

AIR FILTER REGULATOR YT-200 / 205 / 220 / 225 SERIES

PRODUCT MANUAL



Contents

1. Introduction	3
1.1 General information for the users	3
1.2 Manufacturer Warranty	3
2. Product Description	4
2.1 General	4
2.2 Main Features and Functions	4
2.3 Label Description	4
2.4 Product Number	5
2.5 Product Specification	5
2.6 Operation Logic	6
2.7 Dimension (YT-200 / 205)	6
2.8 Dimension (YT-220 / 225)	6
3. Installation	7
3.1 Safety	7
3.2 YT-200 / 205 / 220 / 225 Installation	7
3.3 Adjustment	7
4. Maintenance	8

1. Introduction

1.1 General Information for the users

Thank you for purchasing Young Tech Co., Ltd products. Each product has been fully inspected after its production to offer you the highest quality and reliable performance. Please read the product manual carefully prior to installing and commission the product.

- For the safety, it is important to follow the instructions in the manual. Young Tech Co., Ltd will not be responsible for any damages caused by user's negligence.
- The manual should be provided to the end-user.
- Any modifications or repairs to the product may only be performed if expressed in this manual.
- The manual can be altered or revised without any prior notice. Any changes in product's specification, design, and/or any components may not be printed immediately but until the following revision of the manual.
- The manual should not be duplicated or reproduced for any purpose without prior approval from Young Tech Co., Ltd, Gimpo-si, South Korea.

1.2 Manufacturer Warranty

- For the safety, it is important to follow the instructions in the manual. Manufacturer will not be responsible for any damages caused by user's negligence.
- Manufacturer will not be responsible for any damages or accidents as a result of any alteration or modification of the product and its parts. If any alteration or modifications are necessary, please contact Young Tech Co., Ltd directly.
- Manufacturer warrants the product from the date of original purchase of the product for eighteen (18) months, except as otherwise stated.
- Manufacturer warranty will not cover products that have been subjected to abuse, accidents, alterations, modifications, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; damages that occurs in shipment, due to act of God, failure due to power surge, or cosmetic damage. Improper or incorrectly performed maintenance will void this limited warranty.
- For detailed warranty information, please contact Young Tech Co., Ltd – South Korea.

2. Product Description

2.1 General

Air filter regulator, YT-200 / 205 / 220 / 225, receives the main supply air pressure and supplies to the desirable level of pressure to a positioner or other pneumatically operating devices.

2.2 Main Features and Functions

- Maintains desirable pressure level, regardless of fluctuation of the main supply pressure.
- 5 micron filters any particles in the main supply pressure.
- Relief function is available which discharges to the atmosphere, if the output pressure is higher than setting pressure.
- Aluminum or stainless steel 316 body enclosure is available.
- Manual or Auto draining is available.

2.3 Label Description

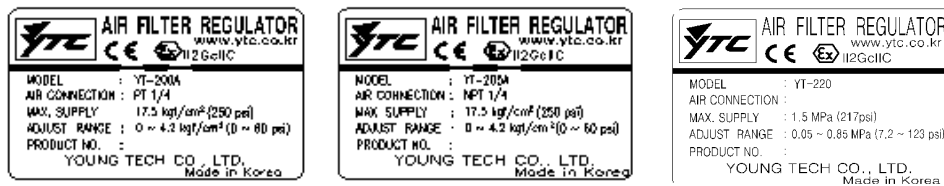


Fig. 1: YT-200 / 205 / 220 / 225 Body Label

- | | |
|---------------------|--|
| A. Model: | Indicates the model number |
| B. Air Connection.: | Indicates connection thread type. |
| C. Max Supply.: | Indicates maximum supply pressure level. |
| D. Adjust Range: | Indicates adjusting range of the pressure level. |
| E. Product No.: | Indicates the lot number. |

2.4 Product Number

YT-200 / 205 / 220 / 225 1 2 3 4 5

1	Adjustable Range	A	0 ~ 0.42 Mpa
		B	0 ~ 0.84 Mpa
2	Connection Type	P	PT
		N	NPT
3	Gauge	0	NONE
		1	0 ~ 0.4 Mpa
		2	0 ~ 1.0 Mpa
4	Ambient Temp	1	-20 ~ 70 °C
		2	-20 ~ 120 °C
		3	-40 ~ 70 °C
5	Option	0	Manual drain
		1	Auto drain

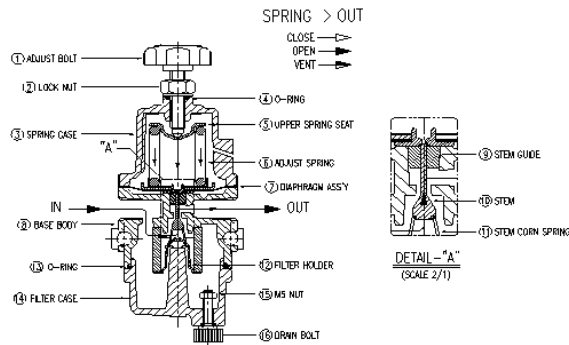
2.5 Product Specification

Model	YT-200	YT-220	YT-205	YT-225
Max Supply Pressure	1.7 MPa (17 bar)			
Max Out Pressure	0.42 MPa (A Type) ; 0.84 MPa (B Type)			
Air Connection	PT(NPT) 1/4	PT(NPT) 1/2	NPT 1/4	NPT 1/2
Gauge Connection	PT(NPT) 1/4	PT(NPT) 1/4	NPT 1/4	NPT 1/4
Ambient Temperature	Standard Temp. :-20~70°C High Option Temp. : -20~120°C Low Option Temp: -40~70°C			
Min. Filtering Size	5 micron			
Material	Aluminum Diecasting		Stainless Steel 316	
Weight	0.6kg (1.7lb)	0.9kg (1.9lb)	1.4kg (3.0lb)	2.1kg (4.6lb)



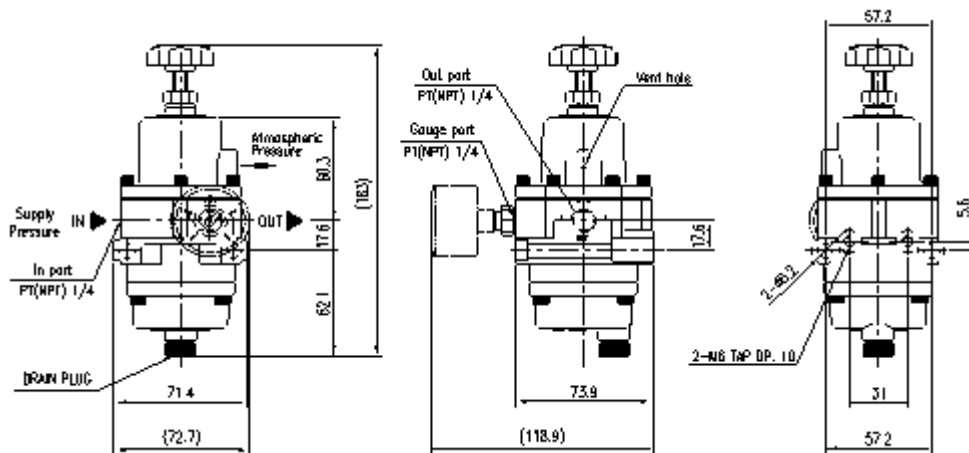
Tested under ambient temperature of 20°C, absolute pressure of 760mmHg, and humidity of 65%. Please contact Young Tech Co., Ltd for detailed testing specification.

2.6 Operation Logic

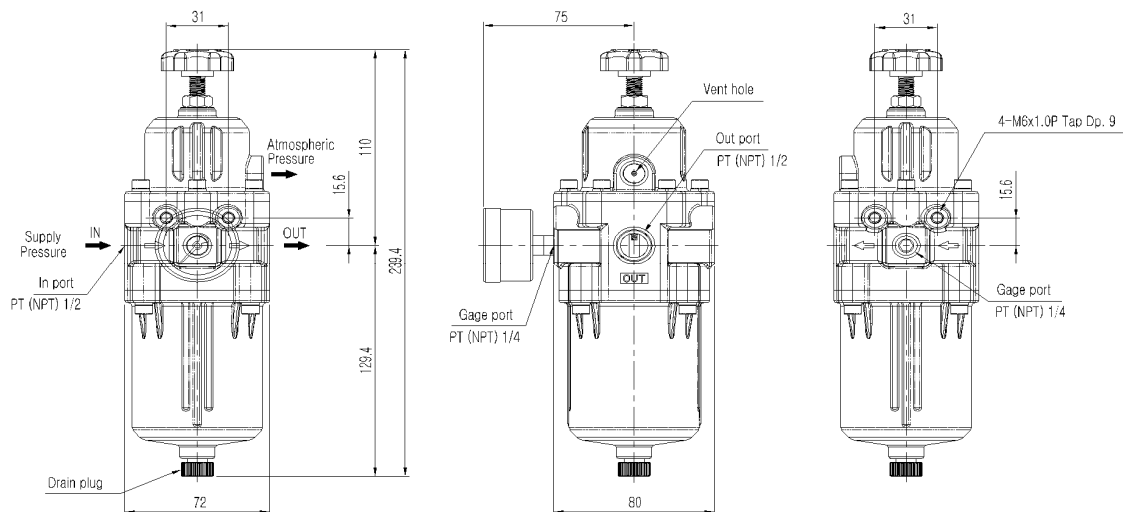


Air pressure is being supplied to the output port as adjust bolt is being turned clock-wise which will push the diaphragm. Pushed down diaphragm will disconnects the disc from the stem. The set pressure level stays by transferring pressure to lower diaphragm, which will result in balancing the adjust spring. In case of higher pressure than set level, the pressure pushes diaphragm and pressure is released through the hole on the spring case.

2.7 Dimension (YT-200 / 205)



2.8 Dimension (YT-220 / 225)



3. Installation

3.1 Safety

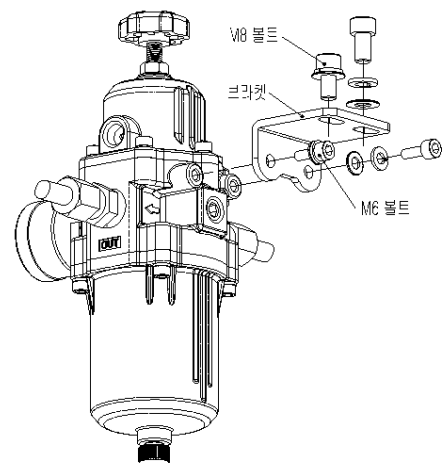
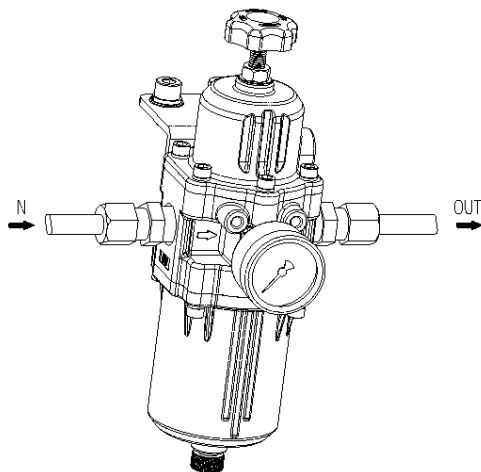
When installing a unit, please ensure to read and follow safety instructions.



- Check unit's specification and ensure to be used as specified.
- Ensure the air quality is clean and dry.
- Please operate the unit within the specified range of the air pressure level. If exceed, the product can be damaged and may result in result damages and accident.
- After the pressure level is adjusted, please make sure that the adjust bolt is completely fastened.

3.2 YT-200 / 205 / 220 / 225 Installation

YT-200 / 205 / 220 / 225 can be installed with or without a bracket depending on the field requirement. Please refer to YT-200 / 205 / 220 / 225 dimensions to make appropriate bracket, if required.



3.3 Adjustment

- 1) Before supply main air pressure to the product, please turn the adjusting bolt in counter-clockwise, so the ring is not being pushed.
- 2) Install a pressure gauge on the secondary pressure output port to monitor the pressure level constantly. The pressure gauge indicates the primary pressure that is being output from the product.
- 3) Block output port and pressure gauge port with ball-valve type or other type of fitting and supply primary pressure to input port.
- 4) When secondary pressure reaches at the set level, please fasten the adjust bolt.

4. Maintenance

- 4.1 YT-200 / 205 / 220 / 225 require regular maintenance. Please refer to below repair kit part list. It is suggested to replace all parts at the same time to guarantee the life cycle of the product.
- 4.1.1 Repair kit
- Upper diaphragm assembly: 1 each
 - Lower diaphragm: 1 each
- 4.1.2 Draining condensed water
- When draining out condensed water, the main supply pressure to the product must be shut down completely or adjust the pressure level of 1 kgf/cm² or below.
 - Slowly open drain plug to drain condensed water.
 - After the draining, please close the drain plug.
- 4.1.3 Replacing the filter case and parts.
- When replacing the filter case or any parts, the main supply pressure to the product must be shut down completely or adjust the pressure level of 1 kgf/cm² or below.
 - Release the lock nut on the adjust bolt, and rotate the adjust bolt counter-clockwise to lower the setting pressure.
 - Open drain plug on filter case to drain condensed water and close.
 - Unscrew the bolts on the filter case in diagonal order.
 - Replace the filter, o-ring, and stem.
 - Screw the bolts on the filter case in diagonal order.
 - Unscrew 6 bolts on the spring case in diagonal order.
 - Replace the diaphragm assembly.
 - Screw the bolts on the spring case in diagonal order. Please make sure not to damage the diaphragm when screwing.
 - After the part replacement, please re-set the air pressure at the desired level.

Manufacturer:**Young Tech Co., Ltd**

#3022, Hagun-ri, Yangchon-myeon

Kimpo-si, Kyeonggi-do, 415-843

South Korea

Tel: +82-31-986-8545

Fax: +82-31-986-2683

Email: ytic@ytic.co.kr

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