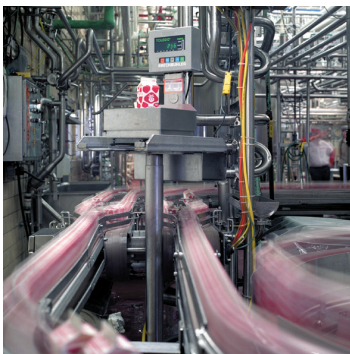


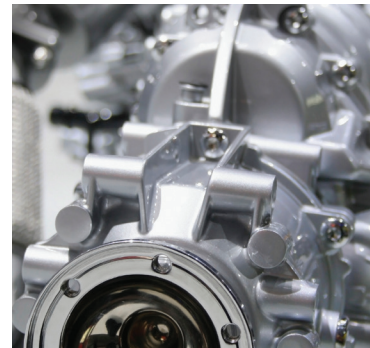


aerospace
 climate control
 electromechanical
 filtration
 fluid & gas handling
 hydraulics
pneumatics
 process control
 sealing & shielding



AU Plus Series

AU/AF/AR/AL/AFR



ENGINEERING YOUR SUCCESS.



WARNING - USER RESPONSIBILITY

Failure, improper selection, or improper use of the products or related items described herein may result in death, personal injury, and property damage.

- *This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users with technical expertise.*
- *The user is responsible for making final selection of the system and components through its own analysis and testing and for ensuring that all performance, durability, maintenance, safety and warning requirements of the application are met.*
- *You must analyze all aspects of the application, follow applicable industry standards, and follow product information in current product catalogs and materials provided by Parker or its affiliates or authorized distributors.*
- *To the extent that Parker or its subsidiaries or authorized dealers provide part or system options pursuant to information or specifications provided by User, User warrants that such information and specifications are suitable and sufficient for any application and that are reasonably foreseeable to the part or system. You are responsible for determining its suitability for your intended use.*



For safe use

Please be sure to read before use.

Please check the text for common precautions and individual precautions for each series.

The precautions written here are intended to prevent harm or damage to the human body so that our products can be used safely and correctly. Precautions are divided into three categories, “Danger,” “Warning,” and “Caution,” to indicate the magnitude and severity of harm to the human body or damage to property that may occur if handled incorrectly. Either way, it is important for safety, so please be sure to follow it.

 Danger	 Warning	 Caution
In cases where there is an imminent risk of death or serious injury to a person if handled incorrectly	When there is a risk of death or serious injury to a person if handled incorrectly	In case of incorrect handling, if there is a risk of injury to a person or if material damage is expected to occur

Also, be sure to comply with JIS B 8370*1 or ISO 4414*2, Occupational Safety and Health Act, High Pressure Gas Security Act and other safety laws and regulations.

*1 JIS B 8370 : Pneumatic system general rules

*2 JSO 4414 : Pneumatic fluid power-General rules relating

Additionally, the items listed in “Caution” may lead to serious consequences depending on the situation. Please be sure to follow all of the important information.

Warning

• Please select the pneumatic equipment correctly.

The suitability of pneumatic equipment must be determined by the designer of the pneumatic system or the person responsible for determining specifications.

Since the products listed here are used under various conditions, their suitability for the system must be determined by the pneumatic system designer or the person responsible for determining specifications after analysis or testing as necessary.

Ensuring the intended performance and safety of this system is the responsibility of the person who determines the suitability of the system. Please continue to review all specifications using the latest product catalogs and materials, and configure the system taking into account the possibility of device failure.

• Please have someone with sufficient knowledge and experience handle it.

Compressed air can cause harm to humans or damage to property if handled incorrectly. Additionally, pneumatic equipment is designed as parts for industrial machinery and machines using it. Equipment assembly, operation and maintenance must be performed by a person with sufficient knowledge and experience.

• Machine until safety is confirmed. Never handle or disassemble the device.

When inspecting or maintaining a mechanical device, please check that measures have been taken to prevent the actuator from falling or running away.

• The products listed here are mainly used for general industrial machinery. When using the product under the following conditions or environments, please take safety measures and consult with us at the same time.

Safety in conditions or environments other than those specified, use outdoors, nuclear power, railways, aircraft, vehicles, ships, medical equipment, equipment in contact with beverages or food, entertainment equipment, emergency cutoff circuits, press clutches, brake circuits, etc. Used in equipment. Used in applications where a significant impact on human health or property is expected and safety is particularly required.



FRL Unit/common precautions ①

Be sure to read carefully before use.

Please also refer to the individual precautions for each series 『For safe use』.

Be careful when designing

Warning

About plastic parts

The transparent plastic parts (bowl, level gauge, sight glass) are made of polycarbonate. However, do not use them under the chemicals or conditions listed below. If you need to use it under these conditions, please contact us.

Locations exposed to direct sunlight, strong winds, and locations subject to outdoor temperature.

- Chemicals listed below, etc. (Please inquire about unknown chemicals as well.)
- If the compressor oil contains phosphate esters, heavy esters, etc. and it reaches polycarbonate parts.

Mineral	Ammonia water, ammonium sulfide, hydrochloric acid, phosphorus oxychloride, phosphorus trichloride, carbon dioxide, caustic potassium, caustic soda, acetic acid, sodium lactate emulsify, phosphoric acid, chromic acid, slaked charcoal, soda carbonate, soda sulfide, potassium nitrate, potassium dichromate, sodium lactate, etc. Acid washing solution, acid degreasing solution, Film treatment solution, alkaline degreasing solution, etc.
Organic matter	Acetaldehyde, acetic acid, acetone, acrylonitrile, benzene, benzyl alcohol, brominated benzene, butyric acid, dimethylholumamide, ethane tetrachloride, ethylamine, ethylene chloride, ethylene, chlorohidene, ethyl ether, nitric acid, phenol, propyne, xylene, cyclohexanone, cyclohexene, cyclohexanol, methanol, methyl methacrylate, methylene chloride, nitrobenzene, styrene, sulfur chloride, tetrahydrofrane, thiophene, toruene, ethylbenzene, acetylene chloride, torclene, bakurene, ziclobenzene, benzene hexachloride, methyl alcohol, ethyl alcohol, phenolic acid, naphthamethyl ether, methyl ethyl ether, methyl ethyl ketone, Acetophenone, brothylic acid, acrylic acid, brothalic acid, dimetel brothalate, ethyl brothalate, zibtyl brothalate, hellyl brothalate, glycolic acid, Yuhan, lingoic acid, guenoic acid, yusukic acid, nitromethane, nitroethane, Nitroethylene, methylamine, geothylamine, aniline, Acetanilide, acetonitrile, acrylonitrile, benznitrile, nitriles other than acetate, thinner, organic cleaning fluid, pesticide, antifreeze, disinfectant, brake oil, dye, aluminum treatment system, plating, synthetic operating oil, anti-rust oil, etc.
Mineral oil	Gasoline, solvent, naphtha, etc.
etc	Freon, clove oil, nutmeg, etc.

Regulator

If the pressure on the outlet side of the pressure regulator exceeds the set pressure and there is a risk of an abnormality occurring, take safety measures such as installing a relief valve to exhaust the excess pressure and installing a pressure switch to generate an alarm.

Be careful when designing

Caution

Filtration of air filter

Air filters are classified according to filtration degree as follows.

Air filter (5~40 μ m)

Coalescing filter (less than 1 μ m)

- Please select the one appropriate for the required filtration level.

Be careful when designing

Warning

- The regulator is for air pressure. Do not use inert gas such as nitrogen gas.
- When you want to vent the pressure on the inlet side of the regulator and also need to vent the pressure on the outlet side at the same time, use a regulator with a built-in backflow function.
- Regulators may not be used in balanced circuits and outlet sealed circuits.
- If internal leakage or the volume of the outlet circuit is reduced due to air quality, the pressure will fluctuate due to the dead zone of the regulator. Therefore, it cannot be used for applications that maintain constant pressure in a circuit whose outlet side is sealed. If anything is unclear, please contact us.
- Set the outlet pressure of the regulator to 85% or less of the inlet pressure.
- If the set pressure is too high, the pressure drop may be large when compressed air flows.
- Selection of metal bowl
- In environments where plastic bowls cannot be used or when using high pressure, select metal bowl products. If anything is unclear, please contact us.
- Protection of coalescing filter
- The element's capillary tube is thin, so it quickly becomes clogged when polluted air flows through it. Please install an element of approximately 5 μ m on the inlet side to protect it. If the air flow rate of the lubricator is low, oil may not drip.
- Please flow air above the minimum dripping flow rate. (Refer to specifications)



FRL Unit/common precautions ②

Be sure to read carefully before use.

Please also refer to the individual precautions for each series 『For safe use』.

Be careful when designing

Warning

• Air flow rate of auto drain type air filter

When increasing pressure, supply air of 50 l/min (ANR) or more.

If the air flow rate is low, air leakage from the auto drain may not stop.

Mounting/piping

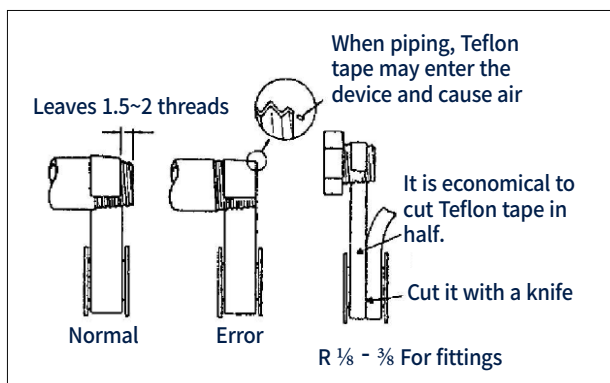
Caution

• Pre-piping treatment

Before piping, completely remove chips, coolant, dust, etc. from inside each pipe.

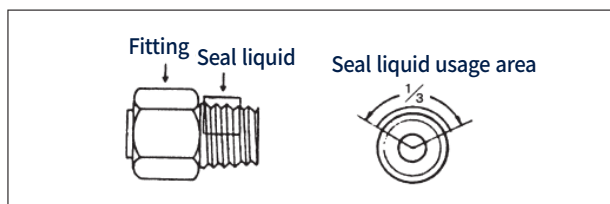
• How to use Teflon tape

When wrapping Teflon tape around the thread, leave about 1.5 to 2 threads.



• How to use seal solution

When using sealing solution on the threaded part, apply an appropriate amount to the threaded part. Apply to about 1/3 of the area and then tighten.



Mounting/piping

Caution

• Screw fastening of pipes and joints

When tightening screws on pipes and joints, make sure that foreign substances and sealing fluid do not enter the interior.

Please tighten appropriately within the tightening torque range.

Be careful when designing

Bolt Size	Tightening Torque(N.m)
M5	1.5 ~ 2.0
R, Rc1/8	7.0 ~ 9.0
R, Rc1/4	12 ~ 14
R, Rc3/8	22 ~ 24
R, Rc1/2	28 ~ 30
R, Rc3/4	28 ~ 30
R, Rc1	36 ~ 38
R, Rc1-1/4	40 ~ 42
R, Rc1/2	48 ~ 50

- How to install air filter and lubricator
Face the bowl downward and mount it vertically. If the direction is wrong, proper filtration performance may not be obtained or lubricant may not be dripped correctly.
- Installation of a piston drain standard filter
The piston drain operates intermittently due to the pressure drop that occurs during the switching operation of the electromagnetic valve. Install it within 50cm of the electromagnetic valve.
- Direction of compressed air flow in air filter
Please connect according to the indication on the main unit. If connected in the opposite direction, the correct degree of filtration cannot be obtained.
- Regulator compressed air flow
Please connect according to the direction indication on the main body. If connected in the opposite direction, air leakage will occur and pressure cannot be adjusted.
- Flow of compressed air from lubricator
Please connect according to the direction indication on the main body. If connected in the opposite direction, the flow rate will be insufficient and the lubricant will not be dripped correctly.
- Drain measures
If there is a lot of drain, install an air dryer or tank drain on the inlet side of the air filter.
- Make sure that the product name display on the nameplate, etc. is not erased by organic solvents, etc. This may cause the mark to be erased.



FRL Unit/common precautions ③

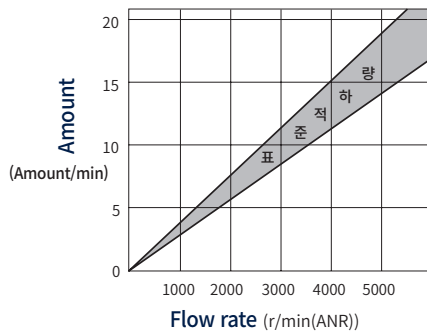
Be sure to read carefully before use.

Please also refer to the individual precautions for each series 『For safe use』.

Be careful when designing

Warning

- **Pressure adjustment on the regulator**
 - When you pull the control knob, the pressure is adjusted, and when you push it, it is fixed.
 - When the control knob does not turn, it is fixed, so pull the knob up and adjust the pressure.
 - Pressure adjustment increases when the pressure adjustment knob is rotated clockwise, and decreases when rotated counterclockwise.
 - After pressure adjustment is completed, be sure to press the pressure adjustment knob to lock it in place.
- **Adjustment of lubricant dripping amount**
 - To adjust the amount of lubricating oil dripping into the lubricator, rotate the flow rate adjustment knob.
 - The dripping amount decreases in the clockwise rotation direction and increases in the counterclockwise rotation direction.
 - Adjust the knob while checking the dripping amount through the sight glass.
 - If air does not flow, lubricant will not drip.
 - Adjust the dripping amount when there is air flow.
 - Please refer to the graph below and adjust the dripping amount according to the conditions.



Maintenance/Inspection

Warning

- **Drain discharge**
Regularly check the remaining amount of drain in the air filter and discharge the drain before it reaches the baffle.
- **Pressure check**
Check the pressure regularly and if the setting changes, adjust the regulator to match the setting.

Maintenance/Inspection

Warning

- **Supply of lubricants and types of lubricants**
Regularly check the amount of lubricant in the lubricator and replenish it before it reaches the bottom of the dip tube. As a lubricant, use turbine oil type 1 (no additives), ISO VG32. Never use other oils (spindle oil, machine oil, etc.). When used, it may cause damage to plastic parts or damage to the seal area.
- **Wash**
When cleaning transparent plastic parts (bowl, level gauge, sight glass), be sure to use a neutral detergent to prevent damage.
- **Replacement of filter element**
Replace the filter element before the pressure drop of the device reaches the value below. Please contact us for exchange methods.

Designation	Pressure Drop
Air Filter	0.05MPa
Coalescing Filter	0.07MPa

- **Decomposition**
When disassembling the device for the purpose of replacing parts, etc., be sure to remove pressure. In some cases, pressure may remain in the piping, so perform disassembly work slowly after confirming that there is no residual pressure.
- **Bowl assembly**
Make sure the bowl is assembled to the body and completely fixed. Please check that the position marks of the bowl guard and bowl are aligned. If it is not assembled correctly, the compressed air may cause the bowl to pop out and cause damage to the human body.
- **Assembling coalescing filter elements**
When removing or assembling an element, hold the end plate without touching the polyurethane cover. If you grab polyurethane, it may break.

AU Plus Series

AU Plus

AU200 Series	8
AU320, AU420 Series	10

AF Plus

AF200 Series	13
AF320, AF420 Series	14

AR Plus

AR200 Series	16
AR320, AR420 Series	17

AL Plus

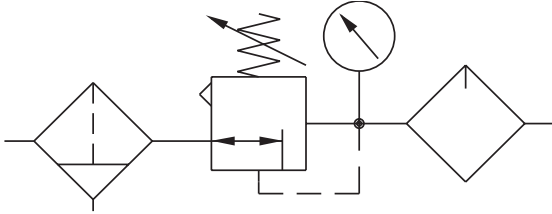
AL200 Series	19
AL320, AL420 Series	20

AFR Plus

AFR200 Series	22
AFR320, AFR420 Series	23
Accessory	25

AU200 Series

3 Point Unit, 2 Point Unit



Ordering Code

AU 2 00 - 8 - AD20 40 - P

Series • Air combination unit

Body Size •

2	¼
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Combination •

00	F+R+L 3 point unit
10	FR+L 2 point unit

Replacement parts/Filter elements

Element	Part Number
5 μm	AU200KAESE
40 μm	AU200KAEAG

Element specifications

No Symbol	5 μm
40	40 μm

Drain options

No Symbol	Manual Drain
AD20	Differential pressure auto drain

Connector Size

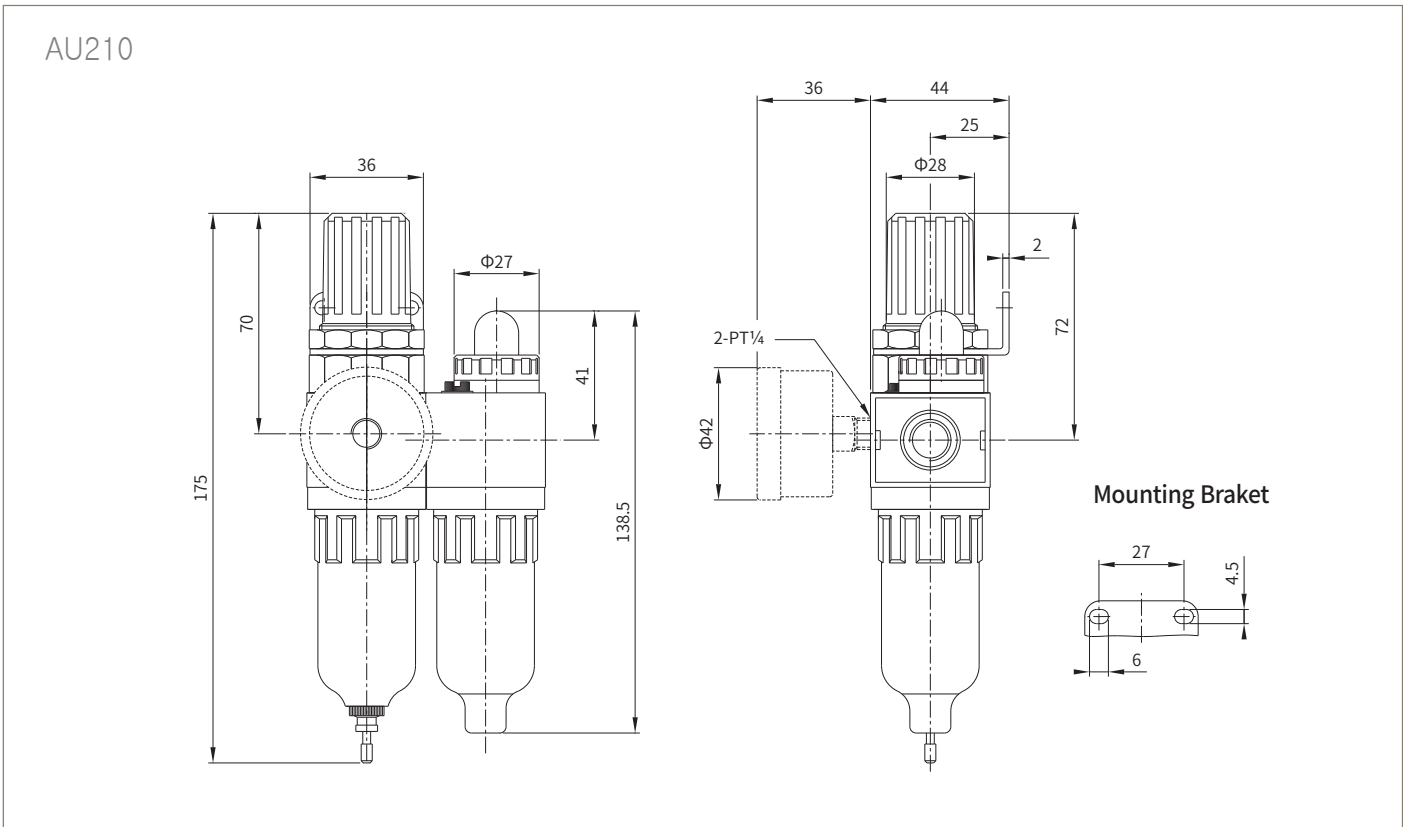
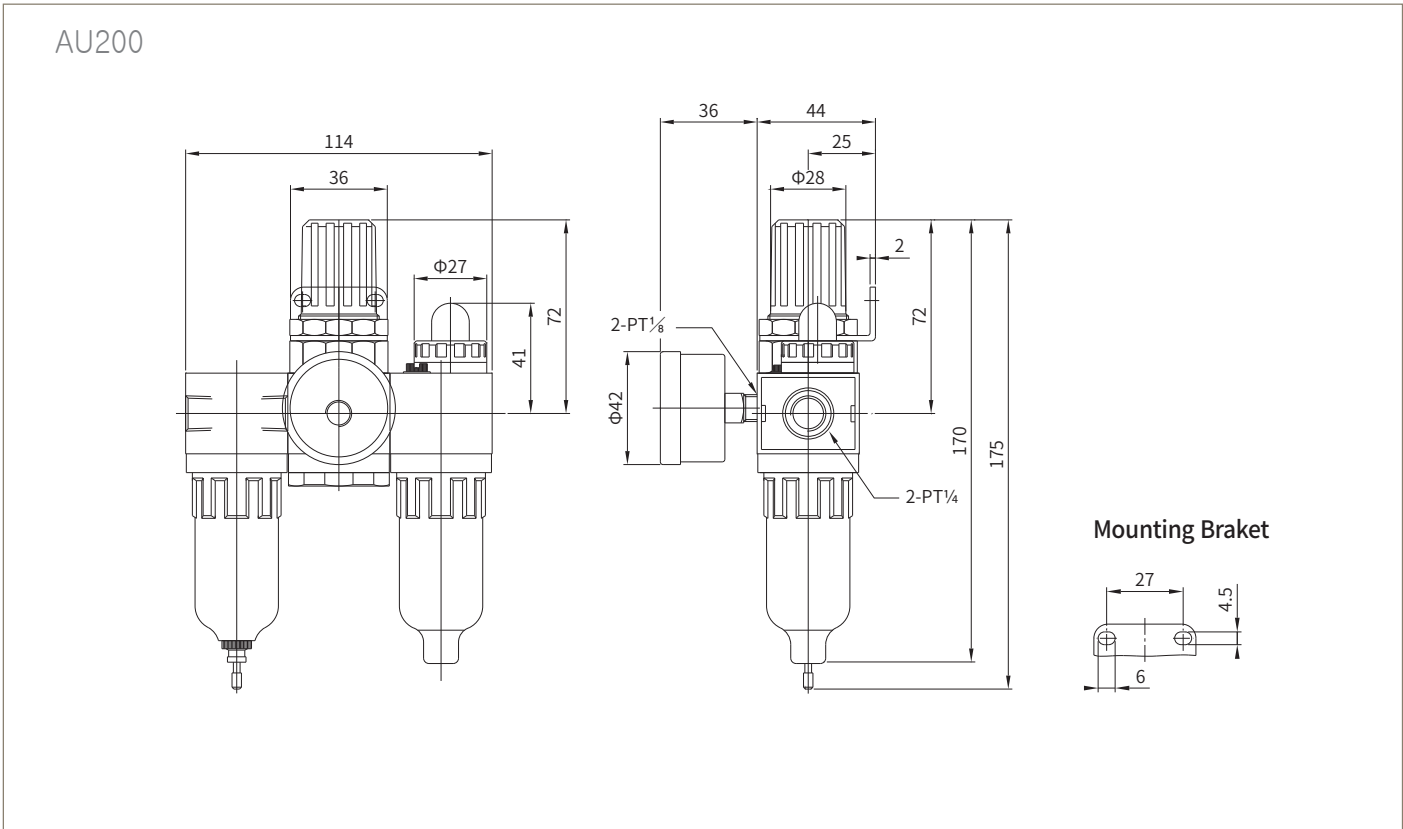
8	Rc¼
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Specification

Category		Unit	AU200	AU210
Connection diameter		Rc(PT)	1/4	
Gauge Connection diameter		Rc(PT)	1/8	
Fluid			Air	
Standard filtration		μm	5 (Option 40)	
Set pressure range		Mpa(bar)	0.05~0.85 (0.5~8.5)	
Max pressure range		Mpa(bar)	1.0 (10.0)	
Temperature range of use		℃	0 ~ 60	
Recommended oil type			Turbine oil 1Type (ISO VG32)	
Device	Filter		AF200	-
	Regulator		AR200	-
	Lubricator		AL200	AL200
	Filter-Regulator		-	AFR200
	Pressure Gauge		GAD40-10	GAD40-10
	L-Mounting bracket		BKL200	BKL200

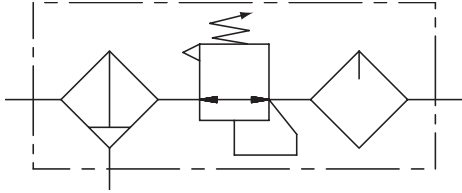
External dimensions

Unit : mm



AU320, AU420 Series

3 Point Unit, 2 Point Unit



Ordering Code

AU 3 20 - 10 - AD41 - 40 - P

Series • Modular air service unit

Body Size

3	3/8
4	1/2

Combination

20	F+R+L 3 point unit
21	FR+L 2 point unit

Replacement parts/Filter elements

Element	Part Number	
	AU320	AU420
5 μm	AU320KAESE	AU420KAESE
40 μm	AU320KAEAG	AU420KAEAG

Element specifications

No Symbol	5 μm
40	40 μm

Drain options

No Symbol	Manual Drain
AD41	Auto drain

Connector Size

10	Rc 3/8 (AU320)
15	Rc 1/2 (AU420)

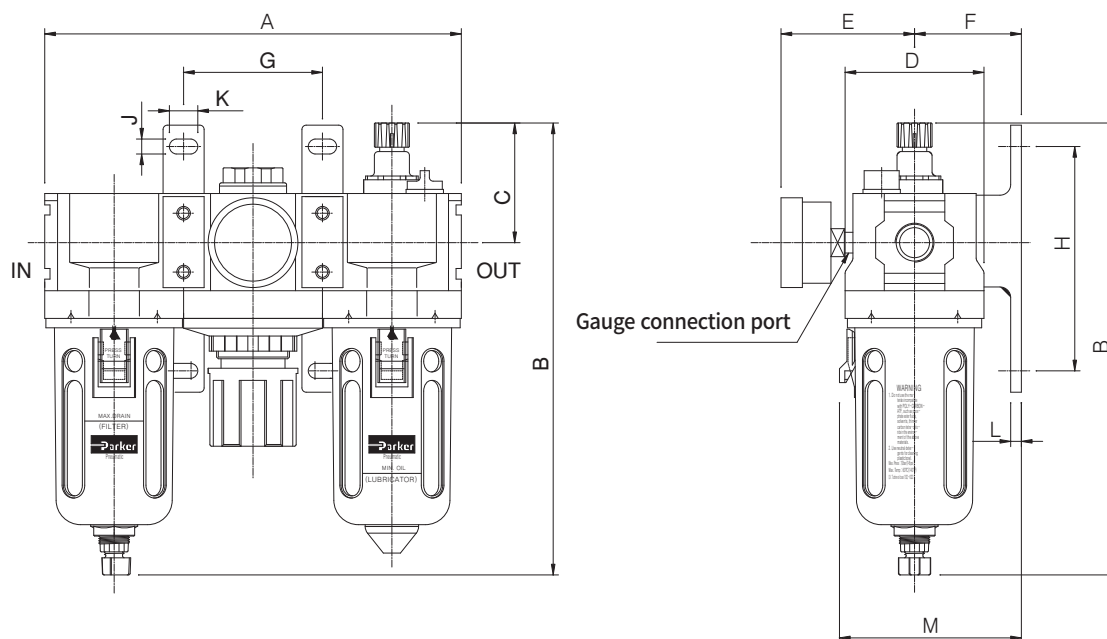
Specification

Category		Unit	AU320	AU321	AU420	AU421
Connection diameter		Rc(PT)	3/8		1/2	
Gauge Connection diameter		Rc(PT)	1/8		1/4	
Fluid			Compressed air			
In warranty Pressure		Mpa(bar)	1.5 (15.0)			
Max pressure range		Mpa(bar)	1.0 (10.0)			
Set pressure range		Mpa(bar)	0.05 ~ 0.85 (0.5 ~ 8.5)			
Temperature range of use		°C	0 ~ 60			
Standard filtration		μm	5 (Option 40)			
Recommended oil type			Turbine oil 1Type (ISO VG32)			
Weight		g	1,126	928	1,618	1,420
Device	Filter		AF320	-	AF420	-
	Regulator		AR320	-	AR420	-
	Lubricator		AL320	AL320	AL420	AL420
	Filter-Regulator		-	AFR320	-	AFR420
	Pressure Gauge		GAD40-10	GAD40-10	GAD50-10	GAD50-10
	T-Mounting bracket		BKU320	BKU321	BKU420	BKU421

External dimensions

Unit : mm

AU320/AU420

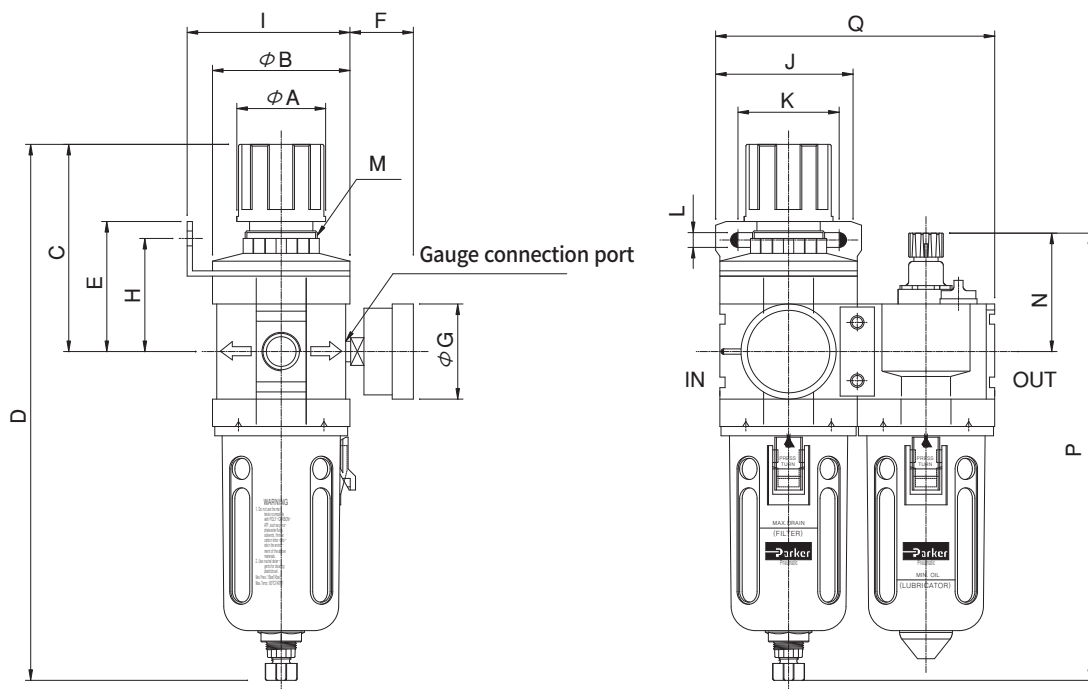


Series	Gauge Size	A	B	C	D	Mounting bracket							M
						E	F	G	H	J	K	L	
AU320	Rc 1/8	195	206	56	65	67.5	45	65	105	7	14	7	86
AU420	Rc 1/4	240	224	56	80	75	45	80	105	7	14	7	93

External dimensions

Unit : mm

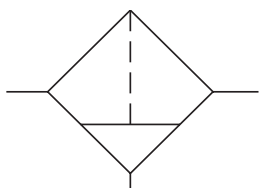
AU321/AU421



Series	Gauge Size	A	ΦB	C	D	Mounting bracket								M	N	P	G
						E	F	ΦG	H	I	J	K	L				
AU321	Rc 1/8	42	65	96	246	61.5	30	45	53.5	77	69	48	7	M35 X P1.5	56	206	132
AU421	Rc 1/4	50	80	110	279	65	35	54	57	94.5	84	63	7	M42 X P1.5	56	224	162

AF200 Series

Air Filter



Ordering Code

AF **200** — **8** **AD20** — **40** — **P**

Series
 Air Filter

Body Size

2	1/4
---	-----

Connector Size

8	Rc 1/4
---	--------

Element specifications

No Symbol	5 μm
40	40 μm

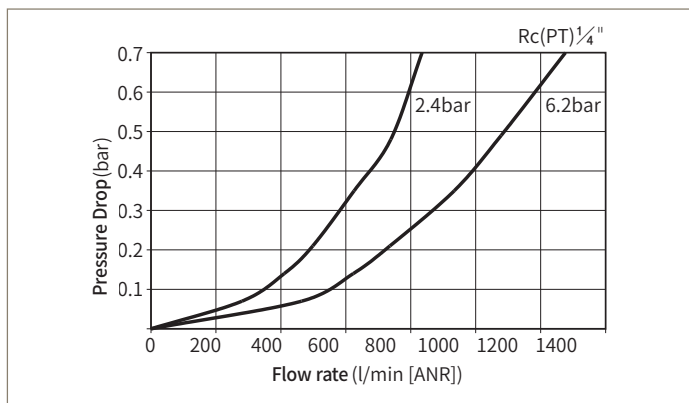
Drain options

No Symbol	Manual Drain
AD20	Differential pressure auto drain

Specification

Category	Unit	AF200
Connection diameter	Rc(PT)	1/4
Standard filtration	μm	5 (Option 40)
Max pressure range	Mpa(bar)	1.0 (10.0)
In warranty Pressure	Mpa(bar)	1.5 (15.0)
Temperature range of use	°C	0 ~ 60

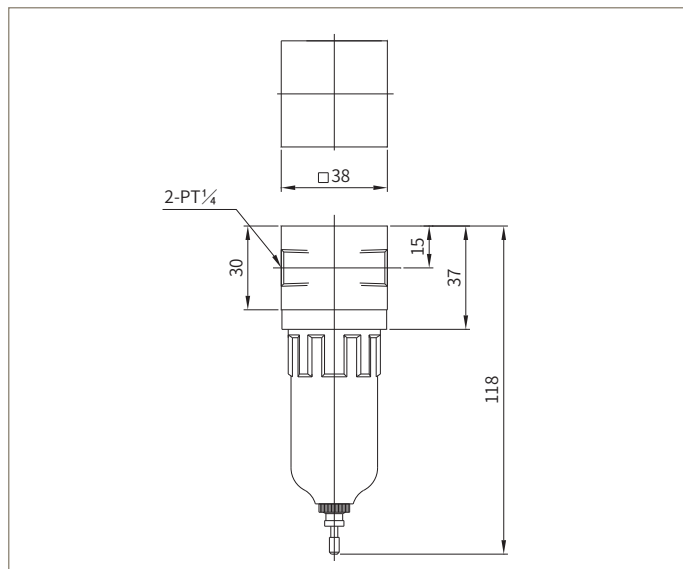
Flow characteristics



Replacement Parts/Filter Element

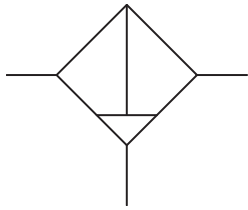
Element	Part Number
5 μm	AU200KAESE
40 μm	AU200KAEG

External dimensions



AF320, AF420 Series

Air Filter



Ordering Code

AF 320 - 10 - AD41 - 40 - P

Series
Air Filter

Body Size

320	3/8
420	1/2

Connector Size

8	1/4	AF320
10	3/8	
15	1/2	

Element specifications

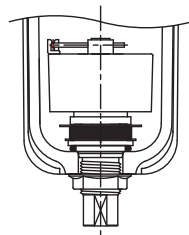
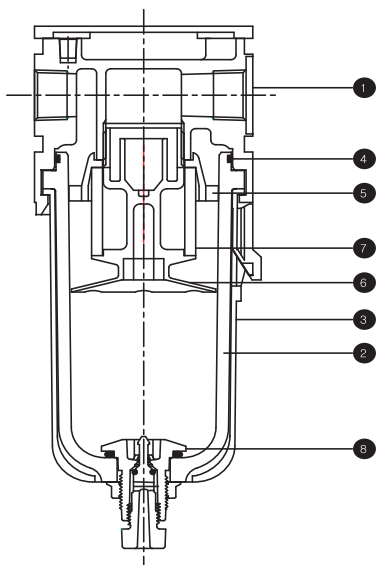
No Symbol	5µm
40	40µm

Drain options

No Symbol	Manual
AD41	Auto drain

Note) For individual installation, please order C-bracket (AF320: BKC320, AF420: BKC420) separately.

Structure



Floater type auto drain

Main parts

No	Part	Material
1	Body	AL Diecast
2	Bowl	Resin
3	Bowl Guide	Resin
4	Bowl O-ring	NBR
5	Deflector	Resin
6	Baffle	Resin
7	Element	Resin
8	Drain Ass'y	Resin

Replacement Parts/Filter element

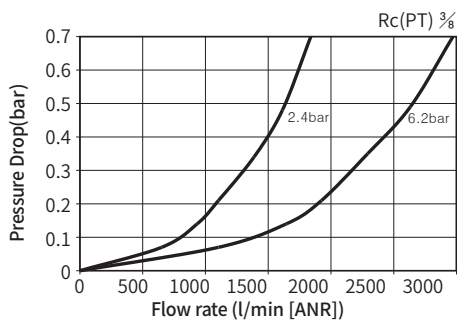
Element	Part Number	
	AU320	AU420
5 µm	AU320KAESE	AU420KAESE
40 µm	AU320KAEAG	AU420KAEAG

Specification

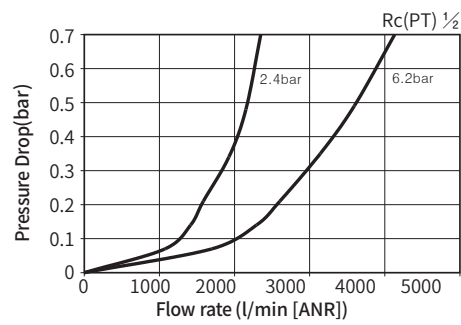
Category	Unit	AF320	AF420
Connection diameter	Rc(PT)	1/4, 3/8	1/2
Filtration	μm	5 (Option 40)	
In warranty Pressure	Mpa(bar)	1.5 (15.0)	
Max pressure range	Mpa(bar)	1.0 (10.0)	
Temperature range of use	℃	0 ~ 60	
Weight	g	286	444

Flow characteristics

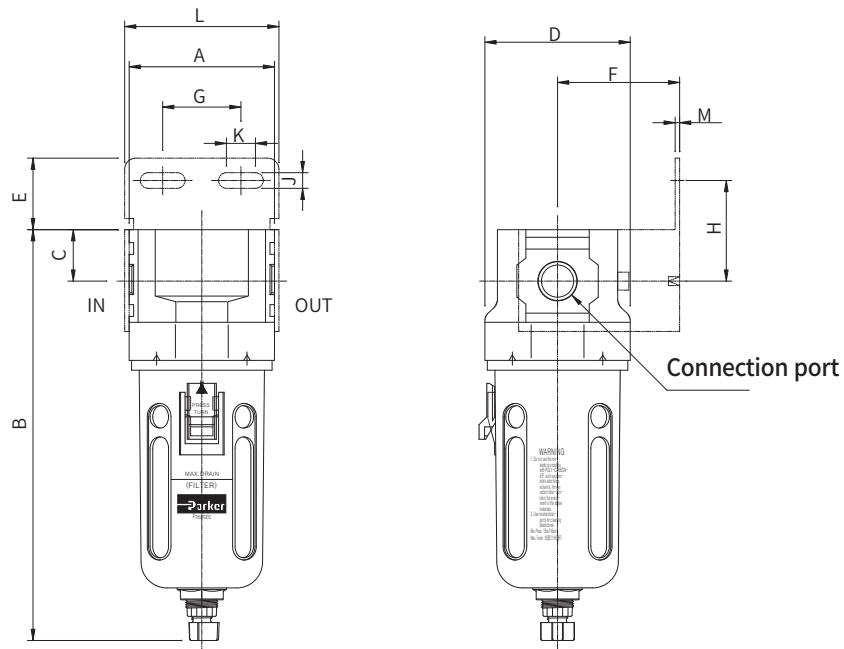
AF320-10



AF420-15

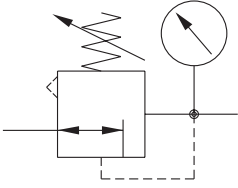


External dimensions

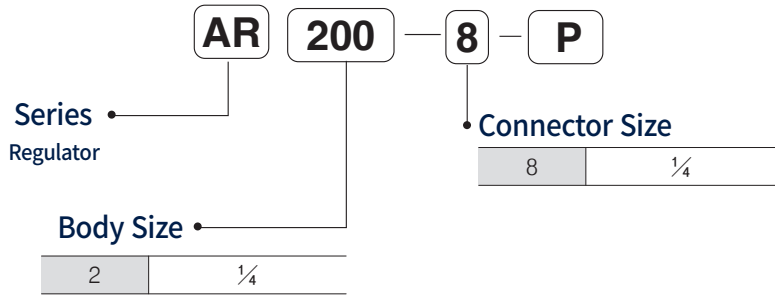


Series	A	B	C	D	Mounting bracket							
					E	F	G	H	J	K	L	M
AF320	65	172	23	65	32	50	35	45	7	13	69	2.3
AF420	80	190	23	80	32	50	50	45	7	13	85	2.3

AR200 Series Regulator



Ordering Code

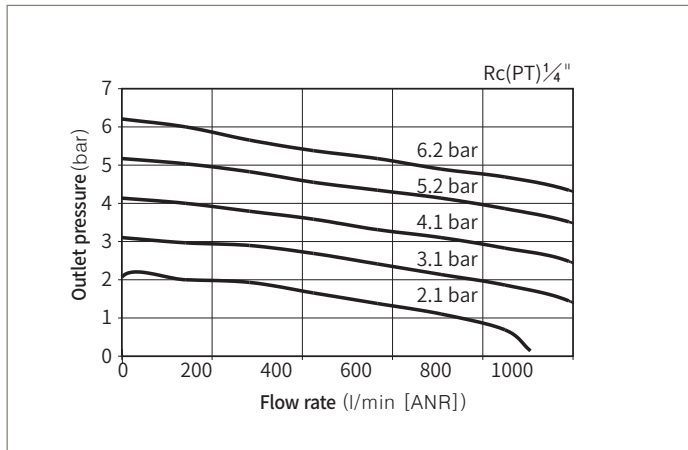


Note) Pressure gauge (GAD40-10) and L-bracket (BRK AFR200) are included.

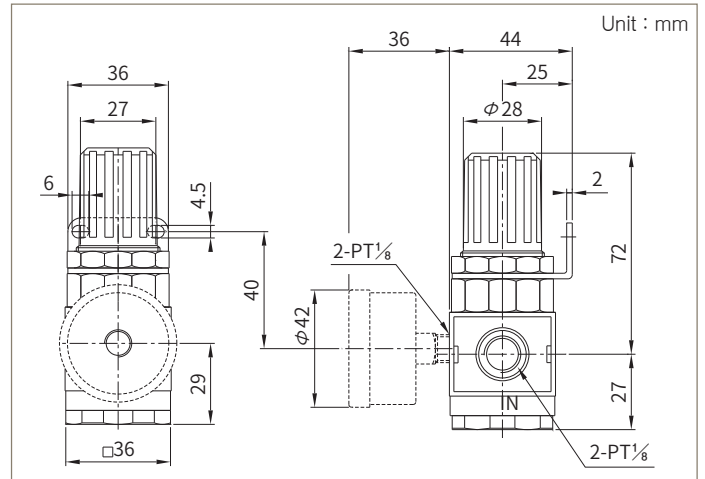
Specification

Category	Unit	AR200
Connection diameter	Rc(PT)	1/4
Gauge Connection diameter	Rc(PT)	1/8
Fluid		Compressed Air
In warranty Pressure	Mpa(bar)	1.5 (15.0)
Max pressure range	Mpa(bar)	1.0 (10.0)
Set pressure range	Mpa(bar)	0.05 ~ 0.85 (0.5 ~ 8.5)
Temperature range of use	°C	0 ~ 60
Structure		Relief type

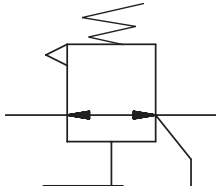
Flow characteristics



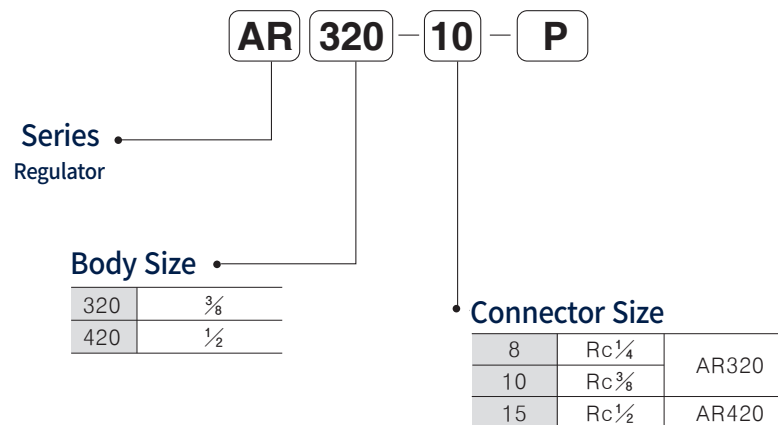
External dimensions



AR320, AR420 Series Regulator

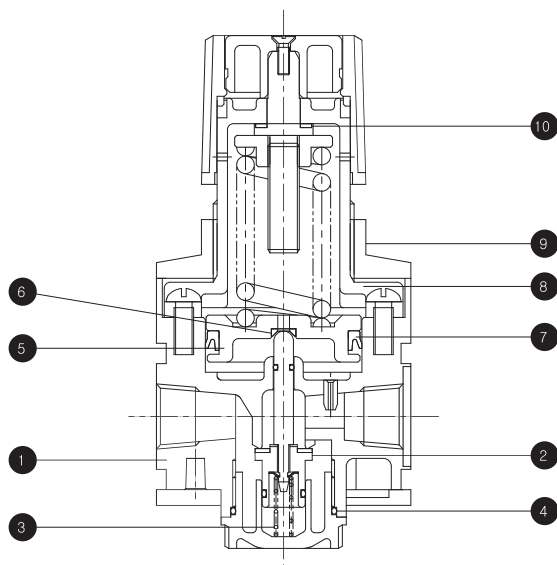


Ordering Code



Note) Pressure gauge (GAD40-10/GAD50-10) and L-bracket (BRK AR320/BRK AR420) are included.

Structure



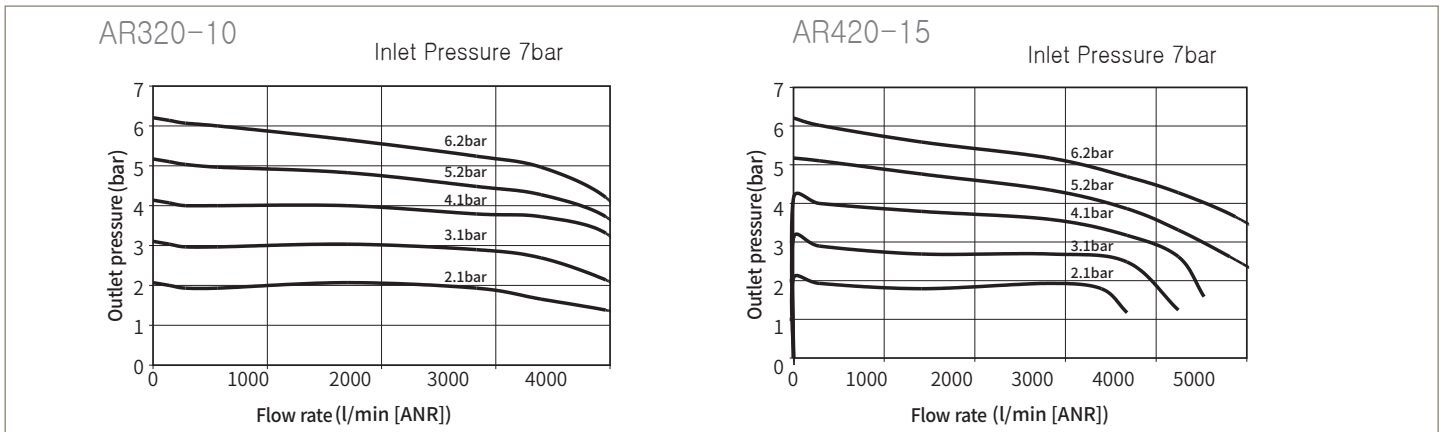
Main parts

No	Part	Material
1	Body	AL Diecast
2	Valve Ass'y	Brass / NBR
3	Valve Spring	Stainless steel
4	O-ring	NBR
5	Piston Ass'y	Resin
6	Valve Sheet	NBR
7	Piston Packing	NBR
8	Bonnet	Resin
9	Bracket fixing nut	Resin
10	Liner	Resin

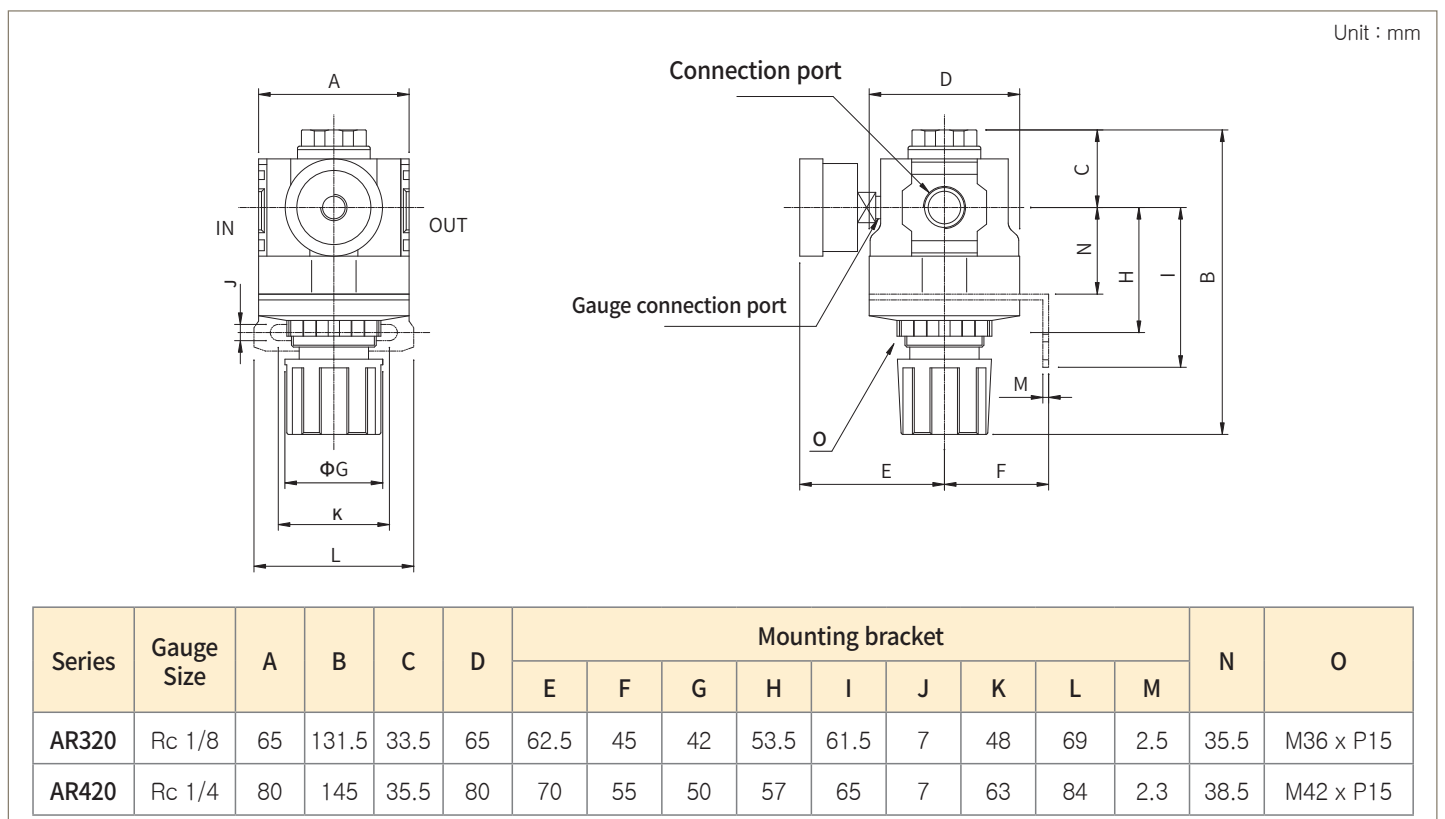
Specification

Category	Unit	AR320	AR420
Connection diameter	Rc(PT)	1/4, 3/8	1/2
Pressure계 Connection diameter	Rc(PT)	1/8	1/4
Fluid		Compressed Air	
In warranty Pressure	Mpa(bar)	1.5 (15.0)	
Max pressure range	Mpa(bar)	1.0 (10.0)	
Set pressure range	Mpa(bar)	0.05 ~ 0.85 (0.5 ~ 8.5)	
Temperature range of use	℃	0 ~ 60	
Structure		Relief type	
Weight	g	370	590

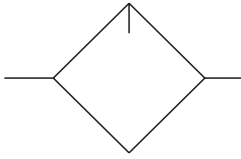
Flow characteristics



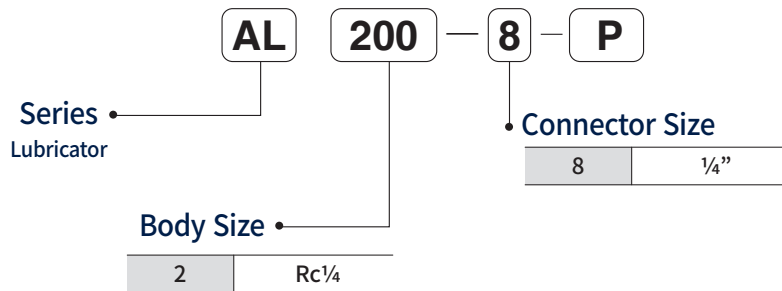
External dimensions



AL200 Series Lubricator



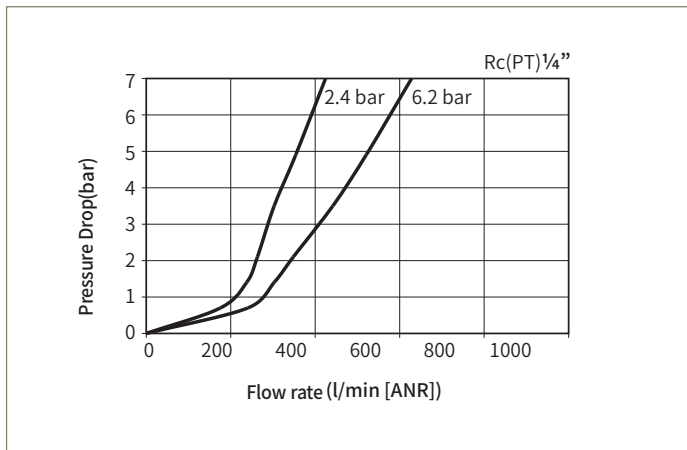
Ordering Code



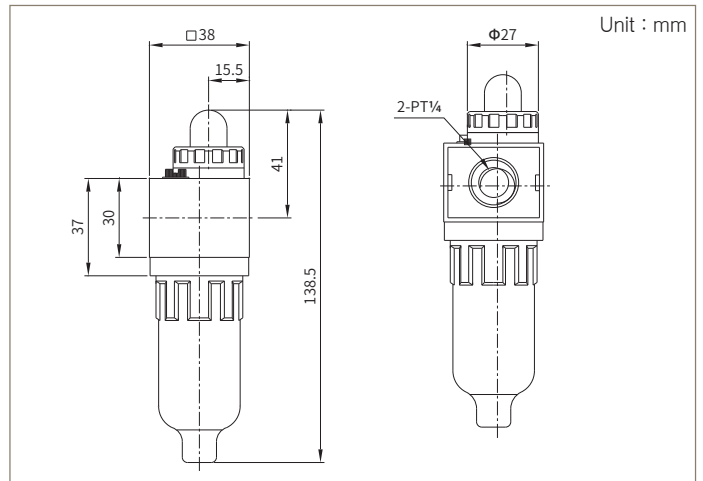
Specification

Catagory	Unit	AL200
Connection diameter	Rc(PT)	1/4
Gauge Connection diameter	Rc(PT)	1/8
Fluid		Air
In warranty Pressure	Mpa(bar)	1.5 (15.0)
Max pressure range	Mpa(bar)	1.0 (10.0)
Temperature range of use	°C	0 ~ 60
Recommended oil type		Turbine oil 1Type (ISO VG32)

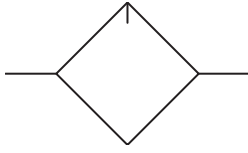
Flow characteristics



External dimensions



AL320, AL420 Series Lubricator



Ordering Code

AL 320 - 10 - P

Series
Lubricator

Body Size

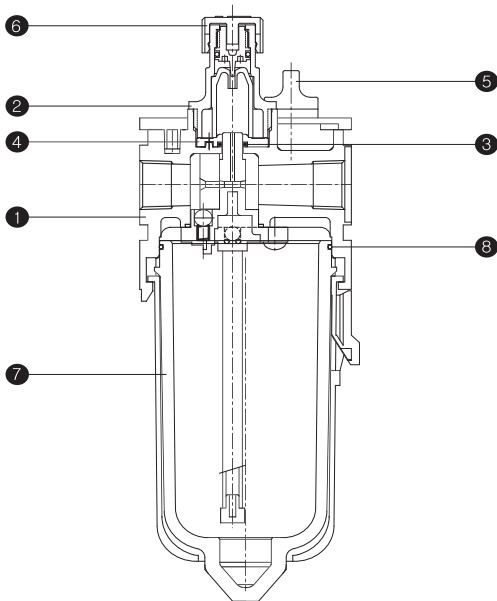
320	$\frac{3}{8}$
420	$\frac{1}{2}$

Connector Size

8	Rc $\frac{1}{4}$	AL320
10	Rc $\frac{3}{8}$	AL320
15	Rc $\frac{1}{2}$	AL420

Note) For individual installation, please order C-bracket (AL320: BKC320, AL420: BKC420) separately.

Structure



Main parts

No	Part	Material
1	Body	AL Diecast
2	Drip Control Body	Brass / NBR
3	O-ring	NBR
4	Seal Plate	NBR
5	Refueling cap	Resin
6	Control knob	Resin
7	Bowl	Resin
8	Bowl O-ring	NBR
9	Bowl Guide	Resin

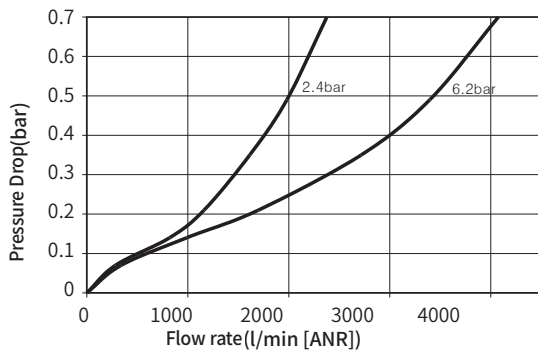
Specification

Category	Unit	AL320	AL420
Connection diameter	Rc(PT)	1/4, 3/8	1/2
Fluid		Compressed Air	
In warranty Pressure	Mpa(bar)	1.5 (15.0)	
Max pressure range	Mpa(bar)	1.0 (10.0)	
Temperature range of use	°C	0 ~ 60	
Recommended oil type		Turbine oil 1Type (ISO VG32)	
Weight	g	300	424

Flow characteristics

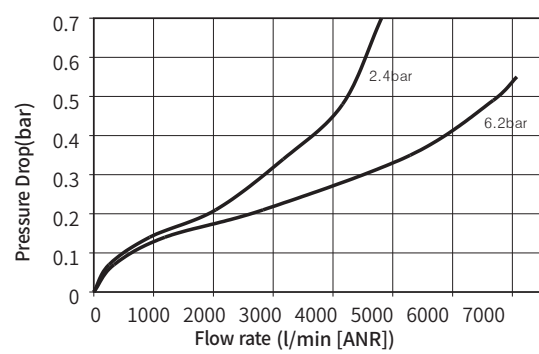
AL320-10

Inlet Pressure 7bar

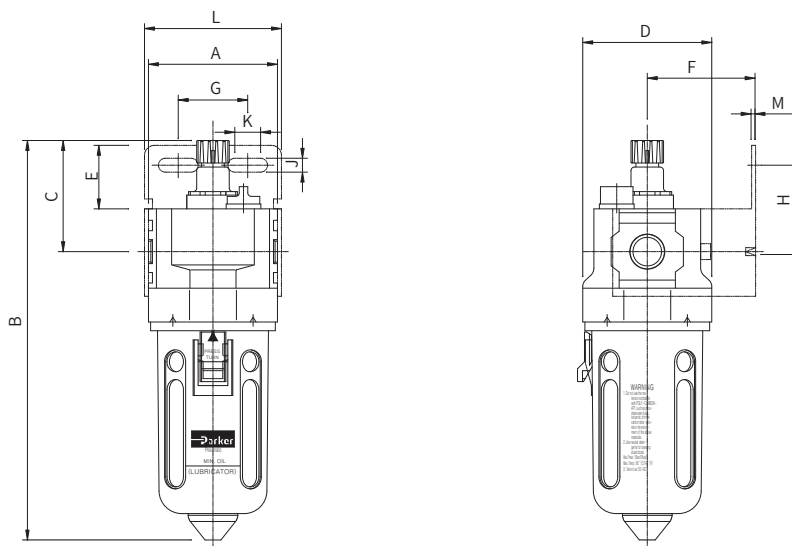


AL420-15

Inlet Pressure 7bar



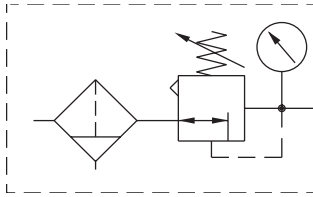
External dimensions



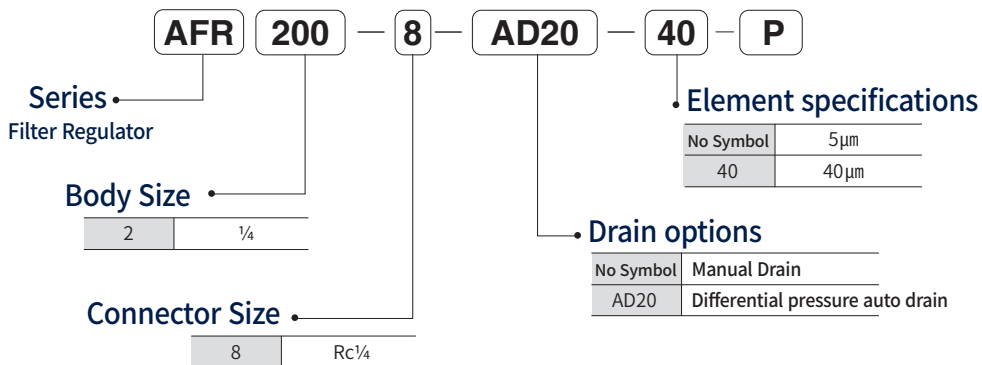
Unit : mm

Series	A	B	C	D	Mounting bracket							
					E	F	G	H	J	K	L	M
AL320	65	198	56	65	32	50	35	45	7	13	69	2.3
AL420	80	216	56	80	32	50	50	45	7	13	85	2.3

AFR200 Series Filter-Regulator



Ordering Code

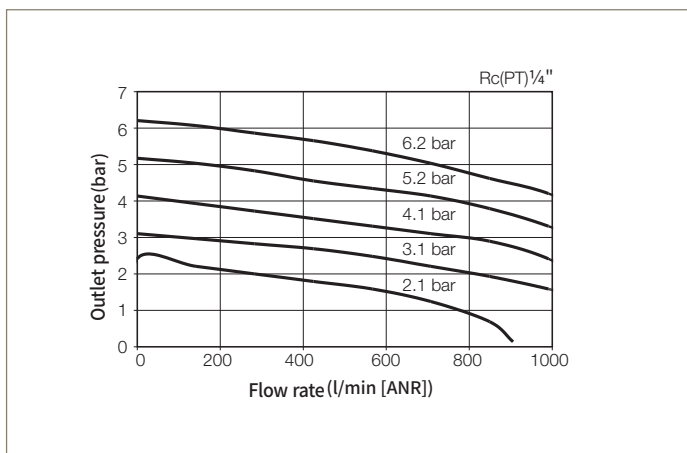


Note) Pressure gauge (GAD40-10) and L-bracket (BRK AFR200) are included.

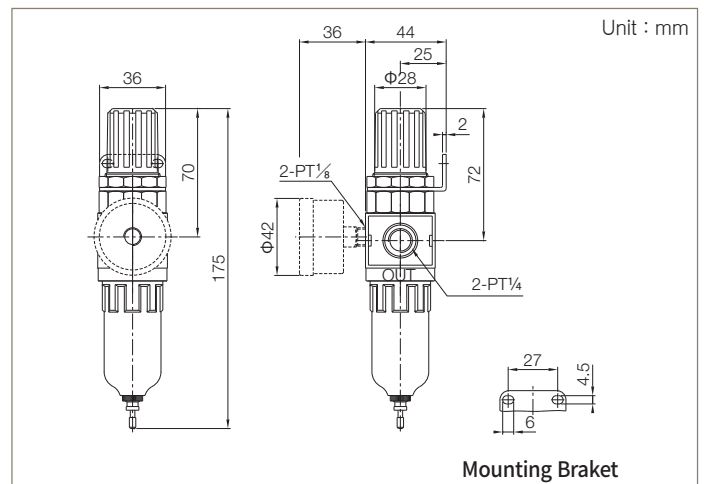
Specification

Category	Unit	AFR200
Connection diameter	Rc(PT)	1/4
In warranty Pressure	Mpa(bar)	1.5 (15.0)
Max pressure range	Mpa(bar)	1.0 (10.0)
Set Pressure range	Mpa(bar)	0.05 ~ 0.85 (0.5 ~ 8.5)
Temperature range of use	°C	0 ~ 60
Standard filtration	μm	5 (Option 40)
Structure		Relief type

Flow characteristics

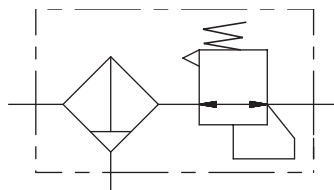


External dimensions



AFR320, AFR420 Series

Filter-Regulator



Ordering Code

AFR 320 10 AD41 40 P

Series
Filter Regulator

Body Size

320	3/8
420	1/2

Connector Size

8	Rc1/4	AU320
10	Rc3/8	
15	Rc1/2	

Element specifications

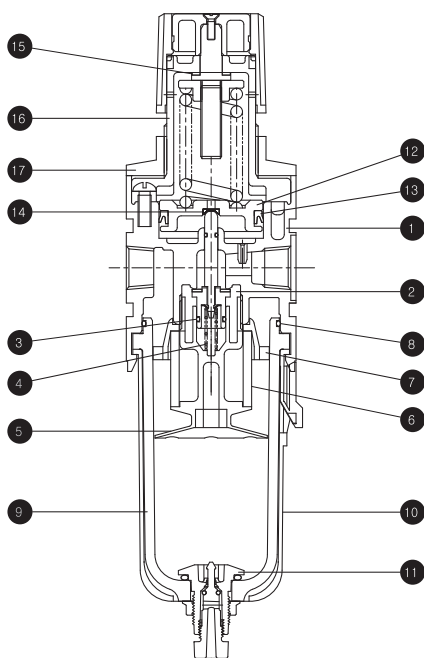
No Symbol	5µm
40	40µm

Drain options

No Symbol	Manual Drain
AD41	Auto drain

Note) Pressure gauge (GAD40-10/GAD50-10) and L-bracket (BRK AR320/BRK AR420) are included.

Structure



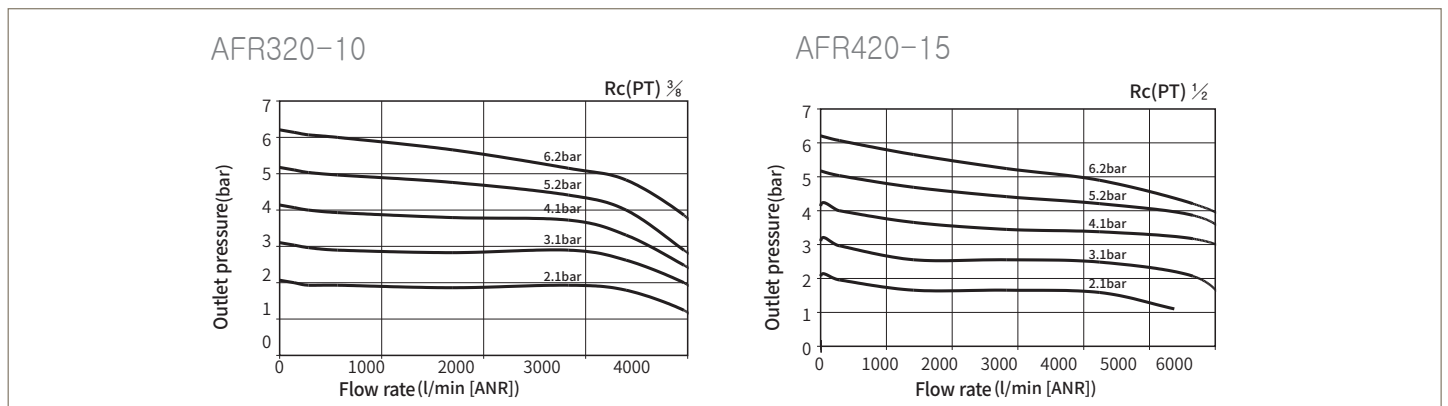
Main parts

No	Part	Material
1	Body	Diecast
2	Valve Ass'y	Brass / NBR
3	Valve O-ring	NBR
4	Valve Spring	Stainless steel
5	Baffle	Resin
6	Element	Resin
7	Deflector	Resin
8	Bowl O-ring	NBR
9	Bowl	Resin
10	Bowl Guide	Resin
11	Drain Ass'y	Resin
12	Piston Ass'y	Resin
13	Piston Packing	NBR
14	Valve Sheet	NBR
15	Liner	Resin
16	Bonnet	Resin
17	Bracket fixing nut	Resin

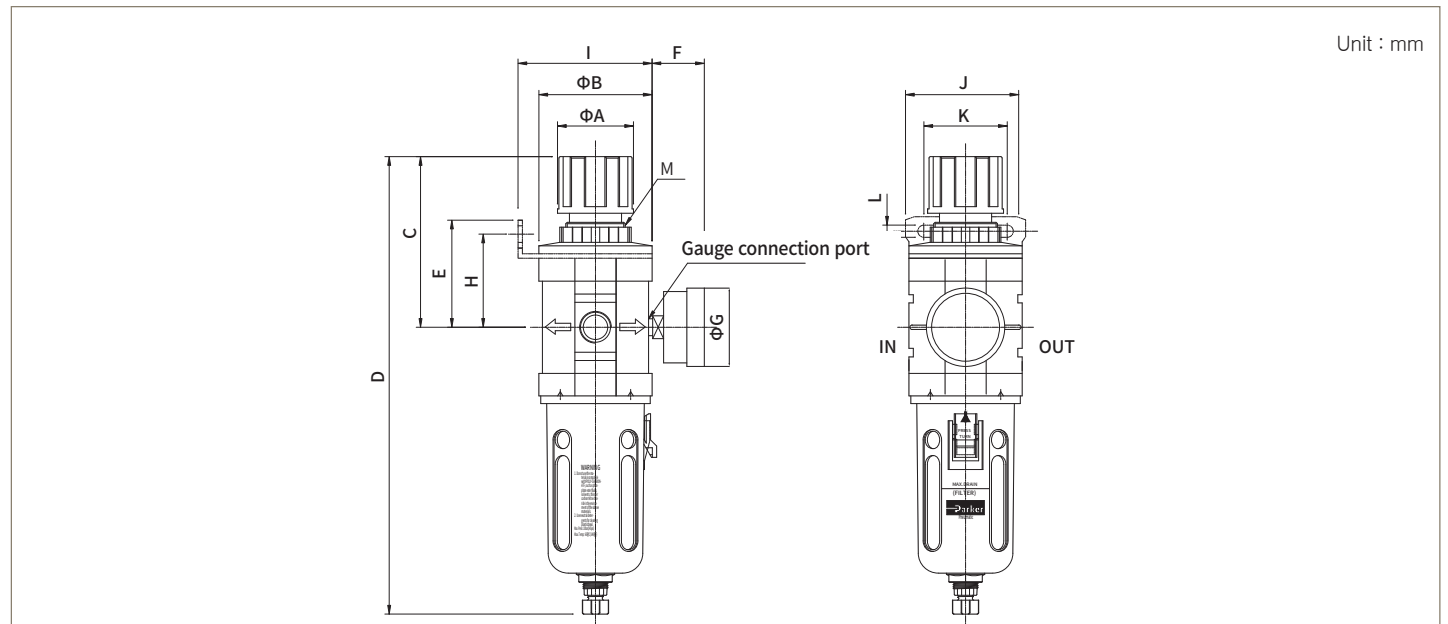
Specification

Catagory	Unit	AFR320	AFR420
Connection diameter	Rc(PT)	1/4, 3/8	1/2
In warranty Pressure	Mpa(bar)	1.5 (15.0)	
Max pressure range	Mpa(bar)	1.0 (10.0)	
Set Pressure range	Mpa(bar)	0.05 ~ 0.85 (0.5 ~ 8.5)	
Temperature range of use	°C	0 ~ 60	
Filtration	μm	5 (Option 40)	
Structure		Relief type	
Weight	g	546	900

Flow characteristics



External dimensions

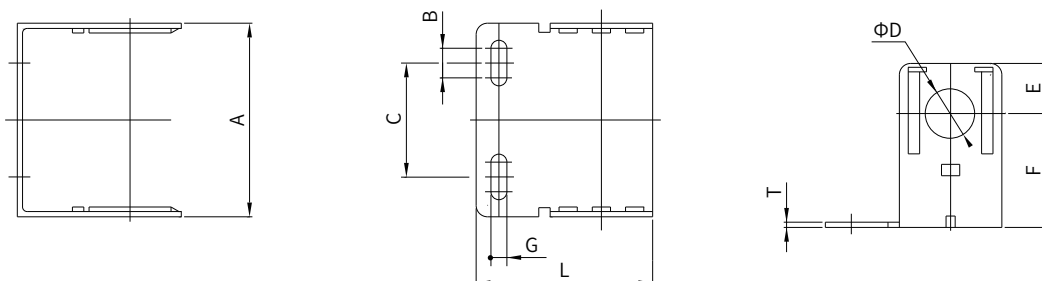


Series	Gauge Size	A	B	C	D	Mounting bracket								M
						E	F	G	H	I	J	K	L	
AFR320	Rc 1/8	42	65	96	246	61.5	30	45	53.5	77	69	48	7	M36 x P1.5
AFR420	Rc 1/4	50	80	110	279	65	35	54	57	94.5	84	63	7	M42 x P1.5

Accessory

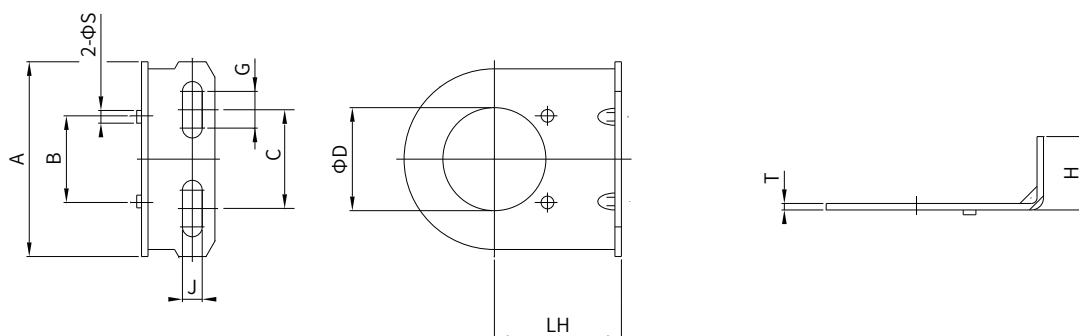
Unit : mm

Bracket for AF/AL (BKC)



Part Number	Application	A	B	C	ΦD	E	F	G	L	T
BKC320	AL320, AF320	70.1	13	35	17.3	22	50	7	77.5	2.3
BKC420	AL420, AF420	84.6	13	50	21.7	22	50	7	77.5	2.3

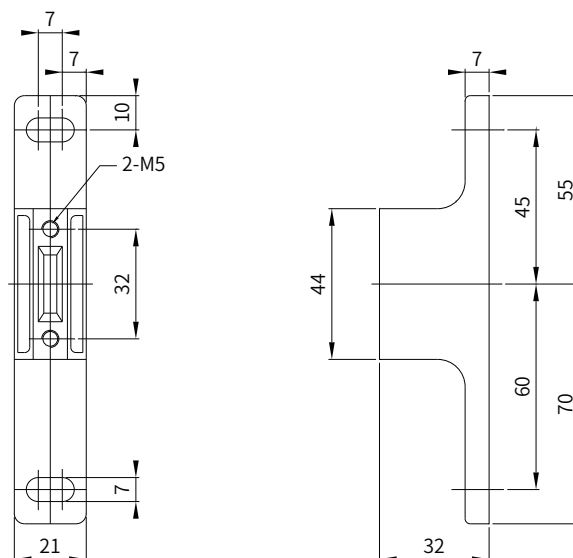
Bracket for AR/AFR (BRK)



Part Number	Application	A	B	C	ΦD	J	G	H	LH	S	T
BRK320	AFR320, AR320	69	30.8	35	36.5	7	13	50	45	4.5	2.3
BRK420	AFR420, AR420	84	36.8	50	42.5	7	13	50	55	4	2.3

Bracket for AU (BKU)

Part Number	Application
BKU320	AU320
BKU321	AU321
BKU420	AU420
BKU421	AU421



* BKU320 and BKU420 are comprised of 2 pieces in 1 set.

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