

720 / 727 Pressure Regulator

720 and 727 Pressure Regulators were designed to support inlet pressures up to 28 bar, and regulate outlet pressures between 0.015 bar and 2.5 bar.

727 Model has protection against excess in the outlet regulated pressure and a manual reset blocking system (shut off device).

The connections to pipe can be 1" BSP threaded (NPT upon request) or 1" Flanged (ANSI S150 and ANSI S300), and can be indifferently connected to horizontal or vertical pipes.

Four models of this type are manufacturing, depending on the regulated pressure:

- 727 / 720 - 1: up to 0.08 Bar
 - 727 / 720 - 2: from 0.05 to 0.9 Bar
 - 727 / 720 - 3: from 0.7 to 1.1 Bar
 - 727 / 720 - A : from 1.0 to 2.5 Bar
- All of them support input pressures of up to 28 Bar.



TECHNICAL DATA

CONNECTIONS:

Threaded 1" BSP (1" NPT upon request)

Flanged 1" ANSI S150

Flanged 1" ANSI S300

OPERATING TEMPERATURE: -20 °C to 60

SECURITY LOCK: high pressure closing / low pressure closing (on request)

MATERIALS

MAIN BODY:

Nodular cast iron A536 65/45/12 /ASTM

A-216 WCB Steel

Nodular cast iron A536 65/45/12

Steel ASTM A-216 WCB

ACTUATOR: Aluminum

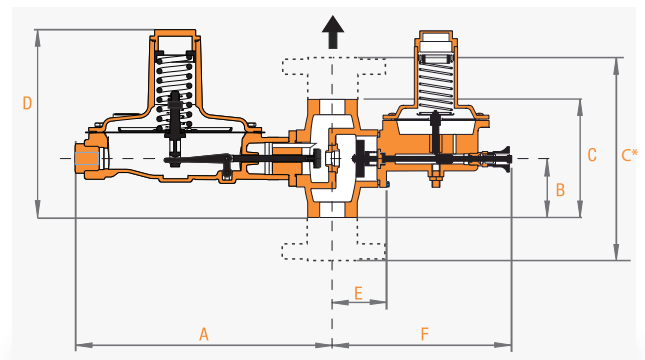
INTERNAL: Brass

DIAPHRAGM AND SHUTTER: Nitrile

Models 720M and 727M operate with a control line (1/4" NPT connection) for monitoring other valves or devices.

DIMENSIONS

CONNECTION STYLE	A	B	C	D	E	F	Weight (kg)	
							720	727
1" Threaded	268	66	130	205	56	183	3.9	4.5
1" Flanged S150	268	92	184*	232	56	183	5.2	5.8
1" Flanged S300	268	66	197*	205	68	195	5.9	6.4



Capacity chart for natural gas

In Nm³/h (specific gravity 0.6 - droop 10%)*



Type 720/727						
Outlet pressure [mbar]	Inlet pressure [bar]	Ø orifices [mm]				
		3,2	4,8	6,4	9,5	12,7
15	0,140	2	2	3	8	10
	0,35	2	2	12	14	18
	0,5	3	3	14	20	24
	1	8	14	20	26	36
	1,5	14	16	24	32	38
	2	16	18	24	36	40
	2,5	20	20	30	38	-
	3,5	22	22	32	38	-
	5	24	24	32	-	-
	7	32	32	38	-	-
10	36	36	38	-	-	
20	0,140	2	2	3	8	10
	0,35	2	2	12	14	18
	0,5	4	6	14	20	24
	1	8	14	20	26	36
	1,5	14	16	24	32	40
	2	16	18	24	36	42
	2,5	22	22	30	38	-
	3,5	26	26	34	38	-
	5	28	28	36	-	-
	7	34	34	38	-	-
10	34	38	38	-	-	
30	0,140	2	3	3	8	10
	0,35	4	4	12	14	18
	0,5	4	10	16	20	24
	1	8	14	22	26	36
	1,5	14	16	24	32	40
	2	16	20	26	36	44
	2,5	22	24	30	38	-
	3,5	26	26	34	38	-
	5	28	28	36	-	-
	7	34	34	38	-	-
10	38	38	38	-	-	
50	0,140	2	3	3	8	10
	0,35	4	5	12	14	18
	0,5	4	10	16	20	24
	1	10	14	22	26	36
	1,5	14	16	30	32	40
	2	18	20	32	36	44
	2,5	22	24	38	38	-
	3,5	26	26	38	38	-
	5	28	28	46	-	-
	7	34	34	50	-	-
10	38	38	60	-	-	
80	0,140	2	3	3	8	10
	0,35	4	5	12	16	18
	0,5	4	12	18	20	24
	1	10	16	22	28	36
	1,5	14	24	30	38	40
	2	18	30	32	40	44
	2,5	22	35	38	44	48
	3,5	28	38	40	48	48
	5	38	46	46	48	48
	7	44	48	48	48	48
10	46	60	60	60	60	

*For types 720M / 727M ask our sales offices

*For inlet pressures greater than 10 bar, ask our sales offices

The information contained in this brochure is subject to change without notice.

DISTRIBUTOR

Type 720/727							
Outlet pressure [mbar]	Inlet pressure [bar]	Ø orifices [mm]					
		3,2	4,8	6,4	9,5	12,7	
180	0,5	4	4	14	20	24	
	1	10	18	24	28	36	
	1,5	14	24	32	38	46	
	2	18	30	38	42	46	
	2,5	22	36	46	52	58	
	3,5	28	42	54	60	70	
	5	38	46	60	66	78	
	7	44	65	65	70	102	
	10	46	70	70	70	102	
	350	0,5	-	-	11	16	17
1		10	18	24	32	36	
1,5		14	22	36	38	46	
2		16	30	42	42	46	
2,5		22	34	52	52	58	
3,5		28	44	60	64	76	
5		34	50	66	72	90	
7		42	66	70	76	124	
10		46	70	70	80	124	
700		1	-	14	16	22	28
	1,5	14	20	24	32	38	
	2	16	24	34	42	46	
	2,5	22	26	34	50	58	
	3,5	26	38	44	66	76	
	5	34	42	62	72	88	
	7	38	58	73	80	124	
	10	46	70	80	95	124	
	1000	2	20	22	36	42	58
		2,5	20	24	46	54	67
3,5		26	38	54	66	80	
5		36	42	70	80	100	
7		42	58	78	105	135	
10		52	70	90	120	145	
1500		2,5	16	22	31	38	64
		3,5	22	32	38	55	78
		5	30	38	56	72	95
		7	38	58	64	97	125
	10	42	60	74	115	140	
	2000	2,5	10	15	20	25	55
		3,5	22	28	39	44	74
		5	28	38	55	66	90
		7	36	54	76	92	115
		10	42	60	82	110	130
2500		3,5	-	26	36	44	70
		5	26	36	55	66	85
		7	36	55	70	92	100
10		42	60	76	105	125	

To calculate capacities with other gases, multiply K factor from the following chart.

GAS	SPECIFIC GRAVITY	K FACTOR
Butane	2	0.55
LPG	1.5	0.63
Carbonic anhydride	1.5	0.63
Oxygen	1.1	0.74
Air	1	0.77
Nitrogen	0.97	0.79
Acetylene	0.9	0.82
Ammonia	0.59	1.02
Hydrogen	0.07	3
Biogas*	máx 1.2	0.7
	mín 0.8	0.75

*The proper operation is guaranteed only for treated Biogas (Low content of sulfur)

625 and 627 pressure regulators have been designed to withstand input pressures up to 36 bar and can deliver regulated outlet pressure between 0.35 and 4 bar.

Model 625 is equipped with safety shutoff device (SSV) protection for excess outlet pressure with a manually reseted system, this system is ideal in cases where it's not recommendable to install a safety "pressure relief valve".

Maximum safety shut off pressure is 5 bar.

Models consist of 1" and 2" BSP threaded connections (NPT connections upon request) or 1" and 2" ASME S300 complying flanged ends, and may be connected either horizontally or vertically as needed.

Standard model withstands inlet pressure up to 19 bar and "A" type (high pressure) can take inlet pressure up to 36 bar.

Models 625M and 627M operate with a control line (1/4" BSP Connection) for monitoring other valves or devices.



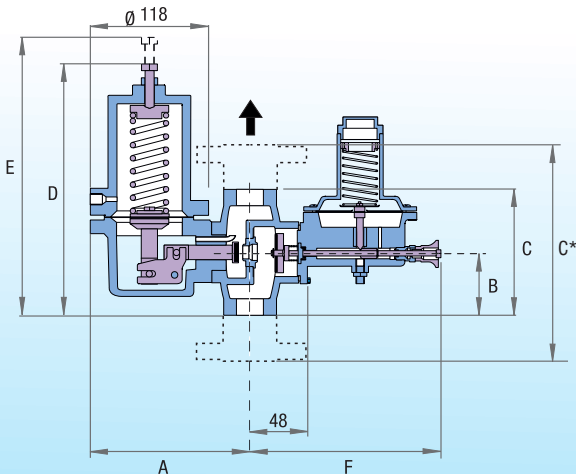
TECHNICAL DATA

CONNECTION STYLE	Threaded 1" ó 2" NPT or BSP Flanged 1" ó 2" S300
OPERATING TEMPERATURE	From -20°C to 60°C

BUILDING MATERIALS

BODY:	Ductile Iron or steel Flanged bodies are available only in steel
INTERNAL:	Brass
DIAPHRAGM AND VALVE PLUG:	Nitrile (NBR)

DIMENSIONS (mm).



Connection style	A	B	C	D	E	F		Weight (Kg)	
						625/M	625A/AM	627	625
1"	160	57,5	115	225	260	185	195	3	6,8
2"	180	65	130	232,5	267,5	185	195	4,5	8,3
1" Flanged S300	160	99	197*	266,5	301,5	185	195	6,2	9,9
2" Flanged S300	180	133	267*	301	336	185	195	11	15

Pressure Regulator

EQA 625/627

CAPACITY CHART

NATURAL GAS. Capacities in Nm³/h, Accuracy class Ac 10 (±10%)

Outlet pressure (bar)	Inlet pressure (bar)	Ø 1"					Ø 2"				
		Orifice in mm					Orifice in mm				
		3,2	4,8	6,4	9,5	12,7	3,2	4,8	6,4	9,5	12,7
0,5	2,5	25	50	73	165	182	25	50	73	180	250
	4	42	79	128	261	311	42	79	128	277	387
	5	52	96	160	314	385	52	96	160	330	462
	7	77	138	231	440	534	77	138	231	473	605
	10	86	149	248	495	-	86	149	248	517	-
	14	99	165	270	572	-	99	165	270	605	-
	19	116	187	297	-	-	116	187	297	-	-
1	25	149	226	-	-	-	149	226	-	-	-
	2,5	22	45	70	155	180	22	45	70	160	210
	4	36	74	125	243	310	36	74	125	268	370
	5	44	90	157	292	385	44	90	157	330	462
	7	72	132	231	429	534	72	132	231	473	605
	10	83	145	248	484	-	83	145	248	517	-
	14	96	165	270	561	-	96	165	270	605	-
	19	116	187	297	660	-	116	187	297	715	-
1,5	25	149	226	336	-	-	149	226	336	-	-
	36	200	400	540	-	-	200	430	560	-	-
	2,5	20	40	65	140	170	20	40	65	150	200
	4	32	70	121	230	304	32	70	121	264	359
	5	39	88	154	281	374	39	88	154	330	451
	7	68	132	220	418	517	68	132	220	473	600
	10	80	145	237	468	-	80	145	237	517	-
	14	96	165	259	545	-	96	165	259	605	-
2	19	116	187	286	649	-	116	187	286	715	-
	25	149	226	330	-	-	149	226	330	-	-
	36	200	400	540	-	-	200	430	560	-	-
	2,5	15	35	55	90	120	15	35	55	100	150
	5	33	83	143	264	341	33	83	143	275	374
	7	66	127	215	407	484	66	127	215	440	572
	10	79	143	231	462	-	79	143	231	495	-
4	14	96	162	253	539	-	96	162	253	594	-
	19	116	187	286	649	-	116	187	286	704	-
	25	149	226	330	-	-	149	226	330	-	-
	36	200	400	540	-	-	200	430	560	-	-
	7	61	108	187	297	319	61	108	187	330	429
	10	72	121	204	363	484	72	121	204	396	539
	14	88	143	231	462	-	88	143	231	495	-
4	19	110	171	264	605	-	110	171	264	638	-
	25	145	207	293	-	-	145	207	293	-	-
	36	200	400	540	-	-	200	430	560	-	-

LPG. Capacities in Nm³/h, Accuracy class Ac 15 (±10%)

Outlet pressure (bar)	Inlet pressure (bar)	Ø 1"					Ø 2"				
		Orifice in mm					Orifice in mm				
		3,2	4,8	6,4	9,5	12,7	3,2	4,8	6,4	9,5	12,7
1,4	3	15	30	60	130	160	15	30	60	150	200
	3,5	18	38	66	150	180	18	38	66	170	230
	5	38	70	115	210	260	38	70	115	230	310
	7	50	67	124	240	252	50	67	124	270	370
	10	65	84	140	308	-	65	84	140	330	-
1,5	3	15	28	55	120	150	15	28	55	130	190
	3,5	18	35	60	130	160	18	35	60	150	220
	5	38	65	110	194	250	38	65	110	220	290
	7	50	90	150	270	335	50	90	150	310	390
	10	65	110	165	308	-	65	110	165	340	-

SPRING CHART *

COD	wire Ø	Regulated pressure (bar)
R36	3,50	0,4 a 0,7
R10	3,75	0,7 a 0,9
R37	4,00	0,9 a 1,2
R38	4,25	1,2 a 1,6
R39	4,50	1,6 a 2,0
R11	4,75	2,0 a 2,5
R12	5,00	2,5 a 3,1
R54	5,50	3,1 a 4,0

* For type 625-A / 627-A information ask our sales representatives.

To calculate capacities in other gases, use K factor in the following chart.

GAS	SPECIFIC GRAVITY	K factor
Butane	2	0.55
LPG	1.5	0.63
Carbon dioxide	1.5	0.63
Oxygen	1.1	0.74
Air	1	0.77
Nitrogen	0.97	0.79
Acetylene	0.9	0.82
Ammonia	0.59	1.02
Hydrogen	0.07	3
Biogas*	max 1.2	0.7
	min 0.8	0.75

* Proper operation with Biogas is only guaranteed for treated Biogas (low sulfur content).

AVAILABLE MODELS

	Inlet Pressure up to	Inlet pressure up to	Control line down stream (Monitor)	SSV
	19 Bar	36 Bar		
625	X			X
627	X			
625A		X		X
627A		X		
625M	X		X	X
627M	X		X	
625AM		X	X	X
627AM		X	X	

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