20 & 25mm Sc	32 & 40mm Sc	50mm Sc	DN 50 FL	DN 65 & DN 80 FL	DN 100 FL	DN 150 FL
3.7 to 7.5	Red	397	-	-	292	545	-	-
3.7 to 10	White	-	1153	1154	-	-	-	-
7.5 to 15	Blue	398	-	-	293	547	-	-
	White/Gold	-	-	-	-	-	409	-
8 to 14	Red	-	1067	1072	-	-	-	-
12 to 25	Green	-	1068	1073	-	-	-	-
12.5 to 25	Self	399	-	-	283	548	-	-
	Black/Gold	-	-	-	-	-	410	-
	Lt. Blue/Dk. Green	-	-	-	-	-	-	419
21 to 35	Blue	-	1069	1074	-	-	-	-
23 to 37	Green	-	-	-	284	549	-	-
	Yellow/Gold	-	-	-	-	-	412	-
	Yellow/Lt. Blue	-	-	-	-	-	-	420
24 to 37	Green	1045	-	-	-	-	-	-
33 to 55	Yellow	-	1070	1075	-	-	-	-
35 to 60	Black	-	-	-	-	550	-	-
	Lt. Green/Brown	-	-	-	-	-	-	430
35 to 75	Yellow	805	-	-	-	-	-	-
35 to 80	Yellow	-	-	-	285	-	-	-
	Brown/Gold	-	-	-	-	-	414	-
50 to 80	Black	-	1071	1076	-	-	-	-
55 to 80	Grey	-	-	-	-	598	-	-
55 to 112	Lt. Green/Grey	-	-	-	-	-	-	431
70 to 112	Brown	-	-	-	-	774*	-	-
70 to 150	Grey/Maroon	-	-	-	-	-	407	-
100 to 150	Orange	-	-	-	-	775*	-	-
	Self	-	-	-	-	-	-	617

\*Applicable to 80mm Series 226H only, connections: Sc=Screwed, FL=Flanged.  
Spring Data based on Spring Housing vertically upwards.

## GAS PRESSURE REGULATOR SERIES 226

### Capacities

SET POINT: 12.5 MBARG									
			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
20mm	226 MK2	Sc	7.5	7.5	4	4	2	1	
25mm	226 MK2	Sc	14	16	7	7	5	2	
32mm	226 MK3	Sc	22	27	27	27	14	8	
40mm	226 MK3	Sc	30	36	36	36	27	16	
50mm	226 MK3	Sc	80	128	260	310	350	450	485
DN 50	226 MK2	FL	80	128	260	310	350	450	485
DN 65	226 MK2	FL	234	234	310	390	475	580	710
DN 80	226 MK2	FL	260	260	350	435	520	650	750
DN 100	226 MK2	FL	390	390	500	650	780	960	1000
DN 150	226 MK2	FL	780	780	1000	1300	1560	1920	2000

SET POINT: 20 MBARG									
			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
20mm	226 MK2	Sc	5.5	8	5	5	5	3	
25mm	226 MK2	Sc	6	11	13	13	9	5	
32mm	226 MK3	Sc	19	32	39	37	30	25	
40mm	226 MK3	Sc	36	70	77	32	60	40	
50mm	226 MK3	Sc	56	126	160	218	260	375	685
DN 50	226 MK2	FL	56	126	160	218	260	375	635
DN 65	226 MK2	FL	120	205	290	335	400	510	750
DN 80	226 MK2	FL	130	300	465	610	720	750	830
DN 100	226 MK2	FL	435	580	700	790	940	1050	1250
DN 150	226 MK2	FL	780	1160	1400	1580	1830	2050	2470

SET POINT: 30 MBARG									
			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
20mm	226 MK2	Sc		8.5	8.5	8.5	6	5	
25mm	226 MK2	Sc		13	17	20	15	10	
32mm	226 MK3	Sc		28	36	36	36	33	
40mm	226 MK3	Sc		65	82	100	113	124	
50mm	226 MK3	Sc		126	178	210	355	440	625
DN 50	226 MK2	FL		126	178	210	355	440	625
DN 65	226 MK2	FL		200	222	315	500	610	780
DN 80	226 MK2	FL		260	650	730	670	830	1040
DN 100	226 MK2	FL		610	760	930	1100	1250	1450
DN 150	226 MK2	FL		1220	1520	1850	2140	2430	2850

## GAS PRESSURE REGULATOR SERIES 226

### Capacities

SET POINT: 45 MBARG			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
32mm	226 MK3	Sc		22	32	36	50	43	
40mm	226 MK3	Sc		43	73	87	108	137	
50mm	226 MK3	Sc		80	97	159	226	375	580
DN 50	226 MK2	FL		80	97	159	226	375	580
DN 65	226 MK2	FL		171	273	286	425	506	820
DN 80	226 MK2	FL		252	433	575	700	900	1200
DN 100	226 MK2	FL		440	730	900	1150	1350	1750
DN 150	226 MK2	FL		870	1440	1800	2220	2700	3500

SET POINT: 50 MBARG			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
32mm	226 MK3	Sc			31	36	56	60	
40mm	226 MK3	Sc			70	92	115	140	
50mm	226 MK3	Sc			114	178	226	380	600
DN 50	226 MK2	FL			114	178	226	380	600
DN 65	226 MK2	FL			245	422	565	860	1080
DN 80	226 MK2	FL			380	550	750	950	1200
DN 100	226 MK2	FL			720	950	1200	1400	1800
DN 150	226 MK2	FL			1440	1900	2350	2680	3600

SET POINT: 60 MBARG			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
32mm	226 MK3	Sc			30	37	58	64	
40mm	226 MK3	Sc			60	95	125	142	
50mm	226 MK3	Sc			126	192	283	400	620
DN 50	226 MK2	FL			126	192	283	400	620
DN 65	226 MK2	FL			282	344	422	685	820
DN 80	226 MK2	FL			295	570	710	800	900
DN 100	226 MK2	FL			640	860	1050	1200	1350
DN 150	226 MK2	FL			1280	1700	2070	2270	2650

## GAS PRESSURE REGULATOR SERIES 226

### Capacities and Correction Factors

SET POINT: 70 MBARG			Capacities in sm <sup>3</sup> /hr (SG 0.6)						
Inlet Pressure mbarg			25	50	75	100	150	200	350
Droop 10%									
32mm	226 MK3	Sc			27	50	62	73	
40mm	226 MK3	Sc			55	90	140	146	
50mm	226 MK3	Sc			97	170	270	425	630
DN 50	226 MK2	FL			97	170	270	425	630
DN 65	226 MK2	FL			198	373	560	910	950
DN 80	226 MK2	FL			235	470	660	955	1000
DN 100	226 MK2	FL			600	850	1100	1350	1450
DN 150	226 MK2	FL			1200	1700	2060	2640	2850

SET POINT: 100 & 150 MBARG			Capacities in sm <sup>3</sup> /hr (SG 0.6)				
Inlet Pressure mbarg			100 mbarg			150 mbarg	
Droop 10%			150	200	350	200	350
DN 65	226H MK2	FL	422	565	1100	424	900
DN 80	226H MK2	FL	550	750	1200	550	1000
DN 100	226 MK2	FL	1050	1150	1750	1250	1800
DN 150	226 MK2	FL	2040	2280	3500	2450	3600

### Correction Factors

The capacities given in the above tables are calculated in terms of natural gas of SG 0.6. To find the equivalent capacities of other gases, multiply the figures given by the appropriate correction factor listed below.

Type of Gas	Specific Gravity	Correction Factor
Air	1.0	0.77
Propane	1.53	0.63
Propane/Air (1350 BthU)	1.2	0.71
Butane	2.0	0.55
Nitrogen	0.97	0.79

**For all other Gases,  
multiply by the following correction factor:**

$$\sqrt{\frac{0.6}{\text{SG of Gas handled}}}$$

## GAS PRESSURE REGULATOR SERIES 226

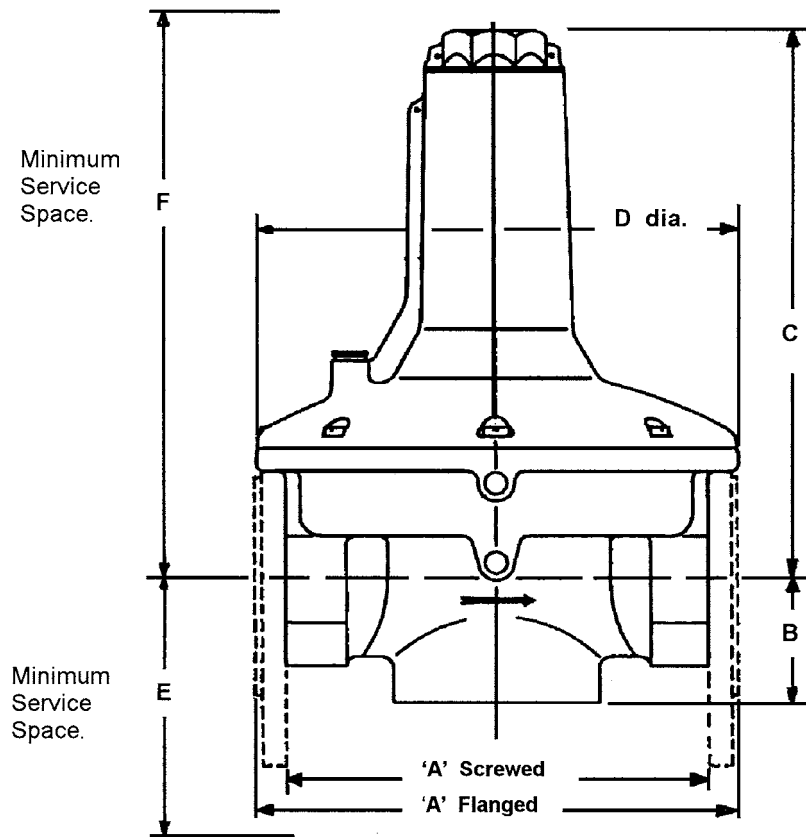
### Materials of Construction

Regulator Size	15, 20 & 25mm Screwed	32, 40 & 50mm Screwed	DN 50 Flanged	DN 65 & DN 80 Flanged	DN 100 & DN 150 Flanged
	226 Mk2	226 Mk3	226 Mk2	226 Mk2	226 Mk2
Body	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM25	Ductile Iron: BS EN 1563 Grade: EN-GJS-400-18
Diaphragm Casing	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM25	Aluminium: BS 1490 LM25
Top Cap	Aluminium: BS 4300 2011TD	Aluminium: BS 1490 LM24	Zinc Die Cast: BS 1004A	Aluminium: BS 1490 LM25	Polypropylene
Bottom Plug/ Cover	Aluminium: BS 4300 2011TD	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM24	Aluminium: BS 1490 LM25	Cast Iron: BS 1452 GR.220
Main Diaphragm	Nitrile	Nitrile	Nitrile	Reinforced Nitrile	Reinforced Nitrile
Balancing Diaphragm	Nitrile	Nitrile	Nitrile	Reinforced Nitrile	Reinforced Nitrile
Main Diaphragm Plates	Carbon Steel: BS 4360 GR 43A Zinc Plated BS1706	Plated Mild Steel	Mild Steel bonded into Diaphragm	Plated Mild Steel	Plated Mild Steel
Spindle	Carbon Steel	Mild Steel, Zinc Plated	Mild Steel with Protective Coating	Mild Steel with Protective Coating	Mild Steel with Protective Coating
Valve Seat	Nitrile	Nitrile	Nitrile	Nitrile	Nitrile
Spring	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
Spring Adjuster	Acetal Hostaform: C32021	Acetal Copolymer	Nylon 11	Nylon 11	Cast Iron: BS 1452 GR.220
Distance Piece	Acetal Hostaform: C32021	Acetal Copolymer	Nylon 11	ABS	ABS
Impulse Tube	Acetal Hostaform: C32021	Acetal Copolymer	Nylon 11	Nylon 11	Nylon 11
'O' Rings	Nitrile	Nitrile	Nitrile	Nitrile	Nitrile
Breather Valve	-	-	-	Polypropylene	Polypropylene
Vent Cap	Polypropylene	Polypropylene	Polypropylene		



## GAS PRESSURE REGULATOR SERIES 226

Dimensions & Weights



DIMENSIONS & WEIGHTS									
SIZE	Type	A	B	C	D	E	F	Wt. Kg's	
15mm	SC	226 Mk2	103	35	90	108	80	140	0.68
20mm	SC	226 Mk2	103	35	90	108	80	140	0.66
25mm	SC	226 Mk2	103	35	90	108	80	140	0.60
32mm	SC	226 Mk3	163.5	55	137.5	170	80	210	1.58
40mm	SC	226 Mk3	163.5	55	137.5	170	80	210	1.58
50mm	SC	226 Mk3	210	61.5	172.5	230	90	270	3.17
DN 50	FL	226 Mk2	210	58	261	213	110	420	5.0
DN 65	FL	226 Mk2	318	102	384	381	240	600	16.4
DN 80	FL	226 Mk2	318	102	384	381	240	600	16.4
DN 100	FL	226 Mk2	369	134	620	451	310	970	63.5
DN 150	FL	226 Mk2	473	194	830	559	435	1270	114.7

All Dimensions in mm, SC = Screwed, FL = Flanged

## GAS PRESSURE REGULATOR SERIES 226

Other Products in the Series 226 Range

RELIEF VALVES - SERIES 226R, HR, VR & HVR			
Size	Model	Max. Inlet Pressure	Relief Pressure Range
3/4" & 1"	226R - Mk4	350 mbarg	15 to 300 mbarg
1 1/4", 1 1/2", & 2"	226R - Mk3 226HR - Mk3	350 mbarg 500 mbarg	11 to 120 mbarg 25 to 350 mbarg
DN 50	226R - Mk2 226HR - Mk2	350 mbarg 500 mbarg	10 to 120 mbarg 10 to 350 mbarg
DN 80	226R - Mk2 226HR - Mk2	200 mbarg 500 mbarg	11 to 70 mbarg 10 to 215 mbarg
1"	226VR - Mk3 226HVR - Mk3	7 barg & 25 barg version available	25 to 550 mbarg 0.5 to 3.5 barg

PILOTS - SERIES 226K, HK & MK			
Size	Model	Max. Inlet Pressure	Outlet Pressure Range
3/4" & 1"	226K 226HK	550 mbarg 550 mbarg	7.5 to 120 mbarg 110 to 350 mbarg
3/4" & 1"	226MK	350 mbarg	7.5 to 120 mbarg

PROFILING PILOT			
Size	Model	Max. Inlet Pressure	Outlet Pressure Range
3/4" & 1"	226DPP	350 mbarg	17 to 55 mbarg