Utmost®

品质与艺术完美结合

艾坦姆自力式调节阀

Utmost® Regulators

艾坦姆自力式调节阀

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Utmost®

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艾坦姆自力式调节阀
Utmost® Regulators

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艾坦姆自力式调节阀
Utmost® Regulator

1- 单座减压调节出口压力
Single Seat Reduce valve
2- 弹簧负载式泄压、背压阀
Spring Loading Relief ,Back pressure Valve
3- 大流量弹簧负载式减压阀
Max Cv Reduce valve Spring Loading
4- 气体工业大面积膜片减压、泄压阀
Gas industry Reduce and Reduce valve
5- 大流量 Max. Flow rate

0- 标准 Standard
71- 金属密封双座减压阀 Reducing valve with double seat metal sealing
72- 金属密封双座泄压阀 Relief valve with double seat metal sealing
73- 软密封双座减压阀 Reducing valve with double seat soft sealing
74- 软密封双座泄压阀 Relief valve with double seat soft sealing
81- 金属密封单座减压阀 Reducing valve with single seat metal sealing
82- 金属密封单座泄压阀 Relief valve with single seat metal sealing
83- 软属密封单座减压阀 Reducing valve with single seat soft sealing
84- 软属密封单座泄压阀 Relief valve with single seat soft sealing
备注 /Remark: 71-84 仅限于 R65 系列 /71-84suit for R65 serials

1- 碳钢阀体，铸铁弹簧外壳 Carbon steel valve body, Iron spring
2- 全碳钢 Valve body and actuator in carbon steel
3- 不锈钢阀体，碳钢弹簧外壳 SS valve body, Carbon steel spring
4- 全不锈钢 Valve body and actuator in SS

适用于 R61-R63 系列阀门执行器弹簧范围

1-110 系列	4.5 – 46	Bar g
2-120 系列	2.6- 29.5	Bar g
3-130 系列	1.7 – 22.1	Bar g
4-140 系列	0.7 – 9.2	Bar g
5-150 系列	0.094-2.7	Bar g
6-160 系列	0.0025-0.84	Bar g
7-170 系列	0.0012-0.23	Bar g

适用于 R65 系列阀门执行器弹簧范围

1-310 系列	4.0-26.9	Bar g
2-320 系列	2.0-15.3	Bar g
3-330 系列	0.9-6.8	Bar g
4-340 系列	0.38-2.9	Bar g
5-350 系列	0.0045-1.2	Bar g
6-360 系列	0.0015-0.48	Bar g

适用于 R64 系列阀门执行器弹簧范围

1-210	3.4 to 5.5 mbar
2-220	5.5 to 9.3 mbar
3-230	9.3 to 22.0 mbar
4-240	22.0 to 34.0 mbar
5-250	34.0 to 62.0 mbar
6-260	62.0 to 98.0 mbar
7-270	0.098 to 0.190 bar
8-280	0.190 to 0.300 bar
9-290	0.300 to 0.610 bar

B 为阀内取压（防爆型）
适用于 R6571-R6584 系列

R610 系列自力式调节阀
R610 Series Regulator

产品特点 Features:

- 流 - 开；
  Flow to open design
- 每个口径有 9 至 14 种不同的可选的 Cv 值保证调节的高精确性；
  From 9 to 14 different Cv's for each size to assure high accuracy in regulation
- 金属或软阀座可选（金属阀座泄漏等级三 / 四级，软阀座泄漏等级五 / 六级，依据 ANSI/FCI 70.2 标准，有 10% 检测误差）；
  Metal or Soft Seat (respectively leakage class III/IV or V/VI according to ANSI/FCI 70.2 measured with 10% offset)
- 阀内取压（也可选阀外）；
  Internal pressure sensing (external on request)
- 无密封填料结构（该结构形式只适用于阀内取压）；
  Packing-less construction (available only with internal pressure sensing)
- 可选不同的端面距（安装的高灵活性）；
  Different face to face dimensions available (high flexibility in installation)
- 依据所要求的调节范围多种执行器可选；
  Wide range of actuators according to the requested regulation range
- 可选合成橡胶或不锈钢隔膜；
  Wide range of elastomeric diaphragms or in SS
- 可选全封闭结构（适用于危险介质，遵从 ATEX 标准）；
  Fully sealed construction available (suitable for dangerous medium; ATEX compliant)
- 在高压力降时可选平衡式结构；
  Balanced construction available for high pressure drops

规格参数 Specification:

功能 /Function:	减压 Reducing
阀座类型 Seat type:	单座阀 Single
尺寸范围 /Size:	1/2'' 到 2" From 1/2'' up to 2"
阀体材质 Body material:	碳钢，不锈钢和特殊材质 Carbon steel, Stainless steel and Exotic materials
连接形式 /End connections:	螺纹（F-NPT 或气体）和法兰（ANSI 或 NP） Threaded (F-NPT or GAS) and Flanged (ANSI or NP)
最高阀体压力 /Max rating:	美标 /ANSI 1500
Cv 值 Cv Range:	0.033 到 12.8/From 0.033 up to 12.8
阀芯材质 /Trim materials:	不锈钢和特殊材质 Stainless steel (std.) and Exotic materials
膜片材质 /Diaphragms:	氯丁橡胶，PTFE, FKM, 不锈钢 , 其它， Polychloroprene, PTFE, FKM, Stainless steel, other

R610 系列自力式调节阀
R610 Series Regulator

介质应用类型 Medium & Applications:

气体 Gas	空气，惰性气体，二氧化碳，氧气，氢气，氟气，氨气，制冷气体 Air, inert gas, CO_2, O_2, H_2, F, NH_3, Frigorific Gas
蒸汽 Steam	蒸汽，水，酒精蒸汽，有机蒸汽，硫酸 Steam H_2O, alcoholic steams, organic steam, sulphuric acid
液体 Liquid	水，水溶液，碳氢化合物，酒精，润滑油，导热油，溶剂，制冷液体，丙烯酸化合物 Water, aqueous soluons, hydrocarbons, alcohol, lubrificang oils, diathermic oils, solvents, frigorific fluids, acrylic compounds

技术数据表 /Technical datasheet
流量 Cv 值 /Capacities Cv values

流孔	阀体尺寸									
	1/2"(DN15)		3/4"(DN20)		1"(DN25)		1-1/2"(DN40)		2"(DN50)	
1	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031
2	0.15	0.11	0.15	0.12	0.16	0.13	0.16	0.15	0.16	0.15
3	0.35	0.24	0.35	0.24	0.35	0.24	0.35	0.24	0.35	0.24
4	0.57	0.40	0.59	0.40	0.59	0.40	0.59	0.40	0.59	0.40
5	1.0	0.44	1.0	0.44	1.0	0.44	1.0	0.44	1.0	0.44
6	1.2	0.67	1.2	0.67	1.2	0.67	1.2	0.67	1.2	0.67
8	2.1	1.2	2.1	1.3	2.2	1.4	2.3	1.4	2.3	1.4
10	3.0	1.7	3.1	1.7	3.1	1.7	3.3	1.9	3.5	1.9
12	4.3	2.0	4.3	2.0	4.4	2.0	4.7	2.0	4.7	2.0
14			5.5	2.4	5.5	2.4	6.0	2.4	6.0	2.4
16			5.9	2.3	6.1	2.3	6.6	2.3	7.9	2.3
18					7.5	3.0	8.2(8.0*)	3.0	9.2(9.0*)	3.0
20							10.4(9.8*)	4.0	10.4(10.1*)	4.0
22							12.8(12.5*)	4.3	12.8(12.5*)	4.3

□ C 橡胶膜片的所有阀体口径对应的 Cv 值 /Cv for all body size with elastomer diaphragm;

■ 金属膜片的所有阀体口径对应的 Cv 值 /Cv for all body size with metal diaphragm;

*100 系列执行器降低的 Cv 值 /Reduced Cv for 100 actuator;

R610 系列自力式调节阀
R610 Series Regulator

最大允许压力 Maximum inlet pressures related to temperature：

连接方式 Connetion	结构	最大承受压力 Max. Pressure				
		RT(20℃ /68 ℉)	100℃ (212 ℉)	200℃ (392 ℉)	250℃ (482 ℉)	300℃ (572 ℉)
法兰连接 Flanged	CS	108barg	108barg	108barg	108barg	108barg
	全 CS					
	SS					
	全 SS	81 barg	75barg	62barg	58barg	54barg
	全 CS NACE	87 barg	87barg	87barg	87barg	87barg
	SS NACE					
	全 SS NACE	73 Barg	62barg	58barg	56barg	55barg
螺纹连接 Treaded	1/2" 至 1"	280 barg	237barg	199barg	189barg	177barg
	1 1/2"	96 barg	82barg	68barg	64barg	60barg

备注：CS= 碳钢 , SS= 不锈钢 / Note: CS=Carbon Steel SS=Stainless Steel

执行器可选范围 Actuators operating range:

执行器 /Actuator	弹簧弹性范围 /Spring Range	最大容许压力 /Max.Pressure
110	4.5 至 46.0 Barg	52 Barg
120	2.6 至 29.5 Barg	33 Barg
130	1.7 至 22.1Bar g	25 Barg
140	0.7 至 9.2 Barg	10 Barg
150	0.094 至 2.7 Barg	3 Barg
160	0.0025 至 0.84 Barg	1 Barg
170	0.0012 至 0.23 Barg	0.25 Barg

R610 系列自力式调节阀
R610 Series Regulator

组件材质 Material Combination:

阀体 /Valve Body				
	碳钢（AF1/AS1）	全碳钢（AF2/AS2）	316SS(IF2/IS2)	全 316 SS(IF3/IS3)
	0℃ ≤T≤200℃	-29℃ ≤T≤300℃	-29℃ ≤T≤300℃	-196℃ ≤T≤300℃
阀体 Body	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
高压阀件 HP	ASME SA-351 CF8M	ASME SA-351 CF8M	ASME SA-351 CF8M	ASME SA-351 CF8M
法兰 /Flange	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
暗冒口 /Blind head	ASTM A-350 LF2	ASTM A-350 LF2	ASTM A-479 316	ASTM A-479 316
螺栓 /Studs	ASTM SA-193 B7	ASTM SA-193 B7	EN ISO 3506-1 A4-70	EN ISO 3506-1 A4-70
螺母 /Nuts	ASME SA-194 2H	ASME SA-194 2H	EN ISO 3506-2 A4-70	EN ISO 3506-2 A4-70
阀芯 /Trim				
旋塞 /Plug	ASME SA-351 CF8M	ASME SA-351 CF8M	ASME SA-351 CF8M	ASME SA-351 CF8M
阀杆 /Stem	ASTM 17-4 PH	ASTM 17-4 PH	ASME A-479 304/ NITRONIC 60	ASME A-479 304/ NITRONIC 60
执行器 /Actuator				
弹簧外壳 /Spring Case	ASME SA-278 35	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M
膜片外壳 Diaphragm Case	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
弹簧 /Spring	ASTM A-401	ASTM A-401	ASTM A-401	ASTM A-313 316

备注：CS= 碳钢 , SS= 不锈钢 I　　Note: CS=Carbon Steel SS=Stainless Steel

垫片、密封圈温度限定条件 Gaskets, sealing element :

材质 Material	温度范围 Temperature Range
聚四氟乙烯 (PTFE)	-200 至 250°C　-200 to 250°C
无石棉 (No asbestos)	-50 至 200°C　-50 to 200°C

阀芯材质温度限定条件 Temperature range and inlet pressure limits for Disc material:

材质 Material	温度 Temperature	Max. Pressure
氟橡胶（FKM-FPM）	-10 至 200°C	40barg
聚四氟乙烯 (PTFE)	-200 至 250°C	200barg
不锈钢	-196 在 455°C	280barg

O 型圈材质温度限定条件 Temperature range for O-Rings :

材质 Material	温度范围 Temperature Range
聚四氟乙烯 (PTFE)	-200 to 250°C
氟碳化合物 (FKM-FPM)	-10 to 200°C

R610 系列自力式调节阀
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隔膜材质温度限定条件 Temperature range for Diaphragms

材质 Material	温度范围 Temperature
氢化丁腈橡胶 Chloroprene (CR)	-20 to 90°C
HNBR	-15 to 120°C
聚四氟乙烯（PTFE）	-10 to 200°C
三元乙丙橡胶（EPDM）	-35 to 160°C
硅胶（VMQ）	-50 to 150°C
氟硅橡胶（FVMQ）	-50 to 150°C
不锈钢 Stainless Steel	-196 to 455°C

不同材质金属部件的温度限定条件 Temperature range for O-Rings:

材质 Material	温度范围 Temperature
铸铁 Cast Iron	0 to 232°C
碳钢 Carbon Steel	-29 to 425°C
不锈钢 Stainless Steel	-196 to 455°C

R610 系列自力式调节阀
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弹簧弹性范围 /Spring ranges

弹簧弹性范围基于以下假设

Spring ranges are based on the following assumption:

- 设定点的冲程为 ±3mm
  Stroke from set point is ±3mm
- 最小设定压力有 20% 检测误差
  Offset max 20% for minimum set pressure
- 旋塞上的平衡力较低
  Low balancing forces on the plug

如需求不同的操作条件请联系艾坦姆技术部。

If any different operating conditions are required
Please contact Utmost Technical Dept.

* 膜片厚度小 (FKM 0.18mm)，倒置安装。
  Thin diaphragm (FKM 0.18mm) and upside down installation.

☐	Up right installation
	竖直安装
■	Upside down installation
	倒置安装

执行器 Actuator	弹簧 Spring	弹簧弹性范围 Spring Ranges			
		最小设定压力 Min. Set Pressure		最大设定压力 Max. Set Pressure	
	名称 Name	Barg	psig	Barg	psig
110	4BIS	4.5	65	8.7	126
	6	7.2	105	14.0	203
	7	10.4	151	21.6	314
	8	14.6	211	23.0	334
	9	22.0	319	34.6	502
	9BIS	27.4	397	37.9	550
	10	34.1	494	41.7	604
	10BIS	37.8	548	46.0	667
120	4BIS	2.6	37	4.1	59
	6	3.8	56	6.6	95
	7	5.3	77	10.1	147
	8	7.3	105	10.8	156
	9	10.8	156	16.2	235
	9BIS	13.3	193	17.8	258
	10	16.4	238	19.5	283
	10BIS	18.1	263	29.5	428
130	4BIS	1.7	25	3.0	44
	6	2.7	39	4.9	71
	7	3.8	55	7.6	110
	8	5.2	76	8.0	116
	9	7.8	113	12.1	175
	9BIS	9.7	141	13.2	192
	10	12.0	174	14.5	211
	10BIS	13.3	193	22.1	320
140	4BIS	0.7	10	1.3	19
	6	1.1	16	2.1	31
	7	1.6	23	3.3	47
	8	2.2	32	3.5	50
	9	3.3	48	5.2	75
	9BIS	4.1	60	5.7	83
	10	5.1	74	6.3	91
	10BIS	5.7	82	9.2	133

R610 系列自力式调节阀
R610 Series Regulator

执行器 Actuator	弹簧 Spring	弹簧弹性范围 Spring Ranges			
		最小设定压力 Min. Set Pressure		最大设定压力 Max. Set Pressure	
	名称 Name	Barg	psig	Barg	psig
150	2bis	0.094	1.36	0.12	1.8
	3	0.106	1.54	0.20	3.0
	4	0.127	1.84	0.24	3.4
	4bis	0.144	2.1	0.37	5.4
	6	0.26	3.8	0.60	8.7
	7	0.40	5.8	0.93	13.4
	8	0.58	8.4	0.99	14.3
	9	0.89	13	1.5	21.5
	9bis	1.1	16	1.6	23.6
	10	1.4	20	1.8	25.9
	10bis	1.6	23	2.7	38.7
160	1*	0.0025	0.036	0.014	0.21
	1 bis	0.015	0.22	0.018	0.25
	2bis	0.019	0.27	0.039	0.56
	3	0.023	0.33	0.063	0.92
	4	0.029	0.42	0.073	1.1
	4bis	0.035	0.50	0.12	1.7
	6	0.071	1.0	0.19	2.7
	7	0.11	1.6	0.29	4.2
	8	0.17	2.4	0.31	4.4
	9	0.27	3.9	0.46	6.7
	9bis	0.34	4.9	0.50	7.3
	10	0.43	6.2	0.55	8.0
	10bis	0.48	6.9	0.84	12.2
170	1*	0.0012	0.017	0.007	0.11
	1bis	0.0059	0.09	0.010	0.14
	2bis	0.0080	0.12	0.021	0.30
	3	0.0100	0.15	0.034	0.50
	4	0.014	0.20	0.04	0.6
	4bis	0.016	0.24	0.06	0.9
	6	0.036	0.5	0.10	1.5
	7	0.06	0.9	0.16	2.3
	8	0.09	1.3	0.17	2.4
	9	0.14	2.1	0.23	3.3

	Up right installation
	竖直安装
	Upside down installation
	倒置安装

R610 系列自力式调节阀
R610 Series Regulator

重量 /Weights | 执行器 /Actuator：110、120、130、140

	NPT/GAS	Class 150 RF	PN 16/25/40	Class 300 RF	Class 600 RF
DN15(1/2″)	16.7kg	19.6 kg	20.2kg	19.8kg	20.1kg
DN20(3/4″)	16.7kg	19.9 kg	20.8kg	20.9kg	21.3kg
DN25(1″)	16.6kg	20.6kg	21.4kg	21.5kg	21.8kg
DN40(1 1/2″)	16.5kg	21.6 kg	22.6kg	23.8kg	24.8kg
DN50(2″)	N.A.	23.1 kg	24.1kg	24.6kg	26.1kg

重量 /Weights | 执行器 /Actuator：150

	NPT/GAS	Class 150 RF	PN 16/25/40	Class 300 RF	Class 600 RF
DN15(1/2″)	21.2kg	24.1 kg	20.2kg	24.7kg	24.6kg
DN20(3/4″)	21.2kg	24.4 kg	20.8kg	25.4kg	25.8kg
DN25(1″)	21.1kg	25.1kg	21.4kg	26kg	26.3kg
DN40(1 1/2″)	21kg	26.1 kg	22.6kg	28.3kg	29.3kg
DN50(2″)	N.A.	27.6 kg	24.1kg	29.1kg	30.6kg

重量 /Weights | 执行器 /Actuator：160

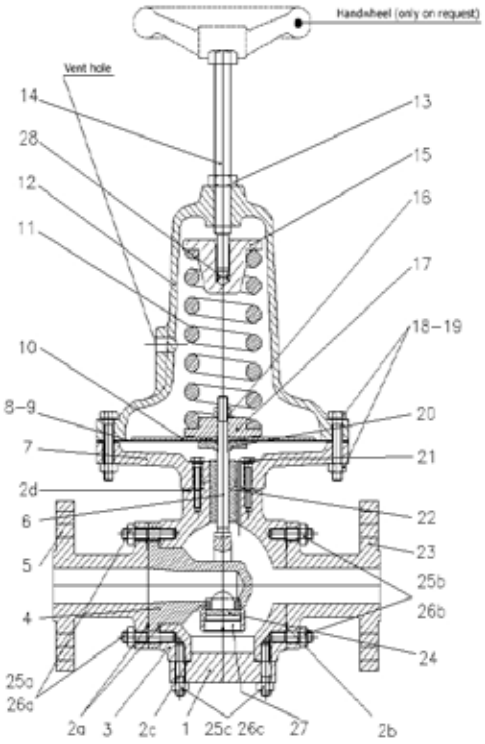
	NPT/GAS	Class 150 RF	PN 16/25/40	Class 300 RF	Class 600 RF
DN15(1/2″)	36.1kg	39 kg	39.6kg	39.2kg	39.5kg
DN20(3/4″)	36.1kg	39.3 kg	40.2kg	40.3kg	40.7kg
DN25(1″)	36kg	40kg	40.8kg	40.9kg	41.2kg
DN40(1 1/2″)	35.9kg	41 kg	42kg	43.2kg	44.2kg
DN50(2″)	N.A.	42.5 kg	43.5kg	44kg	45.5kg

重量 /Weights | 执行器 /Actuator：170

	NPT/ 燃气	Class 150 RF	PN 16/25/40	Class 300 RF	Class 600 RF
DN15(1/2″)	26.4kg	29.3 kg	29.9kg	29.5kg	29.8kg
DN20(3/4″)	26.4kg	29.6 kg	30.5kg	30.6kg	31kg
DN25(1″)	26.3kg	30.3 kg	31.1kg	31.2kg	31.5kg
DN40(1 1/2″)	26.2kg	31.3 kg	32.3kg	33.5kg	34.5kg
DN50(2″)	N.A.	32.8 kg	33.8kg	34.3kg	35.8kg

R610 系列自力式调节阀
R610 Series Regulator

R610 系列阀门剖面图



备件清单：Parts list:

1 – 暗冒口 Blind head

2 - (a-b-c-d) 垫圈组件 Gaskets set (*)

3 – 阀体 Body

4 – 高压阀件 High pressure insert

5 – 入口法兰 Inlet flange

6 – 阀杆 Stem

7 – 膜片外壳 Actuator diaphragm case

8 – 膜片 Diaphragm (*)

9 – 保护套 Protection (if requested) + O-ring (*)

10– 膜片压盘（上）Diaphragm plate (Upper)

11– 弹簧 Spring

12— 执行机构外壳 Spring case

13 – 调节螺丝的防松螺母 Adjusting screw locknut

14 – 调节螺丝 Adjusting screw

15 – 弹簧扣（上部）Spring button (Upper)

16 – 螺母 Nut

17 - 弹簧扣（下部）Spring button (Lower)

18 – 螺丝 Screw

19 – 螺母 Nut

20 – 小压盘 Little plate

21 – 螺丝 Screw

22 – 导向 Guide

23 – 出口法兰 Outlet flange

24 – 阀瓣 Disc (*)

25 – 螺栓 (a-b-c) Stud

26 – 螺母 (a-b-c) Nut

27 – 旋塞螺丝 Plug screw (*)

28 – 滚珠 Ball

29 – 滚珠底座 Ball seat

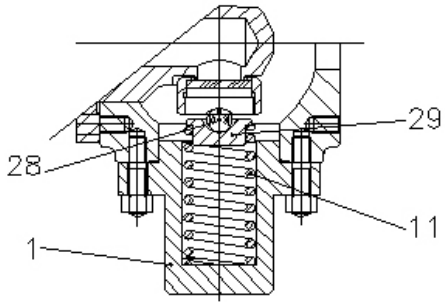
(*) Recommended spare parts

两年运行零部件组件 2 Years spare part kit:

- 垫圈组件（螺纹连接 3 个，法兰连接 5 个）
Gasket Kit (3 pcs if threaded - 5 if flange,)
- 旋塞阀瓣 Plug disc
- 膜片组件（膜片 +O 型密封圈）
Diaphragm kit (Diaphragm + o-ring)

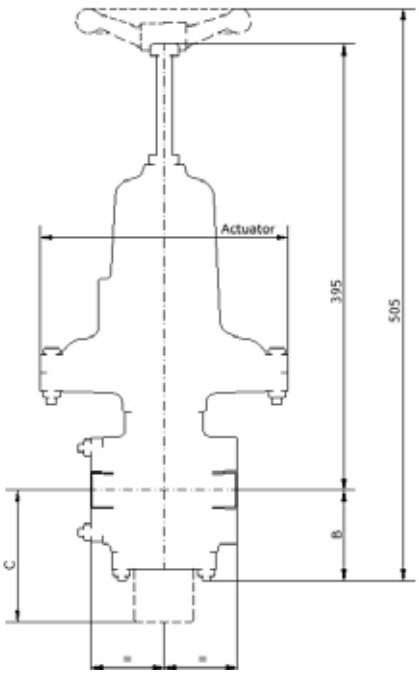
五年运行零部件组件 5 Years spare part kit:

- 垫圈组件（螺纹连接 3 个，法兰连接 5 个）
Gasket Kit (3 pcs if threaded - 5 if flange,)
- 旋塞 Plug
- 旋塞阀瓣 Plug disc
- 膜片组件（膜片 +O 型密封圈）
Diaphragm kit (Diaphragm + o-ring)

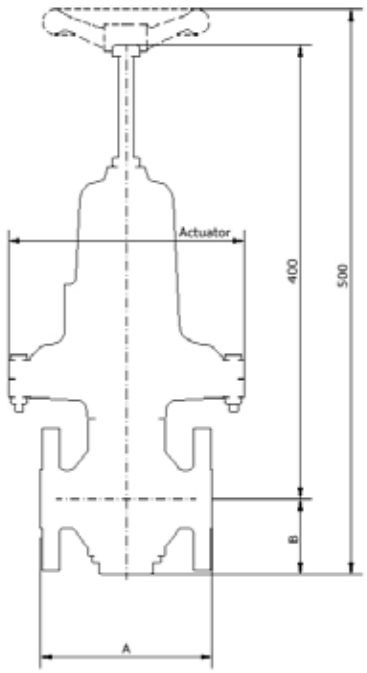


R610 系列自力式调节阀
R610 Series Regulator

R610 系列阀门剖面图
Sectional drawing of R610 series



螺纹连接剖面图



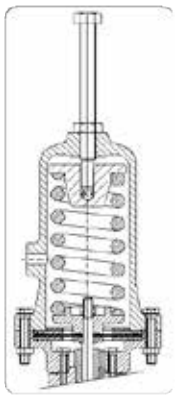
法兰连接剖面图

阀体尺寸和端面距离 / Body sizes and face to face dimensions

尺寸 /Size	法兰连接 /Flanged			螺纹连接 /Threaded		
	PN16			NPT-F		
	PN25					
	PN40			燃气 GAS-F Con,		
	ANSI 150RF			BSP-F		
	ANSI 300RF					
	ANSI 600RF					
	A	B	C	A	B	C
1/2"(DN15)	285mm	80mm	115mm	130mm	80mm	115mm
3/4"(DN20)						
1"(DN25)						
1 1/2"(DN40)						
2"(DN50)				N/A	N/A	N/A

R610 系列自力式调节阀
R610 Series Regulator

执行机构 /Actuator



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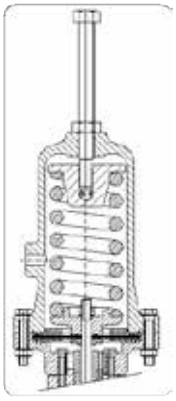

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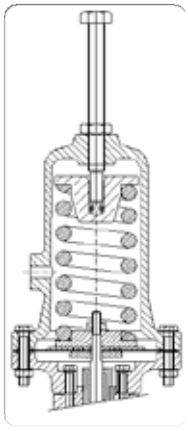

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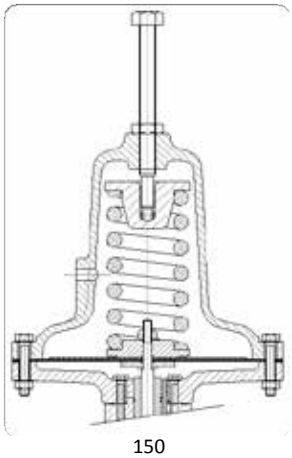

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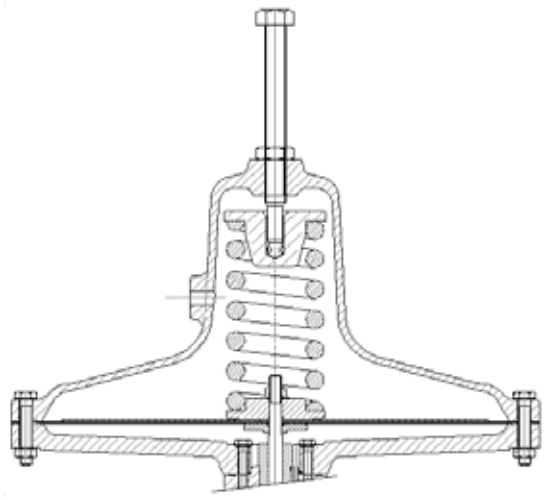

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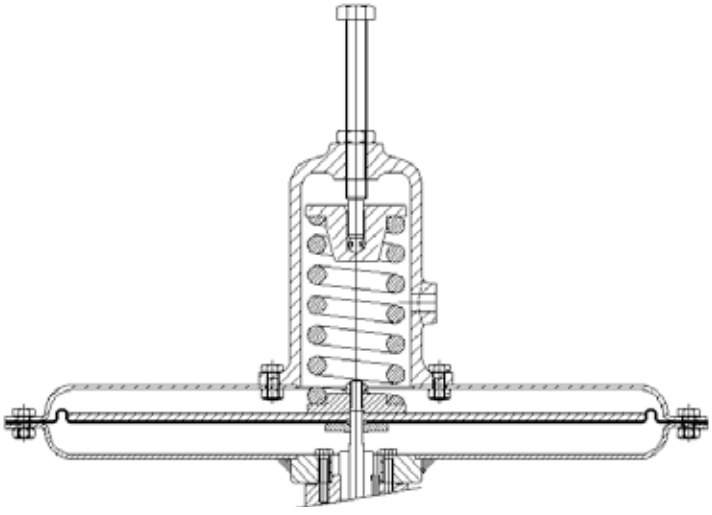

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执行机构尺寸 /Actuator Size

执行器 /Actuator	外径 /Outer Diameter	表面积 /Surface Size
	mm	cm^2
110	132	9.7
120	132	20.7
130	132	27.8
140	140	64.5
150	220	226.5
160	360	730.1
170	480	1346

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Annoucement: The data of this brochure comes from standard valve in theory and measurement, data updates without notice.

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品质与艺术完美结合

艾坦姆自力式调节阀

Utmost® Regulators

艾坦姆自力式调节阀

Utmost® Regulators

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艾坦姆自力式调节阀
Utmost® Regulators

R6	1	0	1	1	B

艾坦姆自力式调节阀
Utmost® Regulator

1- 单座减压调节出口压力
Single Seat Reduce valve
2- 弹簧负载式泄压、背压阀
Spring Loading Relief ,Back pressure Valve
3- 大流量弹簧负载式减压阀
Max Cv Reduce valve Spring Loading
4- 气体工业大面积膜片减压、泄压阀
Gas industry Reduce and Reduce valve
5- 大流量 Max. Flow rate

0- 标准 Standard
71- 金属密封双座减压阀 Reducing valve with double seat metal sealing
72- 金属密封双座泄压阀 Relief valve with double seat metal sealing
73- 软密封双座减压阀 Reducing valve with double seat soft sealing
74- 软密封双座泄压阀 Relief valve with double seat soft sealing
81- 金属密封单座减压阀 Reducing valve with single seat metal sealing
82- 金属密封单座泄压阀 Relief valve with single seat metal sealing
83- 软属密封单座减压阀 Reducing valve with single seat soft sealing
84- 软属密封单座泄压阀 Relief valve with single seat soft sealing
备注 /Remark: 71-84 仅限于 R65 系列 /71-84suit for R65 serials

1- 碳钢阀体，铸铁弹簧外壳 Carbon steel valve body, Iron spring
2- 全碳钢 Valve body and actuator in carbon steel
3- 不锈钢阀体，碳钢弹簧外壳 SS valve body, Carbon steel spring
4- 全不锈钢 Valve body and actuator in SS

适用于 R61-R63 系列阀门执行器弹簧范围

1-110 系列	4.5 – 46	Bar g
2-120 系列	2.6- 29.5	Bar g
3-130 系列	1.7 – 22.1	Bar g
4-140 系列	0.7 – 9.2	Bar g
5-150 系列	0.094-2.7	Bar g
6-160 系列	0.0025-0.84	Bar g
7-170 系列	0.0012-0.23	Bar g

适用于 R65 系列阀门执行器弹簧范围

1-310 系列	4.0-26.9	Bar g
2-320 系列	2.0-15.3	Bar g
3-330 系列	0.9-6.8	Bar g
4-340 系列	0.38-2.9	Bar g
5-350 系列	0.0045-1.2	Bar g
6-360 系列	0.0015-0.48	Bar g

适用于 R64 系列阀门执行器弹簧范围

1-210	3.4 to 5.5 mbar
2-220	5.5 to 9.3 mbar
3-230	9.3 to 22.0 mbar
4-240	22.0 to 34.0 mbar
5-250	34.0 to 62.0 mbar
6-260	62.0 to 98.0 mbar
7-270	0.098 to 0.190 bar
8-280	0.190 to 0.300 bar
9-290	0.300 to 0.610 bar

B 为阀内取压（防爆型）
适用于 R6571-R6584 系列

R620 系列自力式调节阀
R620 Series Regulator

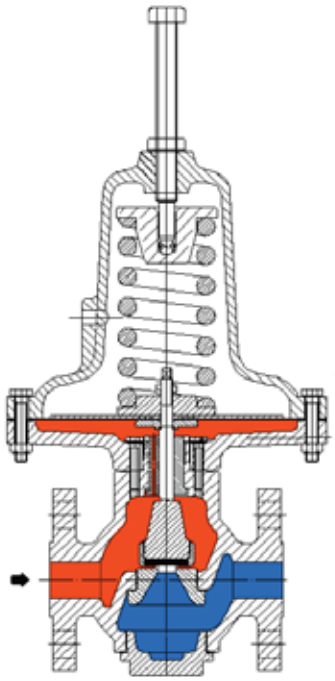
产品特点 Features:

- 流 - 开；
  Flow to open design
- 法兰端面及口径范围可按照 ISA 标准生产；
  Available with ISA Face to face dimensions
- 每个口径有 4 至 8 种不同的可选的 Cv 值保证调节的高精确性；
  From 4 to 8 different Cv's for each size to assure high accuracy in regulation
- 金属或软阀座可选（金属阀座泄漏等级三 / 四级，软阀座泄漏等级五 / 六级，依据 ANSI/FCI 70.2 标准，有 10% 检测误差）；
  Metal or Soft Seat (respectively leakage class III/IV or soft seat V/VI according to ANSI/FCI 70.2 measured with 10% offset)
- 阀内取压（也可选阀外）；
  Internal pressure sensing (external on request)
- 无密封填料结构（该结构形式只适用于阀内取压）；
  Packing-less construction (available only with internal pressure sensing)
- 可选合成橡胶或不锈钢隔膜；
  Wide range of elastomeric diaphragms or in SS.
- 可选全封闭结构（适用于危险介质，遵从 ATEX 标准）；
  Fully sealed construction available (suitable for dangerous medium; ATEX compliant)

规格参数 Specification:

功能 /Function:	泄压、背压 Relief , Backpressure
阀座类型 Seat type:	单座阀 Single
尺寸范围 /Size:	1/2'' 到 2" From 1/2'' up to 2"
阀体材质 Body material:	碳钢，不锈钢和特殊材质 Carbon steel, Stainless steel and Exotic materials
连接形式 /End connections:	螺纹（F-NPT 或气体）和法兰（ANSI 或 NP） Threaded (F-NPT or GAS) and Flanged (ANSI or NP)
最高阀体压力 /Max rating:	美标 /ANSI 600
Cv 值 Cv Range:	0.033 到 35/From 0.033 up to 35
阀芯材质 /Trim materials:	不锈钢和特殊材质 Stainless steel (std.) and Exotic materials
膜片材质 /Diaphragms:	氯丁橡胶，PTFE, FKM, 不锈钢 , 其它， Polychloroprene, PTFE, FKM, Stainless steel, other

R620 系列自力式调节阀
R620 Series Regulator



介质应用类型　Medium & Applications:

气体 Gas	空气，惰性气体，二氧化碳，氧气，氢气，氟气，氨气，制冷气体 Air, inert gas, CO_2, O_2, H_2, F, NH_3, Frigorific Gas
蒸汽 Steam	蒸汽，水，酒精蒸汽，有机蒸汽，硫酸 Steam H_2O, alcoholic steams, organic steam, sulphuric acid
液体 Liquid	水，水溶液，碳氢化合物，酒精，润滑油，导热油，溶剂，制冷液体，丙烯酸化合物 Water, aqueous soluons, hydrocarbons, alcohol, lubrificang oils, diathermic oils, solvents, frigorific fluids, acrylic compounds

技术数据表 /Technical datasheet
流量 Cv 值 /Capacities Cv values

流孔	阀体尺寸									
	1/2"(DN15)		3/4"(DN20)		1"(DN25)		1-1/2"(DN40)		2"(DN50)	
1	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031
5	0.6	0.20	0.6	0.20	0.6	0.20	0.6	0.20	0.6	0.20
8	1.7	0.33	1.7	0.33	1.7	0.33	1.7	0.33	1.7	0.33
10	2.5	0.40	2.5	0.40	2.5	0.40	2.5	0.40	2.5	0.40
12	3.4	0.50	3.4	0.50	3.4	0.50	3.4	0.50	3.4	0.50
16			6.5	0.9	6.5	0.9	6.5	0.9	6.5	0.9
20					8.7(7.5*)	1.4	8.7(7.5*)	1.4	8.7(7.5*)	1.4
35							19(15*)	3.0	19(15*)	3.0
46									35(28*)	5.5

☐ C 橡胶膜片的所有阀体口径对应的 Cv 值 /Cv for all body size with elastomer diaphragm;
☐金属膜片的所有阀体口径对应的 Cv 值 /Cv for all body size with metal diaphragm;
*100 系列执行器降低的 Cv 值 /Reduced Cv for 100 actuator;

R620 系列自力式调节阀
R620 Series Regulator

组件材质 Material Combination

阀体 /Valve Body				
	碳钢（AF1/AS1）	全碳钢（AF2/AS2）	316SS(IF2/IS2)	全 316 SS(IF3/IS3)
	0℃ ≤T≤200℃	-29℃ ≤T≤300℃	-29℃ ≤T≤300℃	-196℃ ≤T≤300℃
阀体 Body	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
暗冒口 /Blind head	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASTM A-479 316
阀芯 /Trim				
阀座 /Seat	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316
旋塞 /Plug	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316
阀杆 /Stem	ASTM 17-4 PH	ASTM 17-4 PH	ASTM 17-4 PH	ASTM 17-4 PH
执行器 /Actuator				
弹簧外壳 /Spring Case	ASME SA-278 35	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M
膜片外壳 Diaphragm Case	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
弹簧 /Spring	ASTM A-401	ASTM A-401	ASTM A-401	ASTM A-313 316

备注：ss= 不锈钢 //Note:ss=Stainless Steel

执行器可选范围 Actuators operating range

执行器 /Actuator	弹簧弹性范围 /Spring Range	最大容许压力 /Max.Pressure
110	4.5 至 46.0 Bar g	52 Bar g
120	2.6 至 29.5 Bar g	33 Bar g
130	1.7 至 22.1Bar g	25 Bar g
140	0.7 至 9.2 Bar g	10 Bar g
150	0.094 至 2.7 Bar g	3 Bar g
160	0.0025 至 0.84 Bar g	1 Bar g
170	0.0012 至 0.23 Bar g	0.25 Bar g

垫片、密封圈温度限定条件 Gaskets, sealing element

材质 Material	温度范围 Temperature Range
聚四氟乙烯 (PTFE)	-200 至 250°C -200 to 250°C
无石棉 (No asbestos)	-50 至 200°C -50 to 200°C

R620 系列自力式调节阀
R620 Series Regulator

阀芯材质温度限定条件 Temperature range and inlet pressure limits for Disc material

材质 Material	温度 Temperature	Max. Pressure
氟橡胶（FKM-FPM）	-10 至 200°C	40barg
聚四氟乙烯 (PTFE)	-200 至 250°C	200barg
不锈钢	-196 在 455°C	280barg

隔膜材质温度限定条件 Temperature range for Diaphragms

材质 Material	温度范围 Temperature
氢化丁腈橡胶	-20 to 90°C
HNBR	-15 to 120°C
聚四氟乙烯（PTFE）	-10 to 200°C
三元乙丙橡胶（EPDM）	-35 to 160°C
硅胶（VMQ）	-50 to 150°C
氟硅橡胶（FVMQ）	-50 to 150°C
不锈钢	-196 to 455°C

O 型圈材质温度限定条件 Temperature range for O-Rings

材质 Material	温度范围 Temperature
聚四氟乙烯 (PTFE)	-200 to 250°C
氟碳化合物 (FKM-FPM)	-10 to 200°C

不同材质金属部件的温度限定条件 Temperature range for O-Rings

材质 Material	温度范围 Temperature	Max. Pressure
铸铁 Cast Iron	0 to 232°C	40barg
碳钢 Carbon Steel	-29 to 425°C	200barg
不锈钢 Stainless Steel	-196 to 455°C	280barg

R620 系列自力式调节阀
R620 Series Regulator

弹簧弹性范围 Spring ranges

弹簧弹性范围基于以下假设
Spring ranges are based on the following assumption:

- 设定点的冲程为 ±3mm
  Stroke from set point is ±3mm
- 最小设定压力有 20% 检测误差
  Offset max 20% for minimum set pressure
- 旋塞上的平衡力较低
  Low balancing forces on the plug

如需求不同的操作条件请联系艾坦姆技术部。

If any different operating conditions are required
Please contact UTM Technical Dept.

* 膜片厚度小 (FKM 0.18mm)，倒置安装。

  Thin diaphragm (FKM 0.18mm) and upside down installation.

☐	Up right installation
	竖直安装
■	Upside down installation
	倒置安装

执行器 Actuator	弹簧 Spring	弹簧弹性范围 Spring Ranges			
		最小设定压力 Min. Set Pressure		最大设定压力 Max. Set Pressure	
	名 Name	Barg	psig	Barg	psig
110	4BIS	4.5	65	8.7	126
	6	7.2	105	14.0	203
	7	10.4	151	21.6	314
	8	14.6	211	23.0	334
	9	22.0	319	34.6	502
	9BIS	27.4	397	37.9	550
	10	34.1	494	41.7	604
	10BIS	37.8	548	46.0	667
120	4BIS	2.6	37	4.1	59
	6	3.8	56	6.6	95
	7	5.3	77	10.1	147
	8	7.3	105	10.8	156
	9	10.8	156	16.2	235
	9BIS	13.3	193	17.8	258
	10	16.4	238	19.5	283
	10BIS	18.1	263	29.5	428
130	4BIS	1.7	25	3.0	44
	6	2.7	39	4.9	71
	7	3.8	55	7.6	110
	8	5.2	76	8.0	116
	9	7.8	113	12.1	175
	9BIS	9.7	141	13.2	192
	10	12.0	174	14.5	211
	10BIS	13.3	193	22.1	320
140	4BIS	0.7	10	1.3	19
	6	1.1	16	2.1	31
	7	1.6	23	3.3	47
	8	2.2	32	3.5	50
	9	3.3	48	5.2	75
	9BIS	4.1	60	5.7	83
	10	5.1	74	6.3	91
	10BIS	5.7	82	9.2	133

R620 系列自力式调节阀
R620 Series Regulator

执行器 Actuator	弹簧 Spring	弹簧弹性范围 Spring Ranges			
		最小设定压力 Min. Set Pressure		最大设定压力 Max. Set Pressure	
	名称 Name	Barg	psig	Barg	psig
150	2bis	0.094	1.36	0.12	1.8
	3	0.106	1.54	0.20	3.0
	4	0.127	1.84	0.24	3.4
	4bis	0.144	2.1	0.37	5.4
	6	0.26	3.8	0.60	8.7
	7	0.40	5.8	0.93	13.4
	8	0.58	8.4	0.99	14.3
	9	0.89	13	1.5	21.5
	9bis	1.1	16	1.6	23.6
	10	1.4	20	1.8	25.9
	10bis	1.6	23	2.7	38.7
160	1*	0.0025	0.036	0.014	0.21
	1 bis	0.015	0.22	0.018	0.25
	2bis	0.019	0.27	0.039	0.56
	3	0.023	0.33	0.063	0.92
	4	0.029	0.42	0.073	1.1
	4bis	0.035	0.50	0.12	1.7
	6	0.071	1.0	0.19	2.7
	7	0.11	1.6	0.29	4.2
	8	0.17	2.4	0.31	4.4
	9	0.27	3.9	0.46	6.7
	9bis	0.34	4.9	0.50	7.3
	10	0.43	6.2	0.55	8.0
	10bis	0.48	6.9	0.84	12.2
170	1*	0.0012	0.017	0.007	0.11
	1bis	0.0059	0.09	0.010	0.14
	2bis	0.0080	0.12	0.021	0.30
	3	0.0100	0.15	0.034	0.50
	4	0.014	0.20	0.04	0.6
	4bis	0.016	0.24	0.06	0.9
	6	0.036	0.5	0.10	1.5
	7	0.06	0.9	0.16	2.3
	8	0.09	1.3	0.17	2.4

□	Up right installation
	竖直安装
■	Upside down installation
	倒置安装

R620 系列自力式调节阀
R620 Series Regulator

重量 /Weights | 执行器 /Actuator：110、120、130、140

	NPT/GAS	Class 150 RF	PN 16/25/40	Class 300 RF
DN15(1/2'')	16.7kg	16.5 kg	17.5kg	18.5
DN20(3/4'')	16.7kg	17 kg	18kg	19.5kg
DN25(1'')	16.6kg	17.5kg	18.5kg	20kg
DN40(11/2'')	16.5kg	20.1kg	21.5kg	24kg
DN50(2'')	18.5kg	22 kg	23.1kg	26.3kg

重量 /Weights | 执行器 /Actuator：150

	NPT/GAS	Class 150 RF	PN 16/25/40	Class 300 RF
DN15(1/2'')	18.6kg	18.5 kg	19.5kg	20.5kg
DN20(3/4'')	18.6kg	19 kg	20kg	21.5kg
DN25(1'')	18.5kg	19.5kg	20.5kg	22kg
DN40(11/2'')	20.6kg	22.1 kg	23.5kg	26kg
DN50(2'')	20.5kg	24 kg	25.1kg	28.3kg

重量 /Weights | 执行器 /Actuator：160

	NPT/GAS	Class 150 RF	PN 16/25/40	Class 300 RF
DN15(1/2'')	33.5kg	33.4 kg	34.4kg	35.4kg
DN20(3/4'')	33.5kg	33.9 kg	34.9kg	36.4kg
DN25(1'')	33.4kg	34.4kg	35.4kg	36.9kg
DN40(11/2'')	34.5kg	37 kg	38.4kg	40.9kg
DN50(2'')	35.5 kg	38.9 kg	40kg	43.2kg

重量 /Weights | 执行器 /Actuator：170

	NPT/ 燃气	Class 150 RF	PN 16/25/40	Class 300 RF
DN15(1/2'')	23.8kg	23.7kg	24.7kg	25.7kg
DN20(3/4'')	23.8kg	24.2kg	25.2kg	36.7kg
DN25(1'')	23.7kg	24.7kg	25.7kg	27.2kg
DN40(11/2'')	25.8kg	27.3 kg	28.7kg	31.2kg
DN50(2'')	26.8kg	29.2 kg	30.3kg	33.5kg

R620 系列自力式调节阀
R620 Series Regulator

Parts list:

1 – 暗冒口 Blind head

2 - (a-b) 垫圈组件 Gaskets set (*)

3 – 阀体 Body

4 – 导向 Guiding

5 – 执行器膜片外壳 Inlet flange

6 – 滚珠 Ball

7 – 膜片压盖盘 Actuator diaphragm case

8 – 膜片 Diaphragm (*)

9 – 保护套 Protection (if requested) + O-ring (*)

10– 弹簧外壳 Spring case

11 – 弹簧 Spring

12 - 调节螺丝 Adjusting screw

13 – 调节螺丝的防松螺母 Adjusting screw locknut

14 – 弹簧扣（上部）Spring button (Upper)

15 – 螺母 Nut

16 – 弹簧扣（下部）Spring button (Lower)

17 - 螺丝 Screw

18 – 螺母 Nut

19 – 小圆盘 Little plate

20 – 螺丝 Screw

21 – 阀杆 Stem

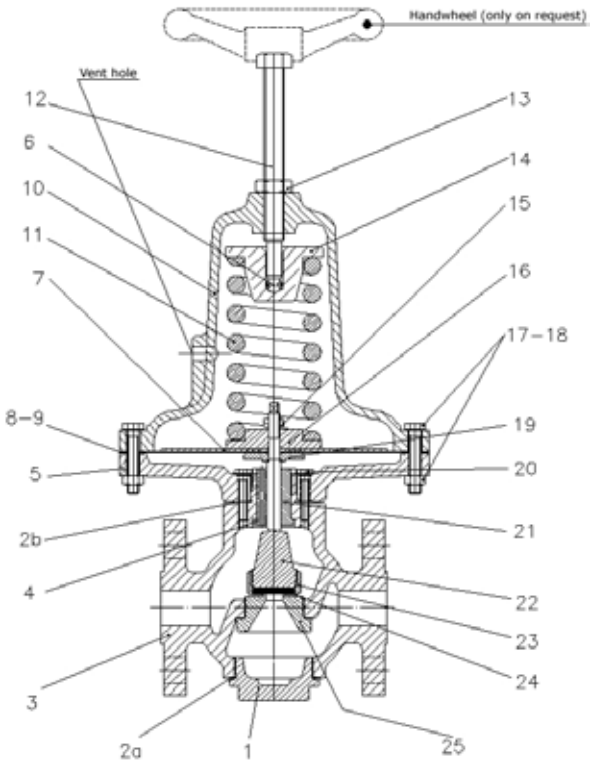
22 – 旋塞 Plug

23 – 密封圈 Ring

24 – 阀瓣 Disc (*)

25 – 阀座 Seat

R620 系列阀门剖面图



(*) Recommended spare parts

两年运行零部件组件 2 Years spare part kit:

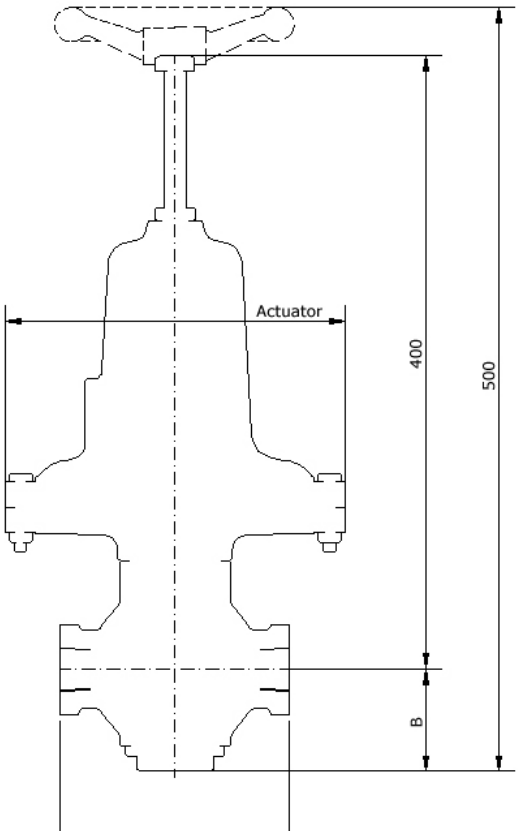
- 垫圈组件（螺纹连接 3 个，法兰连接 5 个）
  Gasket Kit (3 pcs if threaded - 5 if flange,)
- 旋塞阀瓣 Plug disc
- 膜片组件（膜片 +O 型密封圈）
  Diaphragm kit (Diaphragm + o-ring)

五年运行零部件组件 5 Years spare part kit:

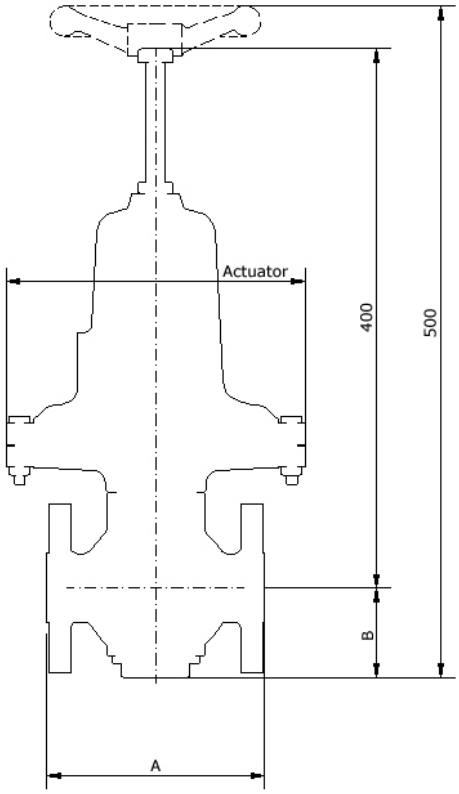
- 垫圈组件（螺纹连接 3 个，法兰连接 5 个）
  Gasket Kit (3 pcs if threaded - 5 if flange,)
- 旋塞 Plug
- 旋塞阀瓣 Plug disc
- 膜片组件（膜片 +O 型密封圈）
  Diaphragm kit (Diaphragm + o-ring)

R620 系列自力式调节阀
R620 Series Regulator

R620 系列阀门剖面图
Sectional drawing of R620 series



螺纹连接剖面图



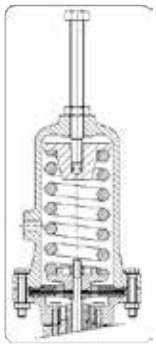
法兰连接剖面图

阀体尺寸和端面距离 / Body sizes and face to face dimensions

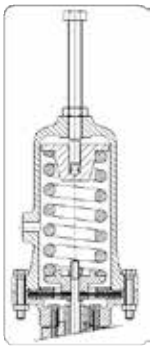
尺寸 /Size	法兰连接 /Flanged		螺纹连接 /Threaded	
	PN16		NPT-F	
	PN25			
	PN40		燃气 GAS-F Con,	
	ANSI 150RF	ANSI 300RF	BSP-F	
	A	B	A	B
1/2''(DN15)	160mm	66 mm	130mm	66 mm
3/4''(DN20)				
1''(DN25)				
1 1/2''(DN40)	185mm	82 mm	170 mm	82 mm
2''(DN50)				

R620 系列自力式调节阀
R620 Series Regulator

执行机构 /Actuator



110/120



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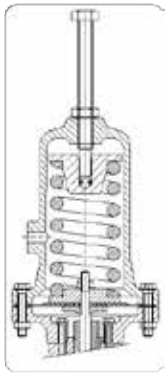

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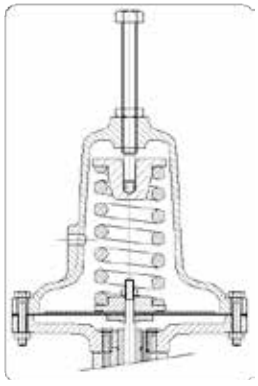

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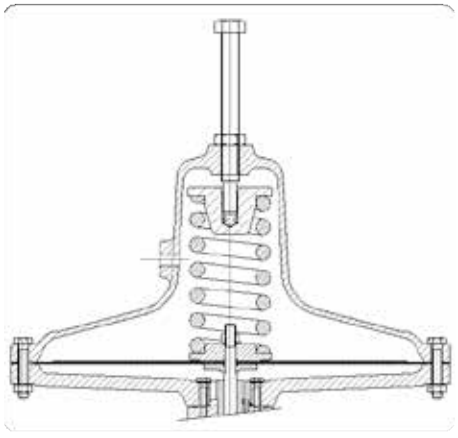

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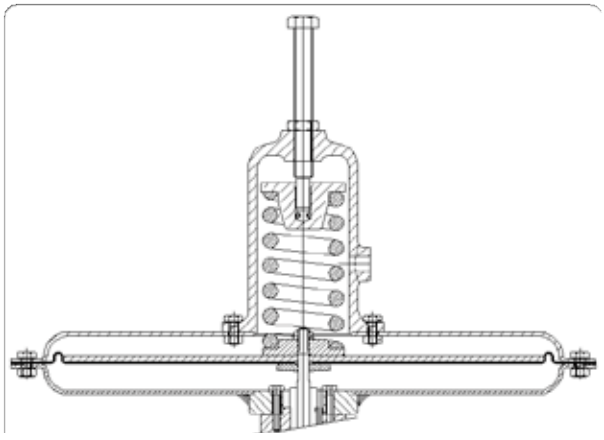

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执行机构尺寸 /Actuator Size

执行器 /Actuator	外径 /Outer Diameter	表面积 /Surface Size
	mm	cm^2
110	132	9.7
120	132	20.7
130	132	27.8
140	140	64.5
150	220	226.5
160	360	730.1
170	480	1346

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品质与艺术完美结合

艾坦姆自力式调节阀

Utmost® Regulators

艾坦姆自力式调节阀

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艾坦姆自力式调节阀
Utmost® Regulators

R6	1	0	1	1	B

艾坦姆自力式调节阀
Utmost® Regulator

1- 单座减压调节出口压力
Single Seat Reduce valve
2- 弹簧负载式泄压、背压阀
Spring Loading Relief ,Back pressure Valve
3- 大流量弹簧负载式减压阀
Max Cv Reduce valve Spring Loading
4- 气体工业大面积膜片减压、泄压阀
Gas industry Reduce and Reduce valve
5- 大流量 Max. Flow rate

0- 标准 Standard
71- 金属密封双座减压阀 Reducing valve with double seat metal sealing
72- 金属密封双座泄压阀 Relief valve with double seat metal sealing
73- 软密封双座减压阀 Reducing valve with double seat soft sealing
74- 软密封双座泄压阀 Relief valve with double seat soft sealing
81- 金属密封单座减压阀 Reducing valve with single seat metal sealing
82- 金属密封单座泄压阀 Relief valve with single seat metal sealing
83- 软属密封单座减压阀 Reducing valve with single seat soft sealing
84- 软属密封单座泄压阀 Relief valve with single seat soft sealing
备注 /Remark: 71-84 仅限于 R65 系列 /71-84suit for R65 serials

1- 碳钢阀体，铸铁弹簧外壳 Carbon steel valve body, Iron spring
2- 全碳钢 Valve body and actuator in carbon steel
3- 不锈钢阀体，碳钢弹簧外壳 SS valve body, Carbon steel spring
4- 全不锈钢 Valve body and actuator in SS

适用于 R61-R63 系列阀门执行器弹簧范围

1-110 系列	4.5 – 46	Bar g
2-120 系列	2.6- 29.5	Bar g
3-130 系列	1.7 – 22.1	Bar g
4-140 系列	0.7 – 9.2	Bar g
5-150 系列	0.094-2.7	Bar g
6-160 系列	0.0025-0.84	Bar g
7-170 系列	0.0012-0.23	Bar g

适用于 R65 系列阀门执行器弹簧范围

1-310 系列	4.0-26.9	Bar g
2-320 系列	2.0-15.3	Bar g
3-330 系列	0.9-6.8	Bar g
4-340 系列	0.38-2.9	Bar g
5-350 系列	0.0045-1.2	Bar g
6-360 系列	0.0015-0.48	Bar g

适用于 R64 系列阀门执行器弹簧范围

1-210	3.4 to 5.5 mbar
2-220	5.5 to 9.3 mbar
3-230	9.3 to 22.0 mbar
4-240	22.0 to 34.0 mbar
5-250	34.0 to 62.0 mbar
6-260	62.0 to 98.0 mbar
7-270	0.098 to 0.190 bar
8-280	0.190 to 0.300 bar
9-290	0.300 to 0.610 bar

B 为阀内取压（防爆型）
适用于 R6571-R6584 系列

R630 系列自力式调节阀
R630 Series Regulator

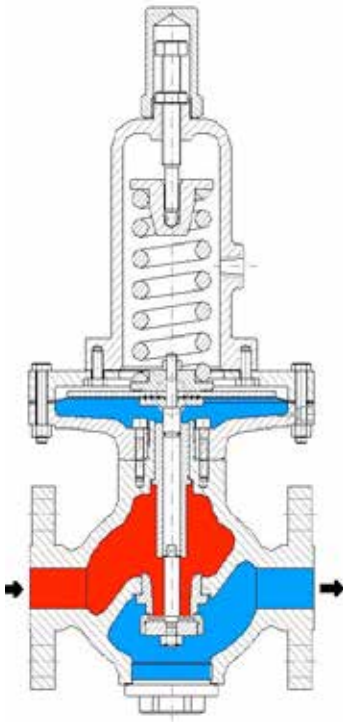
产品特点 Features:

- 流 - 开；
  Flow to open design
- 每个口径有 2 至 8 种不同的可选的 Cv 值保证调节的高精确性；
  From 2 to 8 different Cv's for each size to assure high accuracy in regulation
- 金属或软阀座可选（金属阀座泄漏等级三 / 四级，软阀座泄漏等级五 / 六级，依据 ANSI/FCI 70.2 标准，有 10% 检测误差）；
  Metal or Soft Seat (respectively leakage class III/IV or V/VI according to ANSI/FCI 70.2 measured with 10% offset)
- 阀内取压（也可选阀外）；
  Internal pressure sensing (external on request)
- 无密封填料结构（该结构形式只适用于阀内取压）；
  Packing-less construction (available only with internal pressure sensing)
- 依据所要求的调节范围多种执行器可选；
  Wide range of actuators according to the requested regulation range
- 可选合成橡胶或不锈钢隔膜；
  Wide range of elastomeric diaphragms or in SS
- 可选全封闭结构（适用于危险介质，遵从 ATEX 标准）；
  Fully sealed construction available (suitable for dangerous medium; ATEX compliant)
- 在高压力降时可选平衡式结构；
  Balanced construction available for high pressure drops

规格参数 Specification:

功能 /Function:	减压 /Reducing
阀座类型 Seat type:	单座阀 /Single
尺寸范围 /Size:	1/2'' 到 2" /From 1/2'' up to 2"
阀体材质 Body material:	碳钢，不锈钢和特殊材质 Carbon steel, Stainless steel and Exotic materials
连接形式 /End connections:	法兰（ANSI 或 PN）/Flanged (ANSI or PN)
最高阀体压力 /Max rating:	美标 /ANSI 600
Cv 值 Cv Range:	1.0 到 52.6/From 1.0 up to 52.6
阀芯材质 /Trim materials:	不锈钢和特殊材质 Stainless steel (std.) and Exotic materials
膜片材质 /Diaphragms:	氯丁橡胶，PTFE, FKM, 不锈钢 , 其它， Polychloroprene, PTFE, FKM, Stainless steel, other

R630 系列自力式调节阀
R630 Series Regulator



介质应用类型 Medium & Applications:

气体 Gas	空气，惰性气体，二氧化碳，氧气，氢气，氟气，氨气，制冷气体 Air, inert gas, CO_2, CO, hydrocarbons, O_2, H_2, F, NH_3, Frigorific gas.
蒸汽 Steam	蒸汽，水，酒精蒸汽，有机蒸汽，硫酸 Steam H_2O, alcoholic steams, organic steam, sulphuric acid.
液体 Liquid	水，水溶液，碳氢化合物，酒精，润滑油，导热油，溶剂，制冷液体，丙烯酸化合物 Water, aqueous soluons, hydrocarbons, alcohol, lubrificang oils, diathermic oils, solvents, frigorific fluids, acrylic compounds

技术数据表 /Technical datasheet
流量 Cv 值 /Capacities Cv values

流孔	阀体尺寸									
	1/2"(DN15)		3/4"(DN20)		1"(DN25)		1-1/2"(DN40)		2"(DN50)	
12	1.0	0.52	1.0	0.52	1.0	0.52	1.0	0.52	1.0	0.52
15	4.5	1.7	4.5	1.7	4.5	1.7	4.5	1.7	4.5	1.7
18			8(7.7*)	2.0	8(7.7*)	2.0	8(7.7*)	2.0	8(7.7*)	2.0
22					10(9.5*)	2.5	10(9.5)	2.5	10(9.5)	2.5
26					12.8(12*)	3.0	12.8(12*)	3.0	12.8(12*)	3.0
32							22.2(20*)	3.6	22.2(20*)	3.6
40							32(26.6*)	4.1	32(26.6*)	4.1
48									52.6(305*)	4.7

□ C 橡胶膜片的所有阀体口径对应的 Cv 值 /Cv for all body size with elastomer diaphragm;

■ 金属膜片的所有阀体口径对应的 Cv 值 /Cv for all body size with metal diaphragm;

*100 系列执行器降低的 Cv 值 /Reduced Cv for 100 actuator;

R630 系列自力式调节阀
R630 Series Regulator

执行器可选范围 Actuators operating range

执行器 /Actuator	弹簧弹性范围 /Spring Range	最大容许压力 /Max.Pressure
110	4.5 至 46.0 Barg	52 Barg
120	2.6 至 29.5 Barg	33 Barg
130	1.7 至 22.1Barg	25 Barg
140	0.7 至 9.2 Barg	10 Barg
150	0.094 至 2.7 Barg	3 Barg
160	0.0025 至 0.84 Barg	1 Barg
170	0.0012 至 0.23 Ba g	0.25 Barg

组件材质 Material Combination

阀体 /Valve Body				
	碳钢（AF1/AS1）	全碳钢（AF2/AS2）	316SS(IF2/IS2)	全 316 SS(IF3/IS3)
	0℃ ≤T≤200℃	-29℃ ≤T≤250℃	-29℃ ≤T≤250℃	-29℃ ≤T≤250℃
阀体 Body	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
暗冒口 /Blind head	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
阀芯 /Trim				
阀座 /Seat	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316
旋塞 /Plug	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316	ASTM A-479 316
阀杆 /Stem	ASTM 17-4 PH	ASTM 17-4 PH	ASME A-479 304/ NITRONIC 60	ASME A-479 304/ NITRONIC 60
执行器 /Actuator				
外壳 /Spring Case	ASME SA-278 35	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M
隔膜外套 Diaphragm Case	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
弹簧 /Spring	ASTM A-401	ASTM A-401	ASTM A-401	ASTM A-313 316

备注：CS= 碳钢 , SS= 不锈钢 /Note: SS=Stainless Steel

垫片、密封圈温度限定条件 Gaskets, sealing element

材质 Material	温度范围 Temperature Range
聚四氟乙烯 (PTFE)	-200 至 250°C -200 to 250°C
无石棉 (No asbestos)	-50 至 200°C -50 to 200°C

R630 系列自力式调节阀
R630 Series Regulator

阀芯材质温度限定条件 Temperature range and inlet pressure limits for Disc material

材质 Material	温度 Temperature	Max. Pressure
氟橡胶（FKM-FPM）	-10 至 200°C	40barg
聚四氟乙烯 (PTFE)	-200 至 250°C	200barg
不锈钢	-196 在 455°C	280barg

隔膜材质温度限定条件 Temperature range for Diaphragms

材质 Material	温度范围 Temperature
氢化丁腈橡胶	-20 to 90°C
HNBR	-15 to 120°C
聚四氟乙烯（PTFE）	-10 to 200°C
三元乙丙橡胶（EPDM）	-35 to 160°C
硅胶（VMQ）	-50 to 150°C
氟硅橡胶（FVMQ）	-50 to 150°C
不锈钢	-196 to 455°C

O 型圈材质温度限定条件 Temperature range for O-Rings

材质 Material	温度范围 Temperature
聚四氟乙烯 (PTFE)	-200 to 250°C
氟碳化合物 (FKM-FPM)	-10 to 200°C

不同材质金属部件的温度限定条件 Temperature range for O-Rings

材质 Material	温度范围 Temperature
铸铁 Cast Iron	0 to 232°C
碳钢 Carbon Steel	-29 to 425°C
不锈钢 Stainless Steel	-196 to 455°C

R630 系列自力式调节阀
R630 Series Regulator

弹簧弹性范围 /Spring ranges

弹簧弹性范围基于以下假设
Spring ranges are based on the following assumption:

- 设定点的冲程为 ±3mm
  Stroke from set point is ±3mm
- 最小设定压力有 20% 检测误差
  Offset max 20% for minimum set pressure
- 旋塞上的平衡力较低
  Low balancing forces on the plug

如需求不同的操作条件请联系艾坦姆技术部。

If any different operating conditions are required
Please contact UTM Technical Dept.

* 膜片厚度小 (FKM 0.18mm)，倒置安装。

Thin diaphragm (FKM 0.18mm) and upside down installation.

☐	Up right installation
	竖直安装
■	Upside down installation
	倒置安装

执行器 Actuator	弹簧 Spring	弹簧弹性范围 Spring Ranges			
		最小设定压力 Min. Set Pressure		最大设定压力 Max. Set Pressure	
	名称 Name	Barg	psig	Barg	psig
110	4BIS	4.5	65	8.7	126
	6	7.2	105	14.0	203
	7	10.4	151	21.6	314
	8	14.6	211	23.0	334
	9	22.0	319	34.6	502
	9BIS	27.4	397	37.9	550
	10	34.1	494	41.7	604
	10BIS	37.8	548	46.0	667
120	4BIS	2.6	37	4.1	59
	6	3.8	56	6.6	95
	7	5.3	77	10.1	147
	8	7.3	105	10.8	156
	9	10.8	156	16.2	235
	9BIS	13.3	193	17.8	258
	10	16.4	238	19.5	283
	10BIS	18.1	263	29.5	428
130	4BIS	1.7	25	3.0	44
	6	2.7	39	4.9	71
	7	3.8	55	7.6	110
	8	5.2	76	8.0	116
	9	7.8	113	12.1	175
	9BIS	9.7	141	13.2	192
	10	12.0	174	14.5	211
	10BIS	13.3	193	22.1	320
140	4BIS	0.7	10	1.3	19
	6	1.1	16	2.1	31
	7	1.6	23	3.3	47
	8	2.2	32	3.5	50
	9	3.3	48	5.2	75
	9BIS	4.1	60	5.7	83
	10	5.1	74	6.3	91
	10BIS	5.7	82	9.2	133

R630 系列自力式调节阀
R630 Series Regulator

执行器 Actuator	弹簧 Spring	弹簧弹性范围 Spring Ranges			
		最小设定压力 Min. Set Pressure		最大设定压力 Max. Set Pressure	
	名称 Name	Barg	psig	Barg	psig
150	2bis	0.094	1.36	0.12	1.8
	3	0.106	1.54	0.20	3.0
	4	0.127	1.84	0.24	3.4
	4bis	0.144	2.1	0.37	5.4
	6	0.26	3.8	0.60	8.7
	7	0.40	5.8	0.93	13.4
	8	0.58	8.4	0.99	14.3
	9	0.89	13	1.5	21.5
	9bis	1.1	16	1.6	23.6
	10	1.4	20	1.8	25.9
	10bis	1.6	23	2.7	38.7
160	1*	0.0025	0.036	0.014	0.21
	1 bis	0.015	0.22	0.018	0.25
	2bis	0.019	0.27	0.039	0.56
	3	0.023	0.33	0.063	0.92
	4	0.029	0.42	0.073	1.1
	4bis	0.035	0.50	0.12	1.7
	6	0.071	1.0	0.19	2.7
	7	0.11	1.6	0.29	4.2
	8	0.17	2.4	0.31	4.4
	9	0.27	3.9	0.46	6.7
	9bis	0.34	4.9	0.50	7.3
	10	0.43	6.2	0.55	8.0
	10bis	0.48	6.9	0.84	12.2
170	1*	0.0012	0.017	0.007	0.11
	1bis	0.0059	0.09	0.010	0.14
	2bis	0.0080	0.12	0.021	0.30
	3	0.0100	0.15	0.034	0.50
	4	0.014	0.20	0.04	0.6
	4bis	0.016	0.24	0.06	0.9
	6	0.036	0.5	0.10	1.5
	7	0.06	0.9	0.16	2.3
	8	0.09	1.3	0.17	2.4
	9	0.14	2.1	0.23	3.3

□	Up right installation
	竖直安装
■	Upside down installation
	倒置安装

R630 系列自力式调节阀
R630 Series Regulator

重量 /Weights | 执行器 /Actuator：110、120、130、140

	Class 150 RF	Class 300 RF
DN15(1/2'')	16.5 kg	18.5 kg
DN20(3/4'')	17 kg	19.5 kg
DN25(1'')	17.5 kg	20 kg
DN40(1 1/2'')	20.1 kg	24 kg
DN50(2'')	22 kg	26.3 kg

重量 /Weights | 执行器 /Actuator：150

	Class 150 RF	Class 300 RF
DN15(1/2'')	18.5 kg	20.5kg
DN20(3/4'')	19 kg	21.5kg
DN25(1'')	19.5 kg	22 kg
DN40(1 1/2'')	22.1 kg	26 kg
DN50(2'')	24 kg	28.3kg

重量 /Weights | 执行器 /Actuator：160

	Class 150 RF	Class 300 RF
DN15(1/2'')	33.4 kg	35.4 kg
DN20(3/4'')	33.9 kg	36.4 kg
DN25(1'')	34.4 kg	36.9 kg
DN40(1 1/2'')	37 kg	40.9 kg
DN50(2'')	38.9 kg	43.2 kg

重量 /Weights | 执行器 /Actuator：170

	Class 150 RF	Class 300 RF
DN15(1/2'')	23.7 kg	25.7 kg
DN20(3/4'')	24.2 kg	26.7 kg
DN25(1'')	24.7 kg	27.2 kg
DN40(1 1/2'')	27.3 kg	31.2 kg
DN50(2'')	29.2 kg	33.5 kg

R630 系列自力式调节阀
R630 Series Regulator

Parts list:

1 – 密封旋塞 Plug

2 – 垫圈 Gasket

3 – 密封圈 Seal

4 – 旋塞密封 Plug Seal

5 – 阀座 Seat

6 – 阀体 Body

7 – 阀杆 Stem

8 – 阀杆导向衬套 Guide Bushing

9 – 垫圈 Gasket

10– 螺丝 Screw

11– 执行器膜片外壳（下部）
Diaphragm case (Lower)

12— 膜片 Diaphragm

13 – 执行器膜片外壳（上部）
Diaphragm case (Upper)

14 – 垫圈 Gasket

15 – 弹簧外壳 Spring Case

16 – 弹簧 Spring

17 –O 型密封圈 O-Ring

18 –O 型密封圈 O-Ring

19 – 阀帽 Cap

20 – 调节螺丝 Adjusting screw

21 – 调节螺丝防松螺母
Adjusting screw locknut

22 – 垫圈 Gaskets

23 – 弹簧负载 Spring Loader

24 – 滚珠 Ball

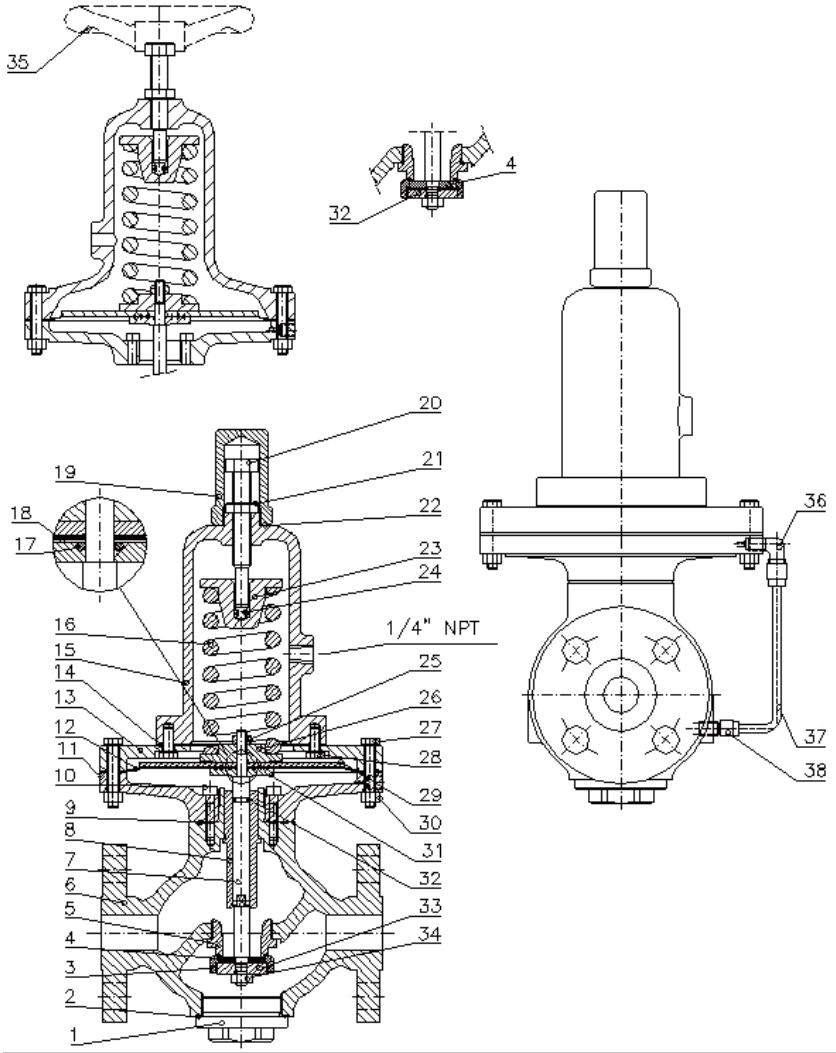
25 – 螺母 Nut

26 – 弹簧扣 Spring button

27 – 螺丝 Screw

28 – 螺丝 Screw

29 – 膜片压盘（上部）
Diaphragm plate (upper)



30- 螺母 Nut

31- 膜片压盘（下部）
Diaphragm plate (lower)

32- O 型密封圈 O-Ring

33- 旋塞密封支架 Plug seal holder

34- 螺母 Nut

35- 手轮 Hand Wheel

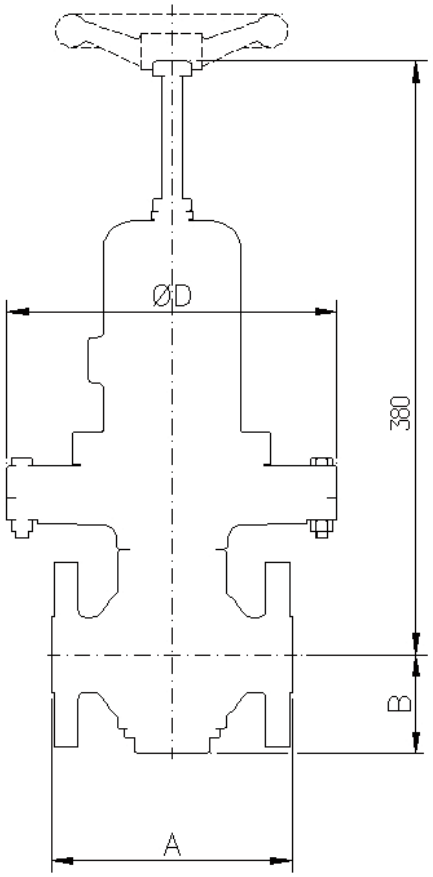
36- 连接件 Fittings

37- 取压管 Sensing Pipe

38- 连接件 Fittings

R630 系列自力式调节阀
R630 Series Regulator

R630 系列阀门剖面图 /Sectional drawing of R630 series

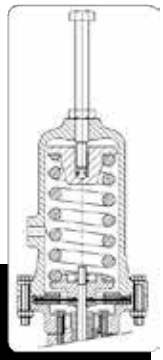


阀体尺寸和端面距离 / Body sizes and face to face dimensions

尺寸 /Size	A				B
	ANSI 150RF	ANSI 300RF	ANSI		所有连接方式 All Connections
			ANSI 600RF	ANSI 600RJ	
1/2″（DN15）	184mm	190mm	203mm		66mm
3/4″（DN20）		194mm	206mm		
1″（DN25）		197mm	210mm		
1 1/2″（DN40）	222mm	235mm	251mm		82mm
2″（DN50）	254mm	267mm	286mm	289mm	
阀体直径和端面距离符合 ISA 工业标准 Body Size and Face to face according to ISA standard					

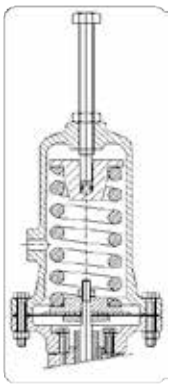
R630 系列自力式调节阀
R630 Series Regulator

执行机构 /Actuator



110/120

130



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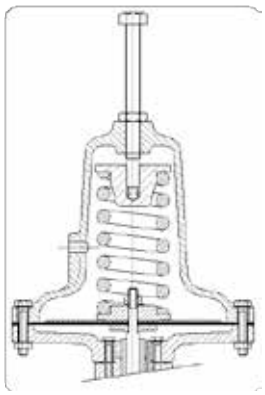

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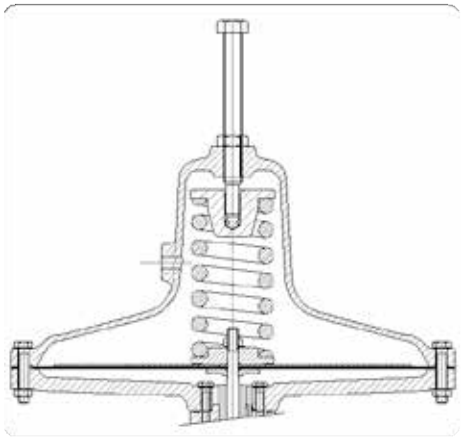

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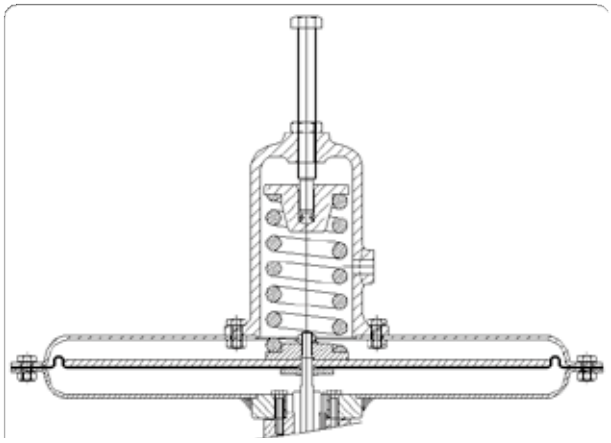

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执行器 /Actuator	外径 /Outer Diameter	表面积 /Surface Size
	mm	cm²
110	132	9.7
120	132	20.7
130	132	27.8
140	140	64.5
150	220	226.5
160	360	730.1
170	480	1346

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Utmost®

品质与艺术完美结合

艾坦姆自力式调节阀

Utmost® Regulators

艾坦姆自力式调节阀

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艾坦姆自力式调节阀
Utmost® Regulators

R6	1	0	1	1	B

艾坦姆自力式调节阀
Utmost® Regulator

1- 单座减压调节出口压力
Single Seat Reduce valve
2- 弹簧负载式泄压、背压阀
Spring Loading Relief ,Back pressure Valve
3- 大流量弹簧负载式减压阀
Max Cv Reduce valve Spring Loading
4- 气体工业大面积膜片减压、泄压阀
Gas industry Reduce and Reduce valve
5- 大流量 Max. Flow rate

0- 标准 Standard
71- 金属密封双座减压阀 Reducing valve with double seat metal sealing
72- 金属密封双座泄压阀 Relief valve with double seat metal sealing
73- 软密封双座减压阀 Reducing valve with double seat soft sealing
74- 软密封双座泄压阀 Relief valve with double seat soft sealing
81- 金属密封单座减压阀 Reducing valve with single seat metal sealing
82- 金属密封单座泄压阀 Relief valve with single seat metal sealing
83- 软属密封单座减压阀 Reducing valve with single seat soft sealing
84- 软属密封单座泄压阀 Relief valve with single seat soft sealing
备注 /Remark: 71-84 仅限于 R65 系列 /71-84suit for R65 serials

1- 碳钢阀体，铸铁弹簧外壳 Carbon steel valve body, Iron spring
2- 全碳钢 Valve body and actuator in carbon steel
3- 不锈钢阀体，碳钢弹簧外壳 SS valve body, Carbon steel spring
4- 全不锈钢 Valve body and actuator in SS

适用于 R61-R63 系列阀门执行器弹簧范围

1-110 系列	4.5 – 46	Bar g
2-120 系列	2.6- 29.5	Bar g
3-130 系列	1.7 – 22.1	Bar g
4-140 系列	0.7 – 9.2	Bar g
5-150 系列	0.094-2.7	Bar g
6-160 系列	0.0025-0.84	Bar g
7-170 系列	0.0012-0.23	Bar g

适用于 R65 系列阀门执行器弹簧范围

1-310 系列	4.0-26.9	Bar g
2-320 系列	2.0-15.3	Bar g
3-330 系列	0.9-6.8	Bar g
4-340 系列	0.38-2.9	Bar g
5-350 系列	0.0045-1.2	Bar g
6-360 系列	0.0015-0.48	Bar g

适用于 R64 系列阀门执行器弹簧范围

1-210	3.4 to 5.5 mbar
2-220	5.5 to 9.3 mbar
3-230	9.3 to 22.0 mbar
4-240	22.0 to 34.0 mbar
5-250	34.0 to 62.0 mbar
6-260	62.0 to 98.0 mbar
7-270	0.098 to 0.190 bar
8-280	0.190 to 0.300 bar
9-290	0.300 to 0.610 bar

B 为阀内取压（防爆型）
适用于 R6571-R6584 系列

R640 系列自力式调节阀
R640 Series Regulator

产品特点 Features:

- 流－开或流关（取决于应用功能）；
  Flow to open or close design (depending from function)
- 阀内取压；
  Internal pressure sensing
- 弹性单座阀
  Resilient Single Seat
- 合成橡胶隔膜；
  Elastomeric Diaphragm
- 可随意转动阀体简化安装；
  Possibility to turn the body in different position simplifying the installation
- 根据手杆的位置不同，阀门可用于减压或泄压；
  According to lever position the regulator can act as reducing or relief regulator

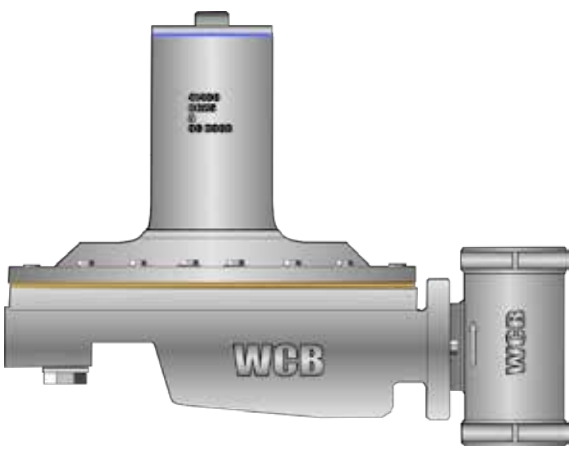
规格参数 Specification

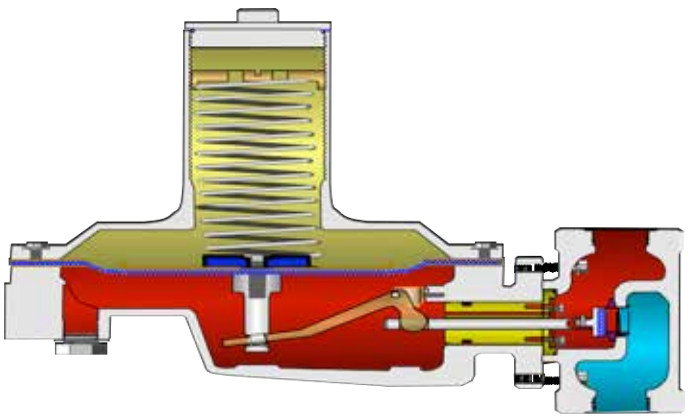
功能 /Function:	减压和泄压 /Reducing and Relief
阀座类型 Seat type:	单座阀 /Single
尺寸范围 /Size:	1/2'' 到 2" /From 1/2'' up to 2"
阀体材质 Body material:	碳钢，不锈钢 /Carbon steel, Stainless steel
连接形式 /End connections:	螺纹 (F-NPT 或燃气)Threaded (F-NPT or GAS/Bs) **最**
高阀体压力 /Max rating:	美标 /ANSI 1500
Cv 值 Cv Range:	0.04 到 4.9/From 0.04 up to 4.9
阀芯材质 /Trim materials:	不锈钢 /Stainless steel (std.)
膜片材质 /Diaphragms:	NBR

介质应用类型 /Medium & Applications

空气，惰性气体，二氧化碳，氧气，氢气，氟气，氨气，制冷气体

Air, inert gas, CO_2, CO, hydrocarbons, O_2, H_2, F, NH_3, frigorific gas





R640 系列自力式调节阀
R640 Series Regulator

技术数据表 /Technical datasheet

减压阀 Cv 值 Cv values for all body sizes in reducing service

流孔	阀体尺寸			
	1/2"	3/4"	1"	1 1/2"
1	0.04	0.04	0.04	0.04
2	0.10	0.10	0.10	0.10
3	0.34	0.34	0.34	0.34
4	0.75	0.75	0.75	0.75
5	0.94	0.94	0.94	0.94
6	1.38	1.38	1.38	1.38
7	1.90	1.90	1.90	1.90
8	2.45	2.45	2.45	2.45
9	2.80	2.80	2.80	2.80
10	3.14	3.14	3.14	3.14
11	3.55	3.55	3.55	3.55
12	3.82	3.82	3.82	3.82
13		4.00	4.00	4.00
14		4.50	4.50	4.50
15		4.95	4.90	4.90

■ 标准流孔 /Standard Nozzles

减压阀 Cv 值 Cv values for all body sizes in reducing service

流孔	阀体尺寸			
	1/2"	3/4"	1"	1 1/2"
1	0.04	0.04	0.04	0.04
2	0.17	0.17	0.17	0.17
3	0.38	0.38	0.38	0.38
4	0.75	0.75	0.75	0.75
5	0.95	0.95	0.95	0.95
6	1.39	1.39	1.39	1.39
7	1.88	1.88	1.88	1.88
8	2.50	2.50	2.50	2.50
9	2.96	2.96	2.96	2.96
10	3.40	3.40	3.40	3.40
11	3.75	3.75	3.75	3.75
12	3.95	3.95	3.95	3.95
13		4.15	4.15	4.15
14		4.40	4.40	4.40
15		4.86	4.90	4.90

■ 标准流孔 /Standard Nozzles

R640 系列自力式调节阀
R640 Series Regulator

DN 15, DN 20, DN 25, DN 40 的流量 | 减压
Capacities for DN 15, DN 20, DN 25, DN 40 | Reducing service

DN 15, DN 20, DN 25, DN 40 的流量 /Capacities for DN15-DN20-DN25-DN40								
Outlet Pressure Spring Code (出口压力弹簧型号)	Off Set From Set point (设定点误差)	Outlet Pressure setting (出口压力设定) barg	Max. inlet Pressure (Barg) 最大设定压力	空气状态流量 (Nm3/h) CAPACITIES IN Nm3/h (SCFH) OF AIR				
				流孔尺寸 Orifice Size, (mm)				
				1	2	4	8	14
3.4 至 5.5 mbar (1.4 至 2.2 inches w.c.) 43 12 64002	1 mbar 0.4 inches w.c.)	3.4 mbar 1.4 inches w.c.)	0.11	0.265	0.719	5.711	18.655	34.264
			0.3	0.508	1.284	9.630	31.457	
			1.3	1.173	2.931	21.986		
			5.60	3.756	9.390			
			10.00	6.500				
		5.5 mbar 2.2 inches w.c.)	0.11	0.262	0.711	5.569	18.487	33.957
			0.30	0.506	1.281	9.604	31.372	
			1.30	1.172	2.931	21.981		
			5.60	3.755	9.389			
			10.00	6.499				
5.5 至 9.3 mbar (2.2 至 3.7 inches w.c.) 43 12 64003	2 mbar 0.8 inches w.c.)	5.5 mbar 2.2 inches w.c.)	0.13	0.292	0.792	6.183	20.189	37.098
			0.40	0.597	1.493	11.195	36.570	
			1.60	1.338	3.345	25.091		
			6.50	4.316	10.790			
			10.00	6.499				
		9.3 mbar 3.7 inches w.c.)	0.13	0.287	0.779	6.098	19.920	36.588
			0.40	0.595	1.448	11.157	36.447	
			1.60	1.338	3.345	25.086		
			6.50	4.315	10.786			
			10.00	6.498				
9.3 至 22 mbar (8.8 至 13.6 inches w.c.) 43 12 64005	5 mbar 2 inches w.c.)	9.3 mbar 3.7 inches w.c.)	0.21	0.396	1.053	7.896	25.794	47.377
			0.60	0.744	1.859	13.941	45.540	
			2.60	1.885	4.712	35.338		
			10.00	6.498	16.244			
		22 mbar 8.8 inches w.c.)	0.21	0.382	1.024	7.683	25.098	46.099
			0.60	0.739	1.847	13.853	45.252	
			2.60	1.880	4.700	35.252		
			10.00	6.494	16.234			

R640 系列自力式调节阀
R640 Series Regulator

DN 15, DN 20, DN 25, DN 40 的流量 | 减压
Capacities for DN 15, DN 20, DN 25, DN 40 | Reducing service

DN 15, DN 20, DN 25, DN 40 的流量 /Capacities for DN15-DN20-DN25-DN40								
Outlet Pressure Spring Code (出口压力弹簧型号)	Off Set From Set point (设定点误差)	Outlet Pressure setting (出口压力设定) barg	Max. inlet Pressure (Barg) 最大设定压力	空气状态流量 (Nm3/h) CAPACITIES IN Nm3/h (SCFH) OF AIR				
				流孔尺寸 Orifice Size, (mm)				
				1	2	4	8	14
22 至 34mbar (8.8 至 13.6 inches w.c.) 43 12 64006	8 mbar 3.15 inches w.c.)	22 mbar 8.8 inches w.c.)	0.25	0.432	1.131	8.480	27.703	50.883
			0.80	0.872	2.180	16.352	53.415	
			3.20	2.255	5.638	42.284		
			10.00	6.494	16.234			
		34 mbar 13.6 inches w.c.)	0.25	0.420	1.106	8.295	27.097	49.770
			0.80	0.869	2.172	16.289	53.211	
			3.20	2.251	5.627	42.204		
			10.00	6.490	16.224			
34 至 62mbar (13.6 至 25 inches w.c.) 43 12 64007	17 mbar 6.8 inches w.c.)	34 mbar 13.6 inches w.c.)	0.30	0.480	1.231	9.233	30.160	55.395
			0.90	0.932	2.330	17.474	57.080	
			3.70	2.563	6.407	48.052		
			10.00	6.490	16.224			
		62 mbar 25 inches w.c.)	0.30	0.453	1.177	8.831	28.849	52.987
			0.90	0.925	2.312	17.341	56.647	
			3.70	2.553	6..382	47.868		
			10.00	6.481	16.202			
62 至 98 mbar (25 至 39 inches w.c.) 43 12 64008	26 mbar 6.8 inches w.c.)	62 mbar 25 inches w.c.)	0.50	0.647	1.231	9.233	30.160	55.395
			1.50	1.278	2.330	17.474	57.080	
			6.30	4.172	6.407	48.052		
			10.00	6.481	16.224			
		98 mbar 39 inches w.c.)	0.50	1.273	1.177	8.831	28.849	52.987
			1.50	1.273	2.312	17.341	56.647	
			6.30	4.160	6..382	47.868		
			10.00	6.481	16.202			

R640 系列自力式调节阀
R640 Series Regulator

DN 15, DN 20, DN 25, DN 40 的流量 | 泄压
Capacities for DN 15, DN 20, DN 25, DN 40 | Relief service

Outlet Pressure Spring Code (出口压力弹簧型号)	Off Set From Set point (设定点误差)	Outlet Pressure setting (出口压力设定)	空气状态流量 (Nm3/h) CAPACITIES IN Nm3/h (SCFH) OF AIR				
			流孔尺寸 Orifice Size, (mm)				
			1	2	4	8	14
3.4 至 5.5 mbar (1.4 至 2.2 inches w.c.) 43 12 64002	1 mbar 0.4 inches w.c.)	3.4 mbar 1.4 inches w.c.)	0.031 1.14	0.161 6.01	0.843 31.48	3.124 116.59	5.718 213.41
		5.5 mbar 2.2 inches w.c.)	0.042 1.56	0.216 8.06	1.116 41.66	4.100 153.02	7.479 279.17
5.5 至 9.3 mbar (2.2 至 3.7 inches w.c.) 43 12 64003	2 mbar 0.8 inches w.c.)	5.5 mbar 2.2 inches w.c.)	0.042 1.56	0.216 8.06	1.116 41.66	4.100 153.02	7.479 279.17
		9.3 mbar 3.7 inches w.c.)	0.058 2.18	0.297 11.07	1.513 56.48	5.513 205.77	9.844 367.45
9.3 至 22 mbar (8.8 至 13.6 inches w.c.) 43 12 64005	5 mbar 2 inches w.c.)	9.3 mbar 3.7 inches w.c.)	0.058 2.18	0.297 11.07	1.513 56.48	5.513 205.77	9.844 367.45
		22 mbar 8.8 inches w.c.)	0.100 3.73	0.496 18.53	2.487 92.83	8.606 321.22	15.147 565.35
22 至 34mbar (8.8 至 13.6 inches w.c.) 43 12 64006	8 mbar 3.15 inches w.c.)	22 mbar 8.8 inches w.c.)	0.100 3.73	0.496 18.53	2.487 92.83	8.606 321.22	15.147 565.35
		34 mbar 13.6 inches w.c.)	0.131 4.88	0.643 24.01	3.197 119.33	10.703 399.48	18.837 703.09
34 至 62mbar (13.6 至 25 inches w.c.) 43 12 64007	17 mbar 6.8 inches w.c.)	34 mbar 13.6 inches w.c.)	0.131 4.88	0.643 24.01	3.197 119.33	10.703 399.48	18.837 703.09
		62 mbar 25 inches w.c.)	0.189 7.06	0.920 34.34	4.340 161.99	14.67 539.97	25.461 950.35
62 至 98mbar (25 至 39 inches w.c.) 43 12 64008	26 mbar 10.24 inches w.c.)	62 mbar 25 inches w.c.)	0.189 7.06	0.920 34.34	4.340 161.99	14.67 539.97	25.461 950.35
		98 mbar 39 inches w.c.)	0.251 9.37	1.211 45.21	5.464 203.96	18.214 679.86	32.057 1196.55
98 至 190mbar 43 12 64009	50 mbar 50 mbar	98 mbar	0.251 9.37	1.211 45.21	5.464 203.96	18.214 679.86	32.057 1196.55
		190 mbar	0.380 14.19	1.733 64.67	7.644 285.31	25.479 951.03	44.844 1673.81
190 至 300mbar 43 12 64010	77 mbar	190 mbar	0.380 14.19	1.733 64.67	7.644 285.31	25.479 951.03	44.844 1673.81
		300 mbar	0.511 19.07	2.192 81.82	9.671 360.99	32.238 1203.30	56.739 2118.81

R640 系列自力式调节阀
R640 Series Regulator

组件材质

Material Combination

阀体 /Valve Body		
	碳钢（AS2）*	316SS(IS1)**
	-18℃ ≤T≤90℃	-18℃ ≤T≤90℃
阀体 Body	ASME SA-216 WCC	ASME SA-351 CF8M
螺栓 /Studs	CLASS 8.8 EN 20898 -1	EN ISO 3506-2 A4-70
阀芯 /Trim		
阀座 /Seat	ASTM A-479 316	ASTM A-479 316
活塞 Piston Stem	ASTM A-479 316	ASTM A-479 316
活塞杆垫片 Piston Gaskets	NBR	NBR
导向套 /Guide Bush	DELRIN	DELRIN
执行器 /Actuator		
弹簧外壳 /Spring Case	ASME SA-216 WCC	ASME SA-216 WCC
执行器膜片外壳 / Actuator diaphragm Case	ASME SA-216 WCC	ASME SA-351 CF8M
弹簧 /Spring	ASTM A-401	ASTM A-401

减压时最大入口压力 Maximum Operating Inlet Pressures for reducing service

流孔尺寸 Orifice Size	最大入口压力 /Barg/Max. inlet Pressure			
	0.0034 to 0.0055	0.0055 to 0.0093	0.0093 to 0.0220	0.0220to 0.0340
1	10.00	10.00	10.00	10.00
2	5.60	6.50	10.00	10.00
4	1.30	1.60	2.60	3.20
8	0.30	0.40	0.60	0.80
14	0.11	0.13	0.21	0.25

泄压时最大入口压力 Maximum Operating Inlet Pressures for relief service

流孔尺寸 Orifice Size	最大入口压力 Barg/Max. inlet Pressure				
	0.034 to 0.062	0.062 to 0.098	0.098 to 0.190	0.190 to 0.300	0.300 to 0.610
1	10.00	10.00	10.00	10.00	10.00
2	10.00	10.00	10.00	10.00	10.00
4	3.70	10.00	10.00	10.00	10.00
8	0.90	1.50	2.50	2.70	5.00
14	0.30	0.50	0.80	0.80	1.60

R640 系列自力式调节阀
R640 Series Regulator

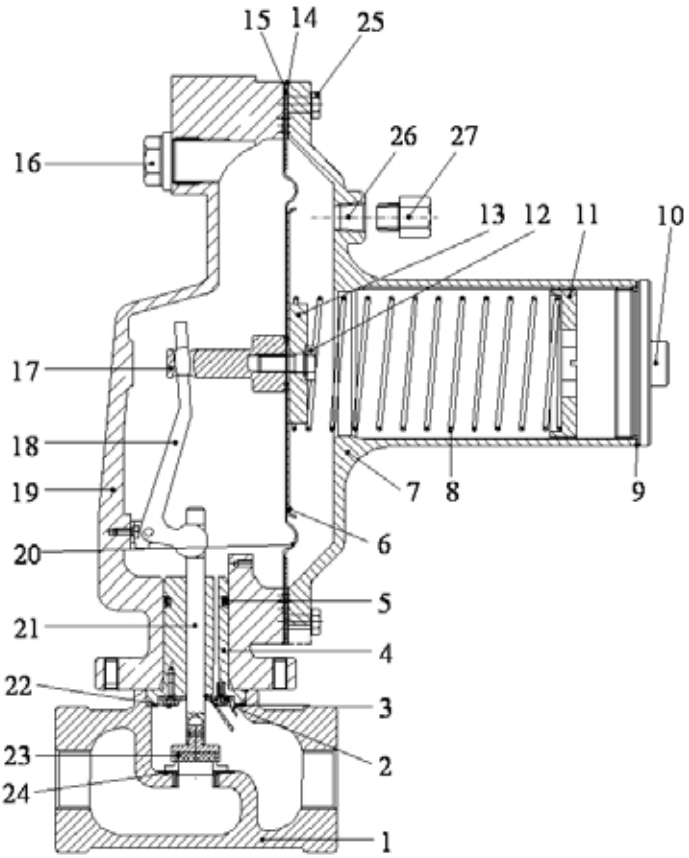
橡胶阀瓣和膜片的温度限定条件
Temperature range for Disc elastomer and Diaphragms

材质 Material	Allowable Temperature 温度范围
NBR	-18 to 90°C

弹簧弹性范围 Spring ranges

弹簧 /Spring	弹簧范围 /Spring Ranges
210	3.4 to 5.5 mbar
220	5.5 to 9.3 mbar
230	9.3 to 22.0 mbar
240	22.0 to 34.0 mbar
250	34.0 to 62.0 mbar
260	62.0 to 98.0 mbar
270	0.098 to 0.190 bar
280	0.190 to 0.300 bar
290	0.300 to 0.610 bar

R640 系列自力式调节阀
R640 Series Regulator



* 推荐备件
*Recommend Spare Parts

Parts list:

1 – 阀体 Body

2 - 螺丝 Screw

3 – 压力检测 Pressure Sensing*

4 – 导向套 Stem Guide

5 –O 型密封圈 O-Ring

6 – 膜片压盘（上）Diaphragm Plate(Upper)*

7 – 弹簧外壳 Spring case

8 – 弹簧 Spring

9 – 垫圈 Gasket

10– 弹簧外壳盖 Spring case Cap

11– 调节螺丝密封圈 Adjust screw ring

12— 螺丝 Screw

13 – 弹簧扣（上部）Spring button (Upper)

14 – 垫圈 Gasket

15 – 膜片环 Diaphragm Ring

16 – 螺丝 Screw

17 – 阀杆 - 膜片接口 Stem diaphragm connection

18 – 杠杆 Lever

19 – 执行器膜片外壳 Actuator diaphragm case

20 – 膜片 Diaphragm

21 – 阀杆 Stem

22 – 垫圈 Gasket

23 – 旋塞 Plug

24 – 阀座 Seat

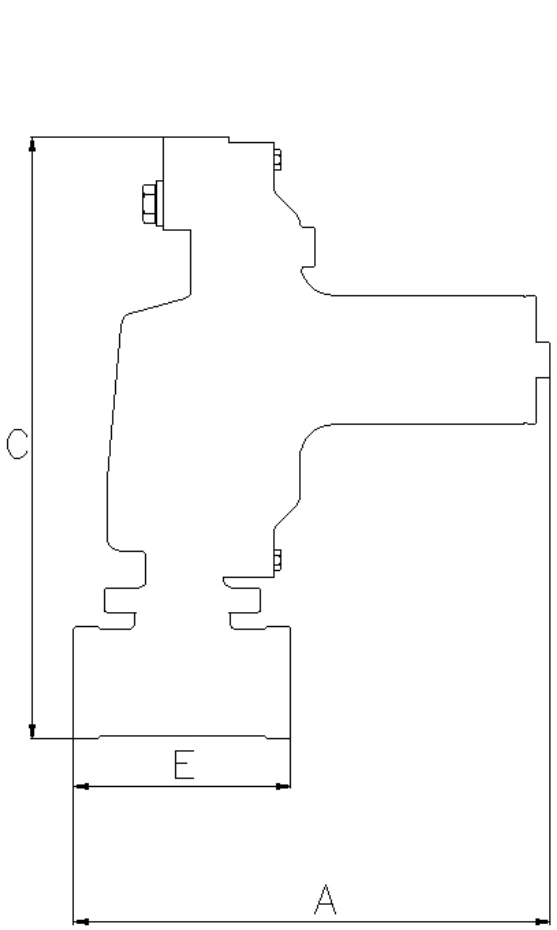
25 – 螺丝 Screw

26 – 通风孔 Hole Vent

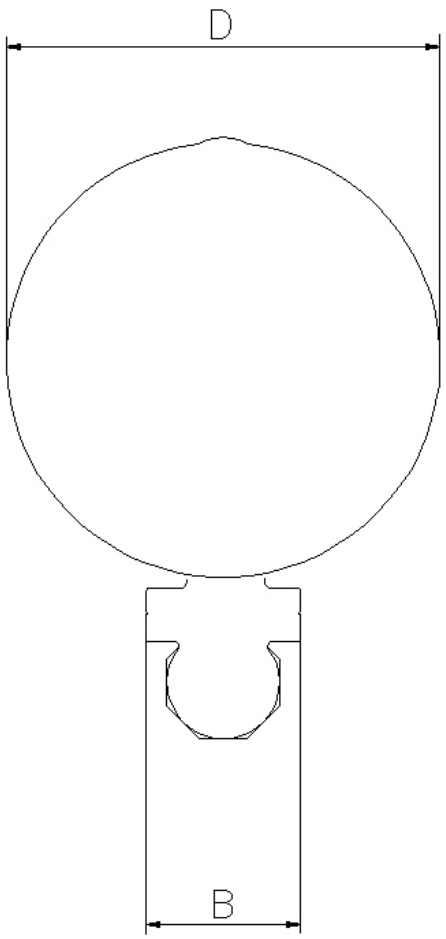
27 – 旋塞通风孔 Plug Vent

R640 系列自力式调节阀
R640 Series Regulator

R640 系列阀门剖面图 Sectional drawing of R640 series



法兰连接剖面图



螺纹连接剖面图

阀体尺寸和端面距离 / Body sizes and face to face dimensions

Size(DN)	Threaded				
	NPT-F BSP-F				
	A	B	C	ØD	E
1/2'' DN15	305mm	89mm	345.5mm	250mm	122mm
3/4'' DN20					
1'' DN25					
1 1/2'' DN40					

不仅仅是性能卓越的产品 . . . . . .
艾坦姆还通过技术方案和综合的售后服务体系，
增强产品价值，为您的工厂提供全面支持！

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Annoucement: The data of this brochure comes from standard valve in theory and measurement, data updates without notice.

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Utmost®

品质与艺术完美结合

艾坦姆自力式调节阀

Utmost® Regulators

艾坦姆自力式调节阀

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艾坦姆自力式调节阀
Utmost® Regulators

R6	1	0	1	1	B

艾坦姆自力式调节阀
Utmost® Regulator

1- 单座减压调节出口压力
Single Seat Reduce valve
2- 弹簧负载式泄压、背压阀
Spring Loading Relief ,Back pressure Valve
3- 大流量弹簧负载式减压阀
Max Cv Reduce valve Spring Loading
4- 气体工业大面积膜片减压、泄压阀
Gas industry Reduce and Reduce valve
5- 大流量 Max. Flow rate

0- 标准 Standard
71- 金属密封双座减压阀 Reducing valve with double seat metal sealing
72- 金属密封双座泄压阀 Relief valve with double seat metal sealing
73- 软密封双座减压阀 Reducing valve with double seat soft sealing
74- 软密封双座泄压阀 Relief valve with double seat soft sealing
81- 金属密封单座减压阀 Reducing valve with single seat metal sealing
82- 金属密封单座泄压阀 Relief valve with single seat metal sealing
83- 软属密封单座减压阀 Reducing valve with single seat soft sealing
84- 软属密封单座泄压阀 Relief valve with single seat soft sealing
备注 /Remark: 71-84 仅限于 R65 系列 /71-84suit for R65 serials

1- 碳钢阀体，铸铁弹簧外壳 Carbon steel valve body, Iron spring
2- 全碳钢 Valve body and actuator in carbon steel
3- 不锈钢阀体，碳钢弹簧外壳 SS valve body, Carbon steel spring
4- 全不锈钢 Valve body and actuator in SS

适用于 R61-R63 系列阀门执行器弹簧范围

1-110 系列	4.5 – 46	Bar g
2-120 系列	2.6- 29.5	Bar g
3-130 系列	1.7 – 22.1	Bar g
4-140 系列	0.7 – 9.2	Bar g
5-150 系列	0.094-2.7	Bar g
6-160 系列	0.0025-0.84	Bar g
7-170 系列	0.0012-0.23	Bar g

适用于 R65 系列阀门执行器弹簧范围

1-310 系列	4.0-26.9	Bar g
2-320 系列	2.0-15.3	Bar g
3-330 系列	0.9-6.8	Bar g
4-340 系列	0.38-2.9	Bar g
5-350 系列	0.0045-1.2	Bar g
6-360 系列	0.0015-0.48	Bar g

适用于 R64 系列阀门执行器弹簧范围

1-210	3.4 to 5.5 mbar
2-220	5.5 to 9.3 mbar
3-230	9.3 to 22.0 mbar
4-240	22.0 to 34.0 mbar
5-250	34.0 to 62.0 mbar
6-260	62.0 to 98.0 mbar
7-270	0.098 to 0.190 bar
8-280	0.190 to 0.300 bar
9-290	0.300 to 0.610 bar

B 为阀内取压（防爆型）
适用于 R6571-R6584 系列

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

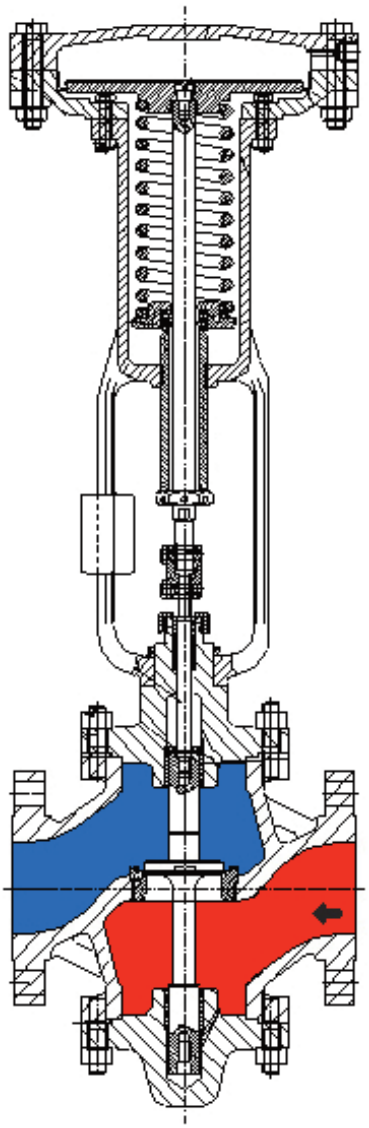
产品特点 Features

- 流 – 开；
  Flow to open design
- ISA 标准结构长度；
  Available with ISA Face to face dimensions
- 每种阀体尺寸有 3 种不同的内件尺寸，可满足生产中的广泛应用
  3 different trim sizes for each body size, to meet a wide range of applications
- 快 - 开型流量特性
  Quick-opening flow characteristics
- 金属或软密封，单或双阀座
  Trim features: Metal or Soft tightness, single or double ported
- 泄漏等级从 II 级到 VI 级 (依据 ANSI/FCI 70.2 标准)
  Leakage Classes range from II up to VI (according to ANSI/FCI 70.2)
- 阀外压力检测
  External pressure sensing
- 阀杆密封填料可选择塑料（唇形密封）或石墨垫圈
  Stem tightness packing is available as elastomeric (lip seal) or graphite gasket
- 可满足所要求的不同调节范围的多种执行器
  Wide range of actuators according to the requested regulation range
- 种类多样的塑料膜片
  Wide range of elastomeric diaphragms

规格参数 Specification

功能 /Function：	减压 – 泄压 / 背压 / Reducing Relief Back pressure
阀座类型 Seat type：	单 / 双座阀 /Single/Double Seat
尺寸范围 /Size：	1'' 到 10"/From 1'' up to10" standard Special Design for 20''
阀体材质 Body material：	碳钢，不锈钢和特殊材质 Carbon steel, Stainless steel and Exotic materials
连接形式 /End connections：	法兰（ANSI 或 PN） Flanged (ANSI or PN)
最高阀体压力 /Max rating：	美标 /ANSI 1500
Cv 值 Cv Range:	6 到 850/From 6 up to 850
阀芯材质 /Trim materials：	不锈钢和特殊材质 Stainless steel (std.) and Exotic materials
膜片材质 /Diaphragms：	氯丁橡胶，PTFE, EPDM,FKM, FVMQ, 其它， Polychloroprene, PTFE, FKM, Stainless steel, other

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators



特殊结构

- → 短时间交货的特殊材质（比如 duplex，superduplex, 合金钢，蒙乃尔等等）
  Exotic materials in short lead times(e.g. duplex, superduplex, alloy steel, monel)
- → 快 - 开型以外的流量特性
  Flow characteristics quick-opening and others is available
- → 阀杆填料使用包裹 PTFE 的垫圈
  Stem packing made of PTFE coated gaskets
- → 阀体尺寸可至 20”
  Body sizes up to DN 20”

介质应用类型　Medium & Applications

气体 Gas	空气，惰性气体，二氧化碳，氧气，氢气，氟气，氨气，制冷气体 Air, inert gas, CO_2, O_2, H_2, F, NH_3, Frigorific Gas
蒸汽 Steam	水蒸气，酒精蒸汽，有机蒸汽，硫酸，制冷蒸汽 Steam, alcoholic vapors, organic vapors, sulphuric acid, refrigerating vapors.
液体 Liquid	水，水溶液，碳氢化合物，酒精，润滑油，导热油，溶剂，制冷液体，丙烯酸化合物 Water, aqueous soluons, hydrocarbons, alcohol, lubrificang oils, diathermic oils, solvents, frigorific fluids, acrylic compounds

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

技术数据表 /Technical datasheet

单座 Cv 值 Capacities Cv values for Single seat valves (R6581,R6582,R6583,R6584)

Trim Size	Seat diameter mm	DN				
		25	40	50	80	100
1/2''	16.5	6				
3/4''	20.5	9	9			
1''	25	13	16	16		
1 1/2''	40		34	40	40	
2''	50			52	62	62
3''	70				110	128
4''	90					180

双座 Cv 值 Capacities Cv values for Double seats valves (R6571,R6572,R6573,R6574)

阀体尺寸 Size	阀座尺寸 Seat diameter	DN mm							
		25	40	50	80	100	150	200	250
1/2''	16.5/14.5	6							
3/4''	20.5/18.5	9	9						
1''	25/23	13	16	18					
1 1/2''	40/38		40	43	43				
2''	50/48			54	63	64			
3''	70/68				112	128	128		
4''	90/88					204	240	240	
6''	135/132						430	440	440
8''	180/177							620	720
10''	225/222								850

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

执行器可选范围 Actuators operating range:

执行器 Actuator	Actuators spring ranges Barg							
	最小 /Min.				最大 /Max.		最大允许压力 Max. allowable Pressure	
	塑料唇形密封 Elastomeric packing (lip seal)		石墨密封 Graphite packing					
310	4.00 barg	58.0psig	12.3barg	178psig	26.9 barg	390 psig	31 barg	445psig
320	2.00 barg	29.0 psig	6.1barg	88psig	15.3 barg	222 psig	17 barg	249 psig
330	0.90 barg	13.1 psig	2.7barg	39psig	6.8 barg	99 psig	7.7 barg	112 psig
340	0.380 barg	5.51 psig	1.1barg	16psig	2.9 barg	42.1 psig	3.2 barg	47.0 psig
350	0.0045 barg	0.07 psig	0.47barg	6.8psig	1.2 barg	17.4 psig	1.8 barg	26.5 psig

备注：Remark:

设定点行程为 ±7mm
Stroke from set point is ±7mm
最小设定压力最大偏差为 33%
Offset max 33% for minimum set pressure
低不平衡压力作用于旋塞
Low unbalancing forces on the plug
金属密封，除非另有规定
Metal tightness, unless otherwise specified
阀座泄露表现不计入最小设定压力评估
Seat leakage performance not taken into account for minimum set pressure evaluation

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

组件材质 Material Combination

阀体 /Valve Body			
	碳钢 Carbon steel (AF2)	不锈钢 316 SS (IF2)	全不锈钢 Full 316 SS (IF3)
	-29°C ≤ T ≤ 427°C	-29°C ≤ T ≤ 540°C	-196°C ≤ T ≤ 540°C
阀体材质 Valve body	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
阀盖材质 Bonnet	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
阀体外壳 Body cover	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
填料 Packing	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
垫片 Gaskets set	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
螺母 /Nuts	ASME SA-194 2H	ASME SA-194 2H	EN ISO 3506-2 A4-70
阀芯 /Trim			
阀座 Seat	ASME SA-479 316	ASME SA-479 316	ASME SA-479 316
旋塞 Plug	ASME SA-479 316	ASME SA-479 316	ASME SA-479 316
导向套 Guiding Bushing	ASTM A-564 17-4PH	ASTM A.276/A-479 UNS S21800	ASTM A.276/A-479 UNS S21800
执行器 /Actuator			
弹簧壳 Spring case	ASME SA-216 WCC	ASME SA-351 CF8M	ASME SA-351 CF8M
下部隔膜壳	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M
Lower diaphragm case	ASME SA-216 WCC	ASME SA-216 WCC	ASME SA-351 CF8M
弹簧 Spring	ASTM A 401	ASTM A 401	ASTM A 401

备注 /Remark:SS= 不锈钢，SS=Stainless Steel;

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

填料材质的温度限定条件 Temperature range for packing materials

材质 Material	温度范围 Temperature
KFM 唇形密封 FKM Lip Seal	-10 to 200°C
石墨 Graphite	-200 to 600°C
PTFE 涂层 aramidic 纤维	-10 to 200°C
PTFE coated aramidic fiber	-200 to 260°C

平衡圈材质的温度限定条件 Temperature range for flat gaskets

材质 Material	温度 Temperature
聚四氟乙烯 (PTFE)	-200 to 250°C
无石棉 No asbestos	-50 to 200°C
石墨 +ANSI316	-200 to 600°C

阀芯材质的温度限定条件 Temperature range for plug seating surface

材质 Material	温度范围 Temperature	阀门型号
不锈钢 Stainless Steel	-196 to 540°C	R671. R672 R681，R682
Stellite 6	-150 to 600°C	
氟橡胶 (FKM-FPM)	-10 to 200°C	R673. R674 R683，R684
氯化丁基橡胶（CR）	-20 to 90°C	
丁腈橡胶 (NBR)	-25 to 90°C	
三元乙丙橡胶 (EPDM)	-35 to 150°C	
硅胶 (VMQ)	-50 to 150°C	
聚四氟乙烯 (PTFE)	-200 to 250°C	R683，R684

膜片材质的温度限定条件 Temperature range for Diaphragms

材质 Material	温度范围 Temperature
氯化丁基橡胶（CR）	-20 to 90°C
NBR	-25 to 90°C
氟橡胶 (FKM-FPM) + polyester	-10 to 150°C
氟橡胶 (FKM-FPM) + polyaramid	-10 to 200°C
三元乙丙橡胶 (EPDM)	-35 to 150°C
氟硅橡胶（FVMQ）	-50 to 150°C

备注 /Remark: 选择膜片须同时考虑介质的温度和化学条件

Diaphragm material selected base on the temperature and composition of the medium.

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

阀体重量 Valve body Weights

型号 Model	尺寸 Size	连接形式 Connections				
		ANSI 150	ANSI 300	ANSI 600	ANSI 900	ANSI1500
		PN10-16	PN25-40		PN160	PN250
R6581-R6582 6583-R6584 (单座阀) (Single Seat)	mm	kg	kg	kg	kg	kg
	25	14	15	16	33	33
	40	23	26	27	46	46
	50	29	31	33	65	65
	80	56	60	63	89	115
	100	74	78	96	89	115
R6571-R6572 6573-R6574 (双座阀) (Double Seats)	25	15	16	16	34	34
	40	27	30	31	50	50
	50	36	38	40	70	70
	80	66	70	73	106	134
	100	99	103	116	174	207
	150	168	182	224	——	——
	200	285	303	421	——	——
	250	430	457	671	——	——

执行机构重量 Actuator Weights

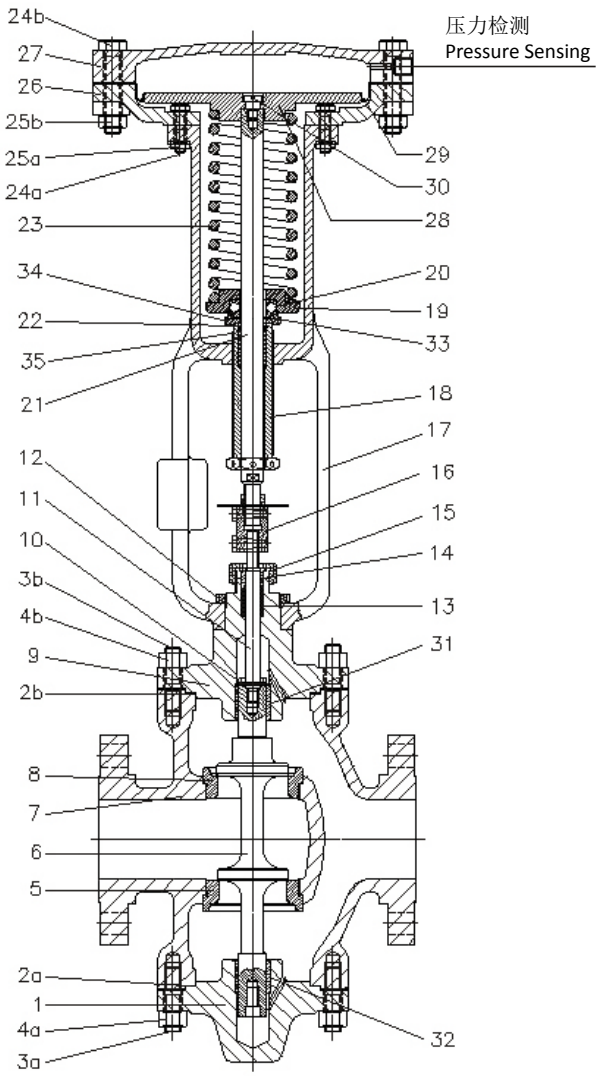
执行机构型号 Actuator Model	重量 Weights
310	32
320	32
330	30
340	35
350	48

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

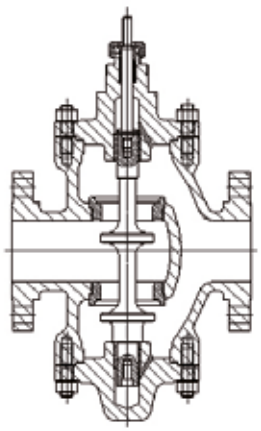
部件列表 Part List:

1- 阀体底盖 Body Cover
2-(a-b) 垫圈 * Gaskets
3-(a-b) 螺栓 Studs
4-(a-b) 螺栓螺母 Studs Nuts
5- 下部阀座 Lower Seat
6- 旋塞 *Plug
7- 阀体 Valve Body
8- 上部阀座 Upper Seat
9- 阀盖 Bonnet
10- 销钉 Pin
11- 阀杆 Stem
12- 执行器紧固环 Actuator Fasten Ring
13- 填料 / 唇形密封 *Packing Lip Seal
14- 压圈 / 唇形密封衬套 Follower Lip Seal Bushing
15- 压圈螺母 Follower Nuts
16- 接头 Joint
17- 支架 Yoke
18- 调节螺丝 Adjusting Screw
19- 下部弹簧垫圈 Lower Spring washer
20- 轴承 Bearing
21- 执行器阀杆 Actuator Stem
22- 平衡凸耳锁紧环 Balanced lug Ciclip
23- 弹簧 Spring
24-(a-b) 螺栓 Bolts
25-(a-b) 螺母 Nuts
26- 下部膜盖 Lower Diaphragm Case
27- 上部膜盖 Upper Diaphragm Case
28- 膜片盘 Diaphragm Plate
29- 膜片 *Diaphragm
30- 螺钉 Screw
31- 上部旋塞导向套 Up Guiding Bushing
32- 下部旋塞导向套 Low Guiding Bushing
33- 轴承圆形接头 Bearing spherical coupling
34- 轴承环 Bearing Ring
35- 调节螺丝衬套 Adjustingcrew bushing

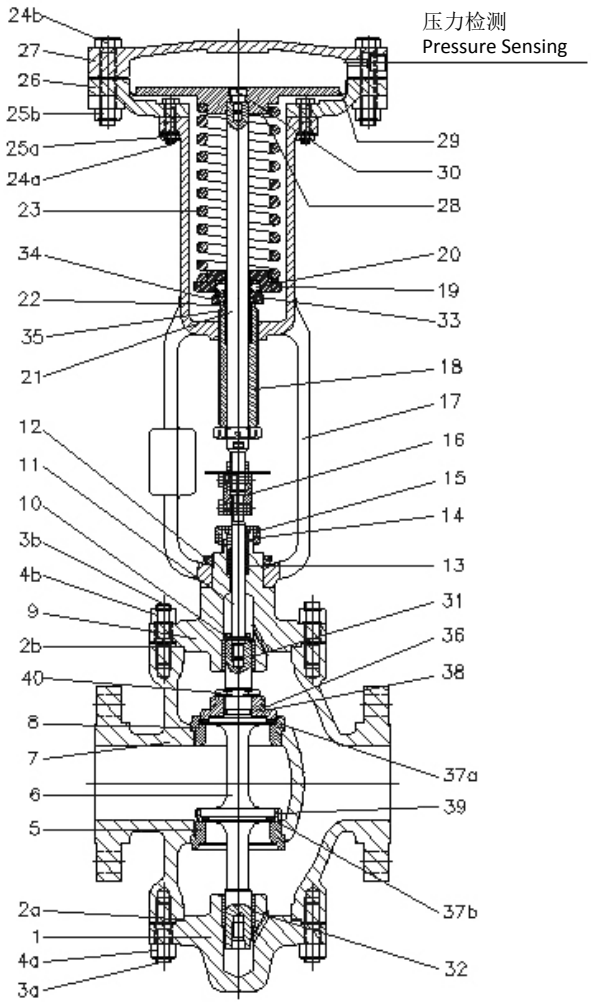
* 推荐备品备件 Recommended spare parts



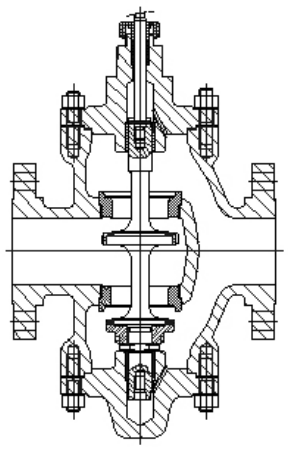
R6571，R6572 剖面图 /Sectional Drawings



R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators



R6573，R6574 剖面图 /Sectional Drawings



部件列表 Part List:

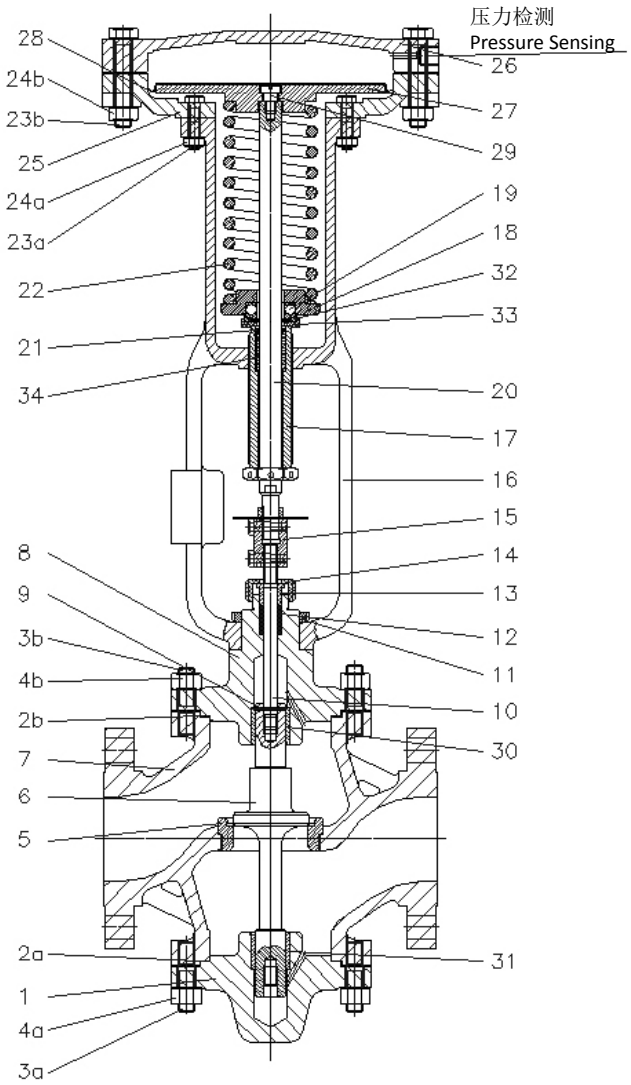
1- 阀体底盖 Body Cover
2-(a-b) 垫圈 * Gaskets
3-(a-b) 螺栓 Studs
4-(a-b) 螺栓螺母 Studs Nuts
5- 下部阀座 Lower Seat
6- 旋塞 *Plug
7- 阀体 Valve Body
8- 上部阀座 Upper Seat
9- 阀盖 Bonnet
10- 销钉 Pin
11- 阀杆 Stem
12- 执行器紧固环 Actuator Fasten Ring
13- 填料 / 唇形密封 *Packing Lip Seal
14- 压圈 / 唇形密封衬套 Follower Lip Seal Bushing
15- 压圈螺母 Follower Nuts
16- 接头 Joint
17- 支架 Yoke
18- 调节螺丝 Adjusting Screw
19- 下部弹簧垫圈 Lower Spring washer
20- 轴承 Bearing
21- 执行器阀杆 Actuator Stem
22- 平衡凸耳锁紧环 Balanced lug Ciclip
23- 弹簧 Spring
24-(a-b) 螺栓 Bolts
25-(a-b) 螺母 Nuts
26- 下部膜盖 Lower Diaphragm Case
27- 上部膜盖 Upper Diaphragm Case
28- 膜片盘 Diaphragm Plate
29- 膜片 *Diaphragm
30- 螺钉 Screw
31- 上部旋塞导向套 Up Guiding Bushing
32- 下部旋塞导向套 Low Guiding Bushing
33- 轴承圆形接头 Bearing spherical coupling
34- 轴承环 Bearing Ring
35- 调节螺丝衬套 Adjustingcrew bushing
36-O 型圈 (*)O-Ring
37- 旋塞垫圈 *Plug gaskets*
38- 旋塞调节密封螺母 Plug adjusting ring nut
39- 旋塞紧固环 Plug fastener ring
40- 锁母 Locknut
* 推荐备品备件 Recommended spare parts

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

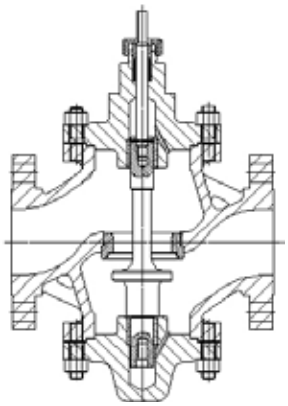
部件清单 Parts list:

1- 阀体底盖 Body Cover
2-(a-b) 垫圈 * Gaskets
3-(a-b) 螺栓 Studs
4-(a-b) 螺栓螺母 Studs Nuts
5- 阀座 Seat
6- 旋塞 *Plug
7- 阀体 Valve Body
8- 阀盖 Bonnet
9- 销钉 Pin
10- 阀杆 Stem
11- 执行器紧固环 Actuator Fasten Ring
12- 填料 / 唇形密封 *Packing Lip Seal
13- 压圈 / 唇形密封衬套 Follower Lip Seal Bushing
14- 压圈螺母 Follower Nuts
15- 接头 Joint
16- 支架 Yoke
17- 调节螺丝 Adjusting Screw
18- 下部弹簧垫圈 Lower Spring washer
19- 轴承 Bearing
20- 执行器阀杆 Actuator Stem
21- 平衡凸耳锁紧环 Balanced lug Ciclip
22- 弹簧 Spring
23-(a-b) 螺栓 Bolts
24-(a-b) 螺母 Nuts
25- 下部膜盖 Lower Diaphragm Case
26- 上部膜盖 Upper Diaphragm Case
27- 膜片盘 Diaphragm Plate
28- 膜片 *Diaphragm
29- 螺钉 Screw
30- 上部旋塞导向套 Up Guiding Bushing
31- 下部旋塞导向套 Low Guiding Bushing
32- 轴承圆形接头 Bearing spherical coupling
33- 轴承环 Bearing Ring
34- 调节螺丝衬套 Adjustingcrew bushing

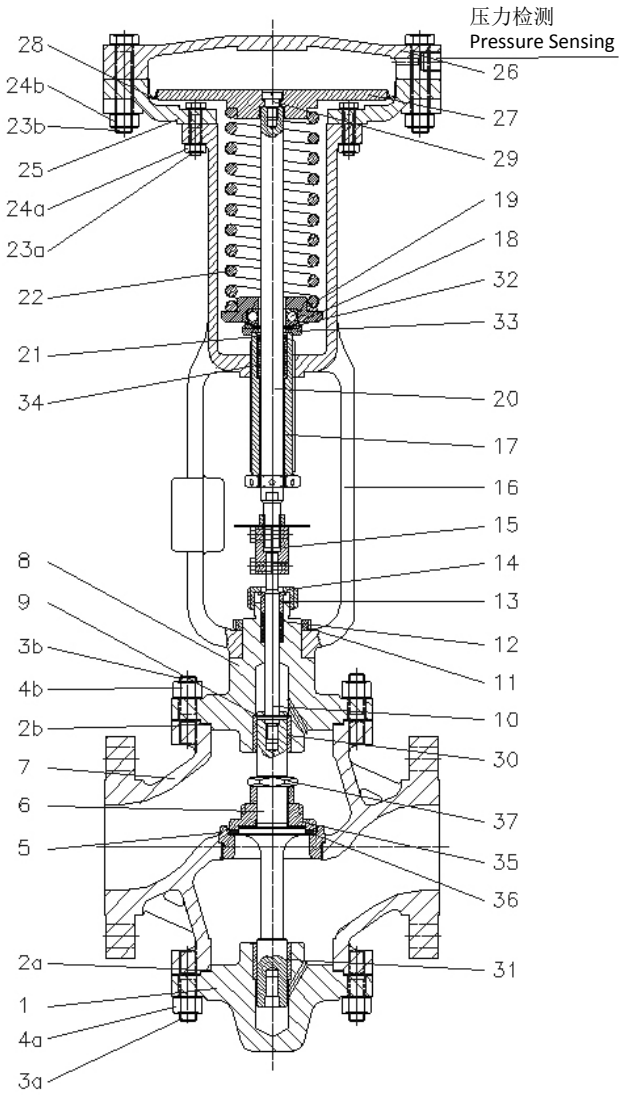
* 推荐备品备件 Recommended spare parts



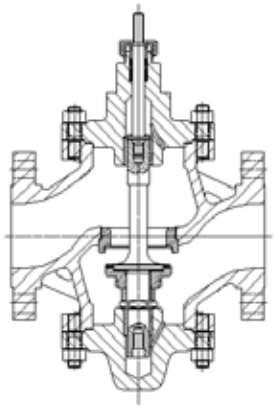
R6581，R6582 剖面图 /Sectional Drawings



R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators



R6583，R6584 剖面图 /Sectional Drawings



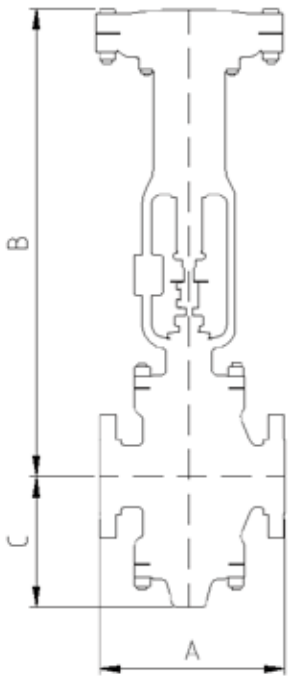
部件列表 Part List:

1- 阀体底盖 Body Cover
2-(a-b) 垫圈 * Gaskets
3-(a-b) 螺栓 Studs
4-(a-b) 螺栓螺母 Studs Nuts
5- 阀座 Lower Seat
6- 旋塞 *Plug
7- 阀体 Valve Body
8- 阀盖 Bonnet
9- 销钉 Pin
10- 阀杆 Stem
11- 执行器紧固环 Actuator Fasten Ring
12- 填料 / 唇形密封 *Packing Lip Seal
13- 压圈 / 唇形密封衬套 Follower Lip Seal Bushing
14- 压圈螺母 Follower Nuts
15- 接头 Joint
16- 支架 Yoke
17- 调节螺丝 Adjusting Screw
18- 下部弹簧垫圈 Lower Spring washer
19- 轴承 Bearing
20- 执行器阀杆 Actuator Stem
21- 平衡凸耳锁紧环 Balanced lug Ciclip
22- 弹簧 Spring
23-(a-b) 螺栓 Bolts
24-(a-b) 螺母 Nuts
25- 下部膜盖 Lower Diaphragm Case
26- 上部膜盖 Upper Diaphragm Case
27- 膜片盘 Diaphragm Plate
28- 膜片 *Diaphragm
29- 螺钉 Screw
30- 上部旋塞导向套 Up Guiding Bushing
31- 下部旋塞导向套 Low Guiding Bushing
32- 轴承圆形接头 Bearing spherical coupling
33- 轴承环 Bearing Ring
34- 调节螺丝衬套 Adjustingcrew bushing
35- 垫圈 *Ggaskets*
36- 旋塞调节密封螺母 Plug adjusting ring nut
37- 锁母 Locknut

* 推荐备品备件 Recommended spare parts

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

R6571—R6574 结构尺寸图 /R6571—R6574 flanged valve dimensional drawing



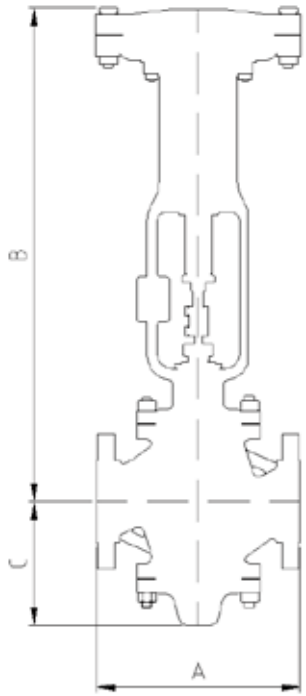
Unit: mm

DN	A								
	ANSI B16.5 - RF					UNI-EN1902-1			
	150	300	600	900	1500	PN10-16	PN25-40	PN160	PN250
25	184	197	210	273		197		273	
40	222	235	251	311		235		311	
50	254	267	286	340		267		340	
80	298	318	337	387	406	318		387	406
100	352	368	394	464	483	352	368	464	483
150	451	473	508			451	473		
200	543	568	610			543	568		
250	673	708	752			673	708		

DN	B		C		
	ANSI150-600	ANSI900-1500	ANSI150-600	ANSI900	ANSI1500
25	737		122	140	
40	755		142	163	
50	765		166	180	
80	810	840	224	225	245
100	850	880	252	265	280
150	890		317		
200	1010		407		
250	1060		460		

R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators

R6581—R6584 结构尺寸图 /R6581—R6584 flanged valve dimensional drawing

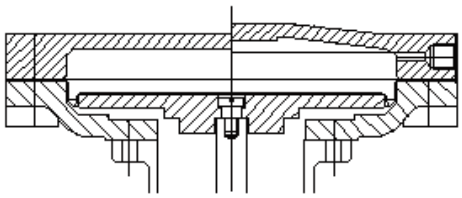


Unit: mm

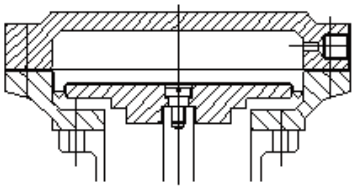
DN	A								
	ANSI B16.5 - RF					UNI-EN1902-1			
	150	300	600	900	1500	PN10-16	PN25-40	PN160	PN250
25	184	197	210	273		197		273	
40	222	235	251	311		235		311	
50	254	267	286	340		267		340	
80	298	318	337	387	406	318		387	406
100	352	368	394	464	483	352	368	464	483
150	451	473	508			451	473		
200	543	568	610			543	568		
250	673	708	752			673	708		

DN	B		C		
	ANSI150-600	ANSI900-1500	ANSI150-600	ANSI900	ANSI1500
25	717		102	120	
40	737		125	145	
50	745		146	160	
80	780	810	194	195	215
100	805	835	207	220	235
150	890		317		
200	1010		407		
250	1060		460		

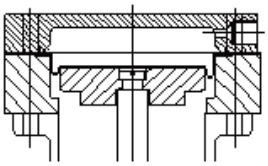
R650 系列自力式弹簧压力调节阀
R650 Series Direct-operated, Spring Pressure Regulators



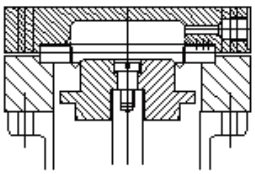
Actuator 350



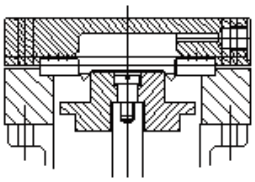
Actuator 340



Actuator 330



Actuator 320



Actuator 310

R6571-R6584 系列执行机构外形尺寸
R6571-R6584 Serials Actuators Dimension

Actuator Type	外径 /Diameter	表面积 /Surface
	mm	cm²
310	175	20.8
320	175	42.4
330	182	95
340	245	226
350	345	545

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Annoucement: The data of this brochure comes from standard valve in theory and measurement, data updates without notice.

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