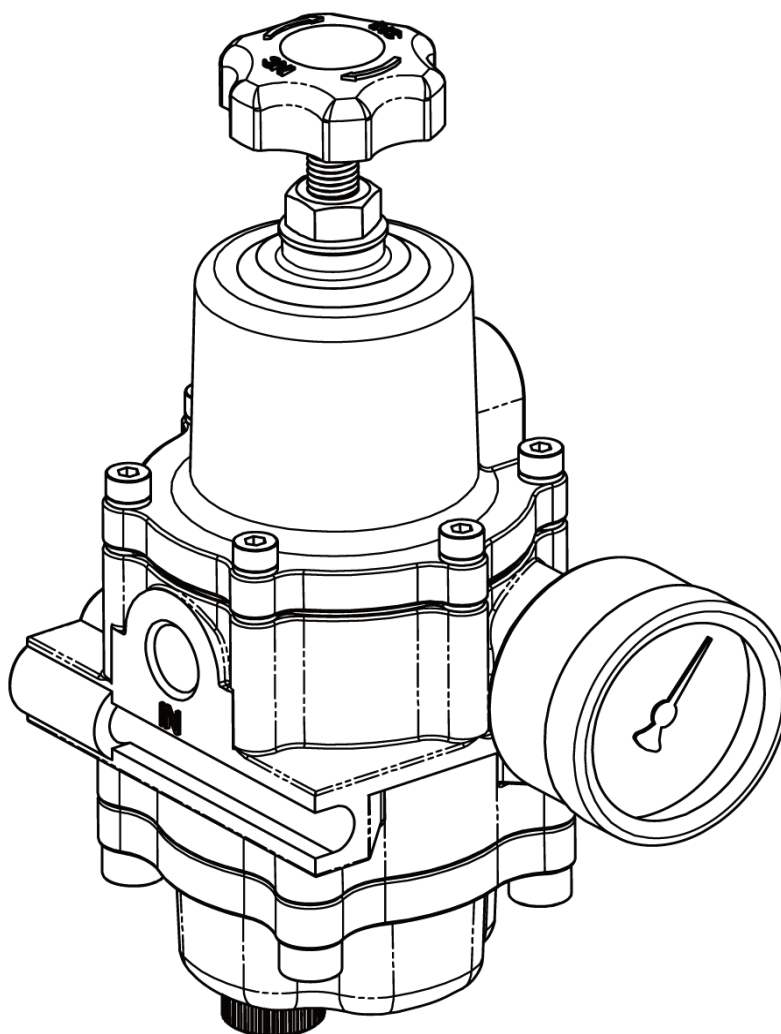




# Air Filter Regulators YT-200 (YT-205)

*Installation and Operation Manual*

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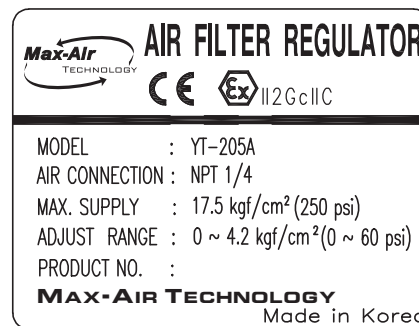
## Product Description

Air Filter Regulator, YT-200 (YT-205), receives main air pressure and supplies to the desirable level to a positioner or other devices.

## Product Characteristic

- Maintain desirable pressure level, regardless of fluctuation of pressure input.
- Aluminum body increases versatility of the product in different environments.
- A 5 micron filter sorts impurities in supply line.
- Relief function is available which discharges to atmosphere if the outlet pressure is higher than setting pressure.

## Label



**MODEL:** Indicates product's model, suffix, and options (if any)

**SIZE:** Indicates the port size of air connection.

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**CONNECTION SUPPLY:** Indicates maximum level of air supply.

**ADJUST RANGE:** Indicates adjusting range.

**PRODUCT NO.:** Indicates serial number.

## Suffix Symbol

YT-200 (YT-205) follows suffix symbols as below.

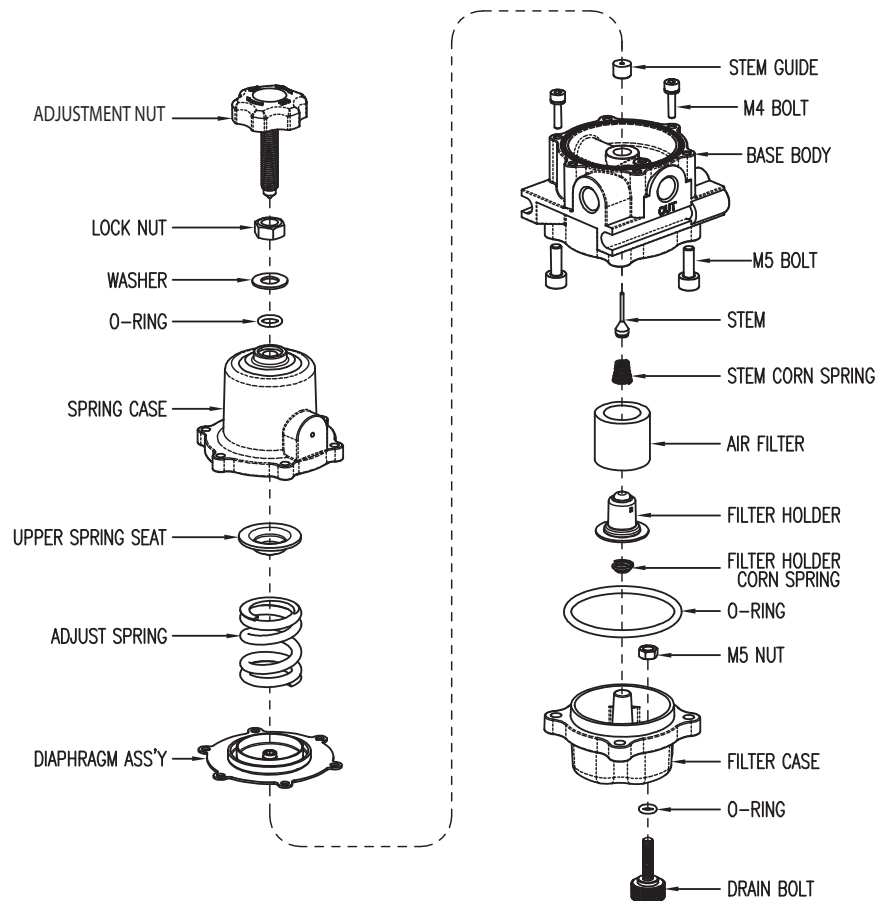
YT-200 / YT-205 ① ② ③ ④

- ① Adjustable Range A : 0~4.2kgf/cm<sup>2</sup>  
B : 0~8.4kgf/cm<sup>2</sup>  
C : 0~2.1kgf/cm<sup>2</sup>
- ② Connection Type P : PT  
N: NPT
- ③ Gauge 0 : None  
1 : 4kgf/cm<sup>2</sup>  
2 : 10kgf/cm<sup>2</sup>
- ④ Ambient Temp. 1 : -20 ~ 70°C  
2 : -20 ~ 120°C  
3 : -40 ~ 70°C

## Specification

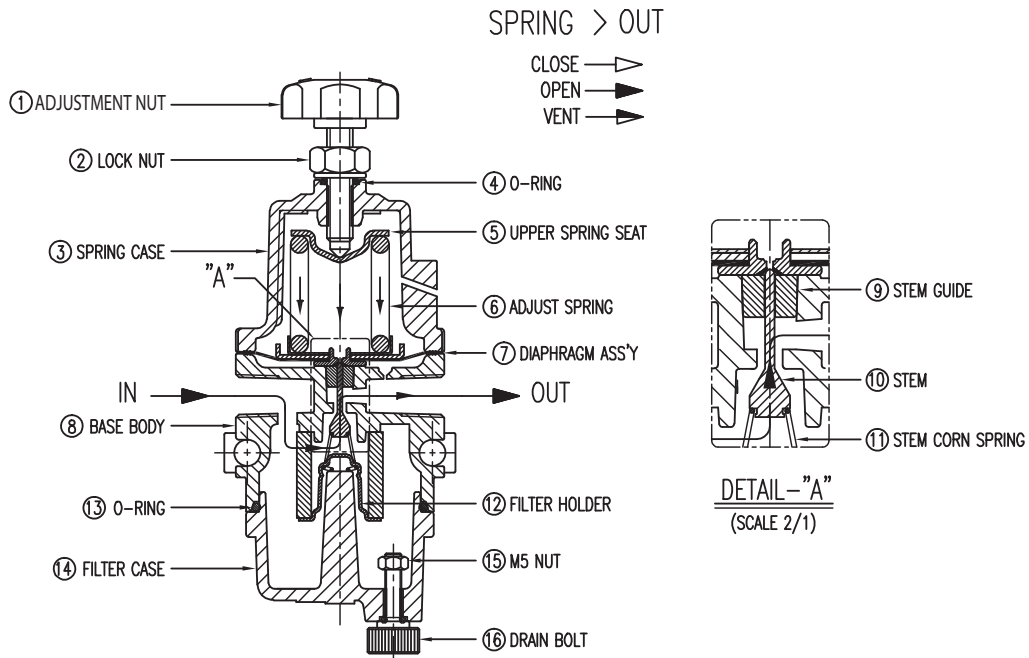
| Category            | YT-200   |                        | YT-205                 |
|---------------------|--|------------------------|------------------------|
|                     | A  | B                      | C                      |
| Max Supply Pressure | 15kgf/cm <sup>2</sup> (231psi)                                     |                        |                        |
| Max Output Pressure | 4.2kgf/cm <sup>2</sup>   | 8.4kgf/cm <sup>2</sup> | 2.1kgf/cm <sup>2</sup> |
| Air Connection      | PT(NPT) 1/4  |                        | NPT1/4                 |
| Gauge Connection    | PT(NPT) 1/8  |                        | NPT1/8                 |
| Ambient Temperature | -20~70℥ (Standard),<br>-20~120℥ (High Temp.), -40~120℥ (Low Temp.) |                        |                        |
| Min Filtering Size  | 5 micron   |                        |                        |
| Material            | Aluminum   |                        | Stainless Steel 316    |
| Weight              | 0.6kg  |                        | 1.4kg                  |

## Parts and Assembly

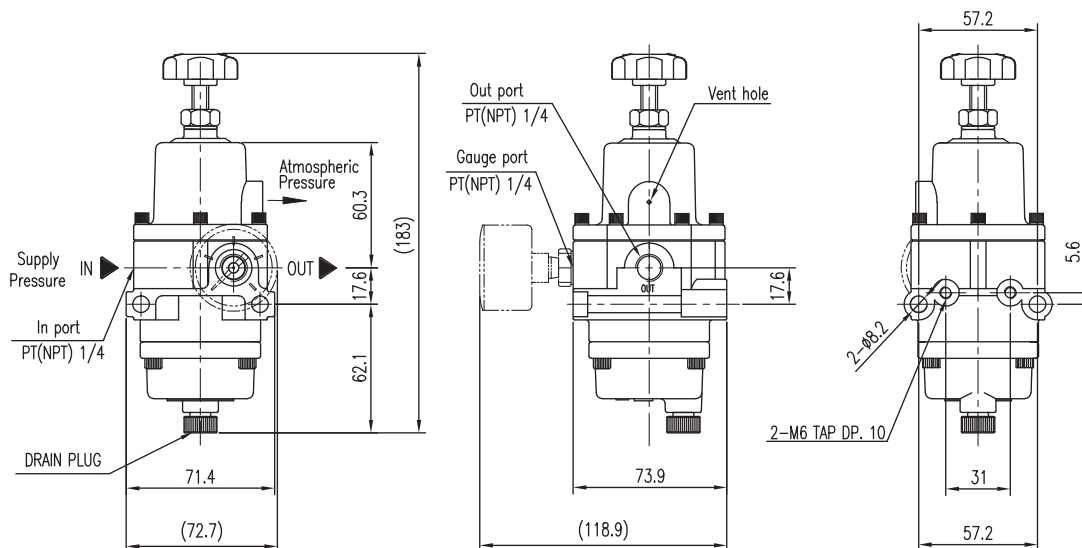


## Operation Logic

Air pressure is being supplied to the output port by turning the adjustment nut clockwise, which will push diaphragm, then the diaphragm disconnects from the stem and disc. The set pressure level stays constant by transferring pressure to the lower diaphragm, which balances the adjust spring. In case of the air pressure being higher than the desired setting, the air pressure will push the diaphragm and air will be released through a hole in the spring case.



## Outer Dimensions



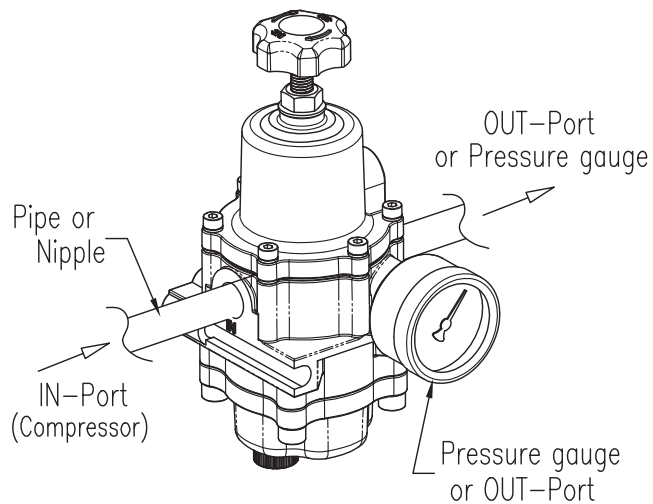
## Installation

☞ **Caution: When installing the product, please follow the procedures listed below.**

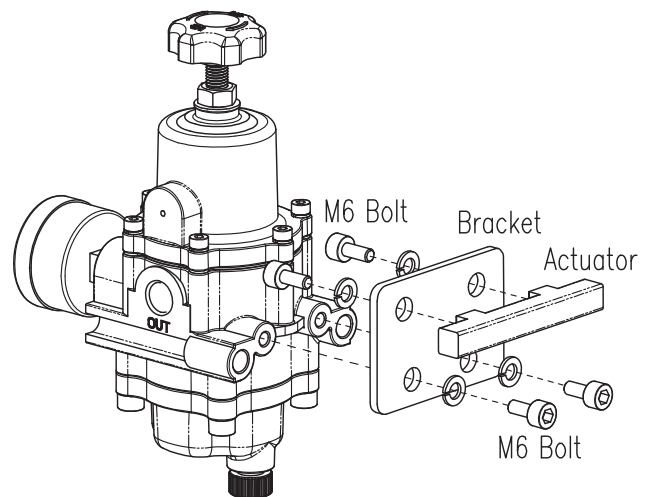
- Always wear safety equipment and follow safety procedures.
- Air must be clean and dry.
- Please operate within the range of specified capacity of the regulator in the manual. If exceeded, the product may be damaged and serious damages can occur.
- The product can malfunction if damaged. Please treat the unit with appropriate care.
- For maintenance, release the drain bolt on a timely basis to extract any water inside.
- Filter must be replaced on a timely basis. Filter usage depends on the environment/field.
- After pressure is set, please make sure adjustment nut is completely fastened.

## Pipe Connection

YT-200 is used for constant supply pressure to a positioner, actuator, solenoid valve, or etc. It can be installed without a bracket **<Figure 1>**, which can be installed on the pipeline. Before connecting with pipeline, please make sure pipeline is emptied, and the size of the pipeline is appropriate for required capacity. If YT-200 must be installed on the bracket, please make a bracket according to the product's dimension. **<Figure 2>**



**<Figure 1>**



**<Figure 2>**

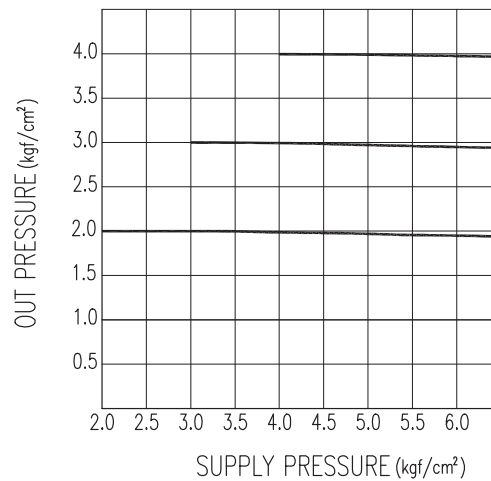
## Instructions

- (1) Before supplying air pressure into YT-200, turn adjustment nut counter-clockwise, so the ring is not pushed.
- (2) Install pressure gauge on the secondary pressure output port. The pressure gauge indicates primary pressure that is being passed through the output port.
- (3) Air pressure is supplied through primary pressure input port after output port is blocked by a using ball-valve or other air fittings.
- (4) When the secondary pressure reaches a set level, fasten the adjustment nut completely.

## Output and Flow (LPM)

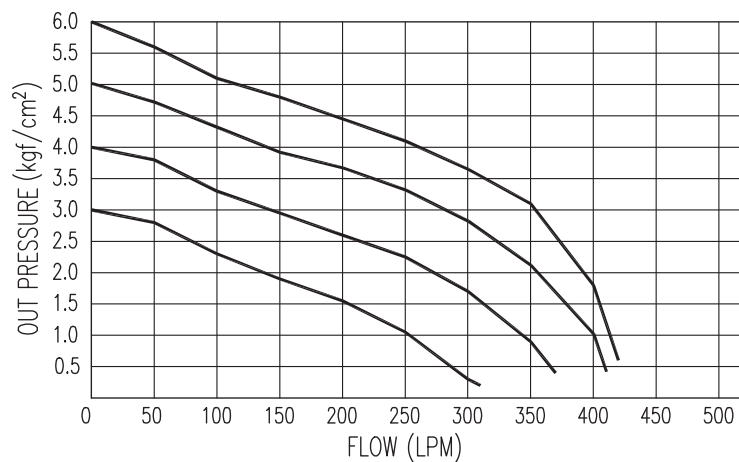
### Pressure

[Pressure Effect]



### Flow (LPM)

Supply : 7 kgf/cm<sup>2</sup>



## Maintenance

Please refer to below table (repair kit) and parts' name. Before replacing any parts, please make sure to follow field's safety procedure and the manual to avoid any accidents and damages to the product.

### Repair Kit

| Part Name          | Qty    |
|--------------------|--------|
| Stem               | 1 (ea) |
| Diaphragm Assembly | 1 (ea) |
| Filter             | 1 (ea) |
| O-Ring             | 2 (ea) |

When using Repair Kit, all of the parts must be replaced at the same time. Partial part replacement may result in shortening the product's life cycle.

#### ► Draining condensed water

- ① When draining out condensed water, supplied air pressure must be shut down completely or adjust the pressure level below 1kgf/cm<sup>2</sup>. The operator can be seriously hurt when draining out at high pressure.
- ② Slowly open drain plug to drain condensed water.
- ③ After draining out completely, close the drain plug.

#### ► Replacing filter case and parts

- ① Shut off supply air pressure.
- ② Release lock nut on adjustment nut, rotate adjustment nut counter-clockwise to lower setting pressure.
- ③ Open drain plug on filter case to drain condensed water and close.
- ④ Unscrew bolts on filter case in diagonal order.
- ⑤ Replace filter, o-ring, and stem.
- ⑥ Screw bolts on filter case in diagonal order.
- ⑦ Unscrew 6 bolts on spring case in diagonal order.
- ⑧ Replace diaphragm assembly.
- ⑨ Screw bolts on spring case in a diagonal order. Make sure not to damage the diaphragm when screwing in.
- ⑩ After parts are replaced, set air pressure to desired level.

## **Manufacturer's Warranty**

- For safety, it is imperative to follow install instructions in the manual. Damages due to user's negligence are not the manufacturer's responsibility.
- Manufacturer is not responsible for any damages or accident due to user's alteration of the product and parts. If alteration or modification is necessary, please contact the manufacturer directly.
- Manufacturer warrants the product from the date of original retail purchase of the product for one (1) year, except as otherwise stated.
- Manufacturer's warranty will not cover products that have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not proposed in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; damages that occur in shipment, due to acts of God, failure due to power surge, or cosmetic damage. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.
- For detailed warranty information, please contact your local Max-Air Technology office.



**Max-Air**

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