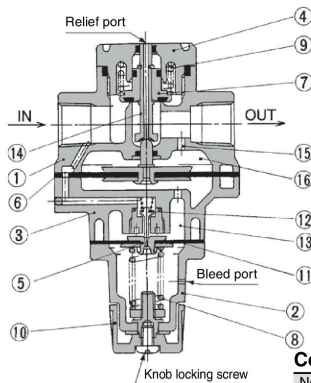


AR425 to 935 Series

Construction



When knob ⑩ is turned clockwise to compress pressure adjustment spring ⑧, the pressure from the IN side passes through diaphragm ⑪, opens pilot valve ⑫, and enters upper pilot chamber ⑬. This pressure and the force generated by pressure adjustment spring ⑧ act as resistance, resulting in equilibrium. Then, this pressure passes through diaphragm ⑥ of the main valve and stem ⑭, and pushes valve (main valve) ⑦ open, thus guiding the pressure to the OUT side. At the same time, the pressure passes through feedback hole ⑮, and enters diaphragm chamber ⑯, thus establishing the OUT side pressure (outlet pressure).

Component Parts

No.	Description	Material	Note
1	Body	Aluminum die-casted *	Platinum silver painted
2	Bonnet	Aluminum die-casted	Platinum silver painted
3	Chamber	Aluminum die-casted	Platinum silver painted
4	Valve guide	Zinc die-casted *	Platinum silver painted

* In the case of AR825/835/925/935, the material is aluminum alloy.

Replacement Parts

No.	Description	Material	Qty.	Part no.			
				AR425, 435	AR625, 635	AR825, 835	AR925, 935
5, 11	Exhaust valve assembly ^{Note)}	—	1	132586A	132586A	132586A	132586A
6	Main valve side diaphragm assembly	—	1	132581A	132659A	13275A	13285A
7	Valve assembly	—	1	132572A	132653A	132752A	132829A
8	Adjusting spring	Steel wire	1	135053 (AR425) 135025 (AR435)	135053 (AR625) 135025 (AR635)	135053 (AR825) 135025 (AR835)	135053 (AR925) 135025 (AR935)
9	Valve spring	Stainless steel	1	135211	132656	132713	13289
10	Knob	ABS	1	13414			

Note) Diaphragm is included.

⚠ Precautions

Be sure to read this before handling the products. Refer to back page 50 for Safety Instructions and pages 387 to 391 for Precautions on every series.

Mounting/Adjustment

⚠ Warning

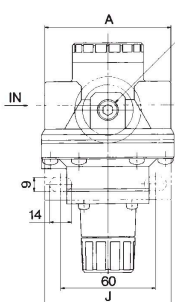
1. Install the valve guide (on the opposite side of the knob) 60 mm away from the ground surface to facilitate maintenance inspection.
2. Do not use the regulator with flow exceeding the Max. flow indicated in "Flow Rate Characteristics" as this can cause failure in pressure adjustment.

⚠ Caution

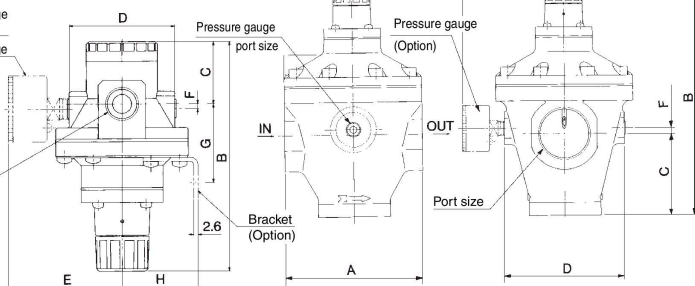
1. Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the knob or cause the outlet pressure to fluctuate.
<Lock operating method>
Loosen the knob locking screw to unlock it, and tighten it to lock it.
2. Please contact SMC if this product is to be used between solenoid valve and actuator.

Dimensions

AR425/435 AR625/635



AR825/835 AR925/935



* For products with pressure gauge, pressure gauges are shipped together with product.

Model	Port size	Pressure gauge port size	Bracket dimensions							Bracket part no.		
			A	B	C	D	E	F	G		H	J
AR425/435	1/4, 3/8, 1/2	1/4	80	145.5	39.5	67	73	3	50.0	48	80	B24P
AR625/635	3/4, 1	1/4	98	155	43	78	78.5	7	85	52	90	B25P
AR825/835	1 1/4, 1 1/2	1/4	126	216	75	110	94.5	5	—	—	—	—
AR925/935	2	1/4	160	241	90	140	109.5	10	—	—	—	—