

# MA-633 Series

## Air Filter Regulator

### General Description

MA-633 Series air filter regulators are used to provide pneumatic measuring and control equipment with a clean and constant pressure air supply.

### Safety Recommendations

#### ⚠ General Information

- Please ensure to read and understand the manual before installation and maintenance.
- The manual should be passed to the end user.
- When the product is not used within its description range, it may cause the product to malfunction so please follow the product manual instructions.

#### ⚠ Handling Precautions

- Do not install, operate or maintain without being fully trained and qualified in valve and accessory installation.
- When exceeding the permitted air pressure range, it may cause injury or property damage due to compressed air explosion. It is very important to carefully read, understand and follow all the contents of this product manual.
- To avoid the inflow of excessive air to the actuator, it is highly recommended to install an air filter regulator in front of a volume booster.

#### ⚠ User Environment

- Do not use in corrosive environments.
- When used in environments that are higher temperature than the specified temperature range, it may cause low life cycle of the product. Please ensure use is within the specified temperature range.

### Features

- Remove particles from compressed air
- Excellent flow and regulation characteristics
- Filter and regulator in one compact unit
- Easy installation, repair and replacement
- 2 gauge ports available
- 5-micron filter

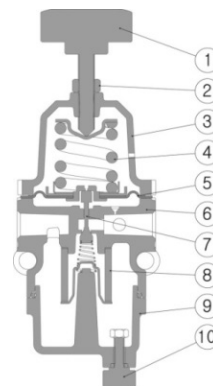
### Specifications

Model	MA-63300	MA-63350
Max Supply Pressure	1.7 MPa (250 psi)	
Max Output Pressure	0.84 MPa (120 psi)	
Air Connection	1/4" NPT	
Gauge Connection	1/4" NPT	
Operating Temperature	-20°C~70°C (-4°F~158°F)	
Filtering Capacity	5 micron	
Material	Die Cast Aluminum	316 Stainless Steel
Weight	0.6 kg (1.32 lbs)	1.5 kg (3.31 lbs)

### Part Numbering

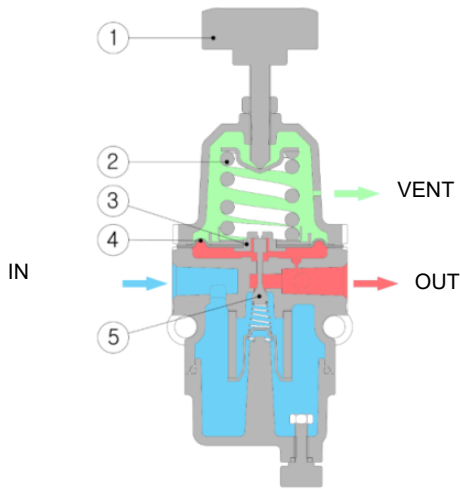
Model	MA-63300 / MA-63350	-	N	S	1
Air Connection	1/4" NPT		N		
Ambient Temp	-4°F~158°F -4°F~248°F -40°F~158°F			S H L	
Pressure Gauge	None 0-150 psi				0 1

### Materials of Construction



No.	Title	Material
1	Adjust Handle	Nylon/STS
2	Nut	STS
3	Spring Cover	ALDC12/316SS
4	Adjust Spring	HSW3
5	Diaphragm Ass'y	STS/NBR
6	Body	ALDC12/316SS
7	Stem	C3604BD/NBR
8	Filter	Poly-Ethylene
9	Filter Cover	ALDC12
10	Drain Plug	Nylon/STS

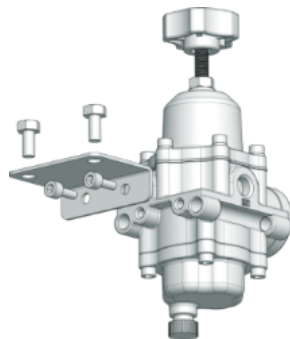
### Principle of Operation



Turning the adjustment handle (1) clockwise, the spring (2) force increases, the diaphragm assembly (3) moves downward, at the same time the stem (5) is moved downward, and the air pressure on the IN side is transmitted to the OUT side. When the OUT side pressure rises to the set pressure, the pressure at the bottom of the diaphragm (4) increases, the stem (5) moves upward with the thrust of the spring at the bottom of the stem (5), and the seat is closed to block the IN and OUT side passage.

If the air pressure at the OUT side is higher than the set pressure or if the adjustment handle (1) is turned counterclockwise, the diaphragm (4) center hole opened, the air pressure at the OUT side is transmitted to the spring case chamber and discharged into the atmosphere through the VENT hole to maintain the set pressure.

### Bracket Installation

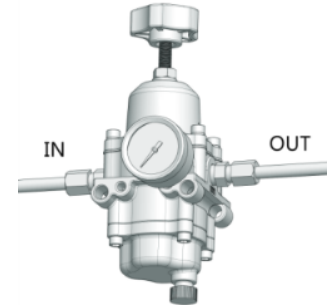


If bracket is required for installation, please refer to product dimension drawings, and install per example. (Bracket not included).

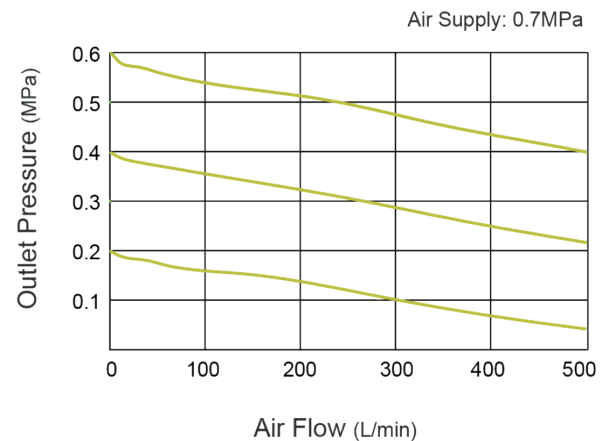
### Air Connections

1. Connect field supply air to IN port.
2. OUT port can be connected to various devices such as a positioner, solenoid valve, or actuator.

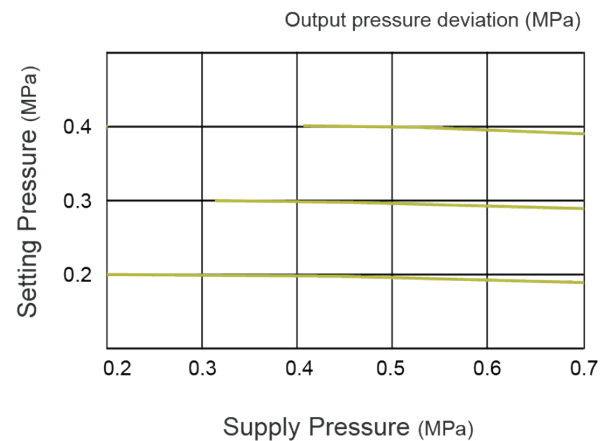
**Caution:** If the IN and OUT ports are connected in reverse, it may cause malfunction.



### Flow Characteristics



### Pressure Characteristics



### Maintenance

- To maintain the normal filtering function of the product, periodically drain the condensate in the filter case manually.



#### Caution

When discharging condensate by turning the drain plug, first shut off the supply pressure or lower the input air pressure to a low pressure of 0.1MPa (15 psi) or less.

- To maintain normal air flow capacity, please replace the filter installed inside the filter case periodically.

### Dimensions

