



Symbol



Product feature

1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. In addition to standard type, lower pressure type is optional (The highest adjustable pressure is 0.4MPa).

Ordering code

AR		2000	L		1	
Model		Type code		Pressure gauge		Thread type
AR	A Series regulator	Blank	Standard(0.9MPa)	Blank	Pressure gauge	Thread type
BR	B Series regulator	L	Lower pressure(0.4MPa)	N	No pressure gauge	Scale
Port size		Accessories		Scale		
Series	Port size	Blank	Bracket	1	MPa	
AR	1500: 1/8"	J	No bracket	2	psi	
	2000: 1/4"			3	bar	
BR	3000: 3/8"			4	Double scale(psi, kgf/cm ²)	
	4000: 1/2"					
				Thread type		
				Blank	PT	MPa or kgf/cm ² & psi
				G	G	bar
				T	NPT	psi

Specification

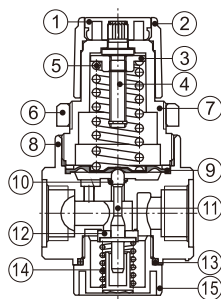
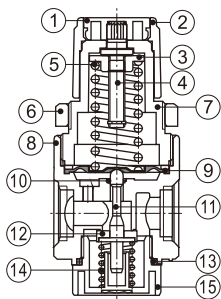
Model	AR1500	AR2000	BR2000	BR3000	BR4000
Fluid	Air				
Port size	1/8"	1/4"	1/4"	3/8"	1/2"
Pressure range	0.05~0.9MPa(7~130psi)				
Max. pressure	1.0MPa(145psi)				
Proof pressure	1.5MPa(215psi)				
Temperature range	-5~70°C				
Weight	200g			230g	

Note: PT thread, G thread and NPT thread are available.

Inner structure and material of major parts

AR

BR



No.	Item	Material
1	Push button	POM
2	Adjusting button	POM
3	Adjusting nut	Steel
4	Adjusting pillar	Steel
5	Adjusting spring	SWC
6	Fixed ring	POM
7	Adjusting seat	POM
8	Body	Aluminum alloy
9	Diaphragm	SUS304 & rubber
10	Needle O-ring	NBR
11	Balance needle	POM
12	Needle gasket	Aluminum alloy & rubber
13	Cap O-ring	NBR
14	Return spring	Stainless steel
15	Regulator cap	POM

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

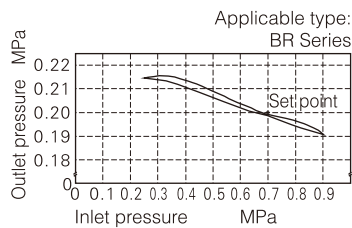
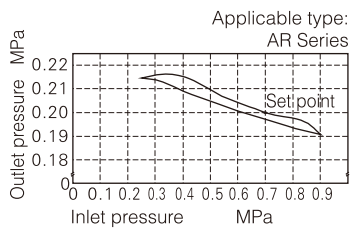
ACR

F804

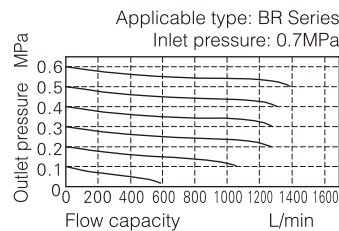
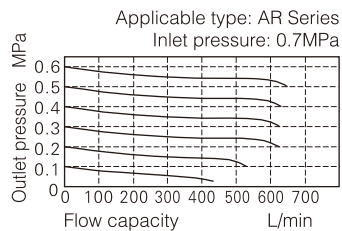
PG

FRL
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
F2
F1
F
R
L
USFRL
USFR/L
USFR
USF
USR
USL
QSL
QTY
QIU
QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG

Pressure chart

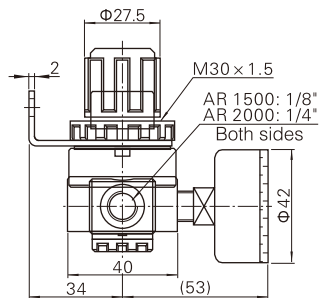
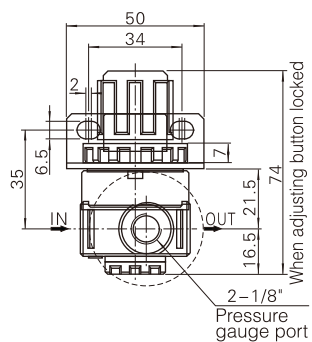


Flow chart

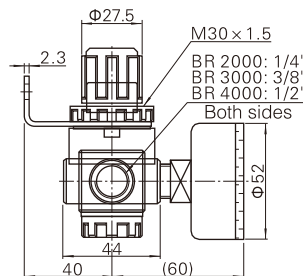
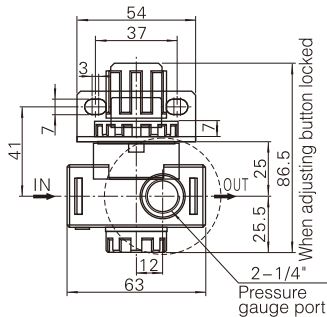


Dimensions

AR



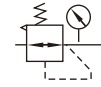
BR



FRL
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
F2
F1
F
R
L
USFRL
USFR/L
USFR
USF
USR
USL
QSL
QTY
QIU
QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG



Symbol



Product feature

1. Panel support can be chosen for the installation of regulator with independent use in pipeline.
2. The structure is delicate and compact, which is convenient for installation and application.
3. The performance of pressure adjustment is reliable and steady.
4. In addition to standard type, lower pressure type is optional (The highest adjustable pressure is 0.4 MPa).

Ordering code

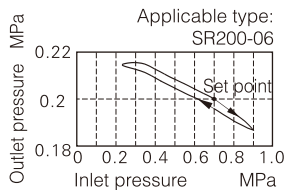
SR	200	08	L			1	
Model		Port size	Type code		Pressure gauge		Thread type
SR Regulator(Mini type)		06 1/8" 08 1/4"	Blank Standard L Lower pressure		Blank Pressure gauge N No pressure gauge		Thread type Scale
Series code			Accessories		Scale		Blank PT MPa or kgf/cm ² & psi G G bar T NPT psi
200 200 Series			Blank Bracket J No bracket		1 MPa 2 psi 3 bar 4 Double scale (psi, kgf/cm ²)		

Specification

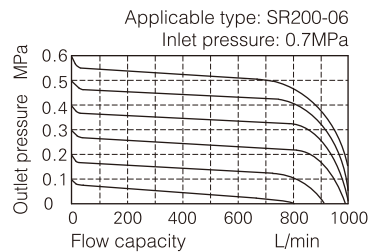
Model	SR200-06	SR200L-06	SR200-08	SR200L-08
Fluid	Air			
Port size	1/8"		1/4"	
Pressure range	Standard type: 0.05~0.9MPa(7~130psi); Lower pressure type: 0.03~0.4MPa(4~57psi)			
Max. pressure	1.0MPa(145psi)			
Proof pressure	1.5MPa(215psi)			
Temperature range	-20~70°C			

Note: PT thread, G thread and NPT thread are available.

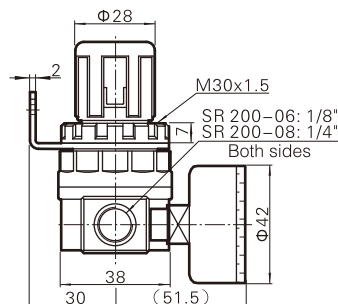
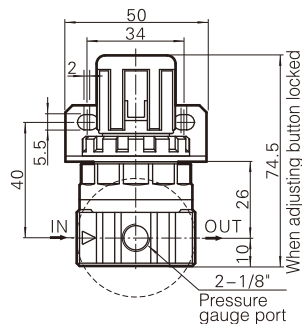
Pressure chart



Flow chart



Dimensions



Symbol



Product feature

1. Back pressure structure, compact type, cost-effective, installation time saving.
2. Broad regulating range; low-pressure type is optional other than the standard type; stable output pressure; applicable to situation which has low expectation on output pressure but high expectation on performance and cost-effectiveness.
3. Single unit installation; easy to mount.

Ordering code

SDR	200	08	L			1		
Model	Port size		Type code		Pressure gauge		Thread type	
SDR SDR Series regulator	Series	Port size	Blank	Standard	Blank	Pressure gauge	Blank	PT
	100	M5: M5 06: 1/8"	L	Lower pressure	N	No pressure gauge	G	G
Series code			Accessories		Scale		T	NPT
100 100 Series 200 200 Series	200	06: 1/8" 08: 1/4"	Blank	Bracket	1	MPa		
			J	No bracket(standard configuration)	2	psi		
					3	bar		

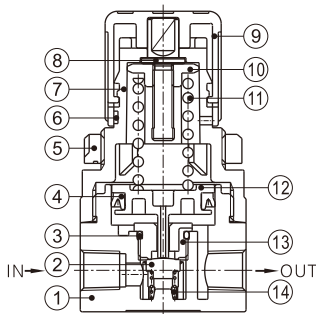
Specification

Model	SDR100-M5	SDR100-06	SDR200-06	SDR200-08	SDR100L-M5	SDR100L-06	SDR200L-06	SDR200L-08
Fluid	Air							
Pressure range	0.05~0.9MPa(7~130psi)				0.03~0.4MPa(4~57psi)			
Max. pressure	1.0MPa(145psi)				0.4MPa(58psi)			
Proof pressure	1.5MPa(215psi)							
Temperature range	-20~70°C							
Port size	M5	1/8"	1/4"	1/4"	M5	1/8"	1/8"	1/4"

Note: PT thread, G thread and NPT thread are available.

Inner structure and material of major parts

SDR200



No.	Item	Material
1	Body	Aluminum alloy
2	Needle gasket	NBR
3	O-ring	NBR
4	O-ring	NBR
5	Fixed ring	POM
6	Identification ring	POM
7	Adjusting seat	POM
8	Adjusting pillar	Brass
9	Adjusting button	POM
10	Adjusting nut	Steel
11	Adjusting spring	SWC
12	Piston rod	POM
13	Adjusting seat	POM
14	Return spring	SUS304

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

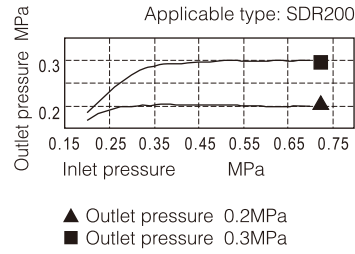
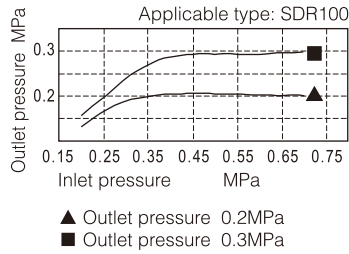
ACR

F804

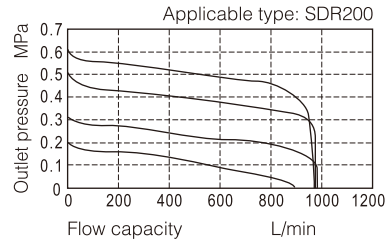
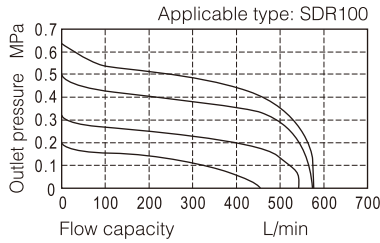
PG

- FRL
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR**
- AC
- AW
- AF
- AR
- AL
- F3
- F2
- F1
- F
- R
- L
- USFRL
- USFR/L
- USFR
- USF
- USR
- USL
- QSL
- QTY
- QIU
- QTYH
- QSLH
- QFRH
- AFF
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- AL(Big)
- AR(Big)
- AD402
- AH402
- AD-5
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- ACR
- F804
- PG

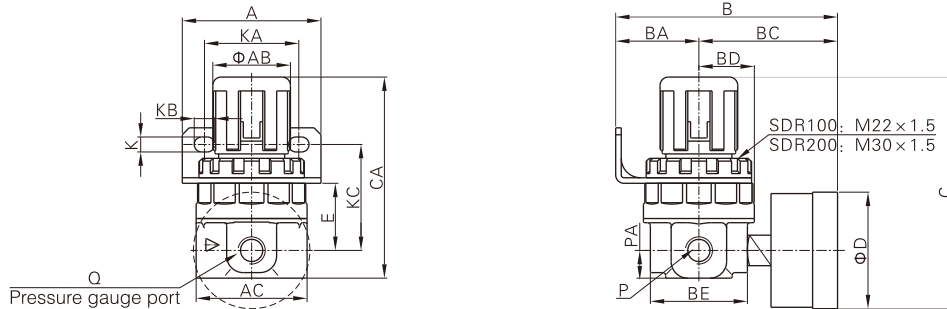
Pressure chart



Flow chart



Dimensions



Model/Item	A	AB	AC	B	BA	BC	BD	BE	C	CA	D	E	K	KA	KB	KC	P	PA	Q
SDR100□M5	35	20	32	65.5	26	39.5	14.5	29	62.5	54.5	33	17	5.5	22	7	29	M5	7.5	1/16"
SDR100□06	35	20	32	65.5	26	39.5	14.5	29	62.5	54.5	33	17	5.5	22	7	29	1/8"	7.5	1/16"
SDR200□06	50	28	40	80	30	50	20	35	83.5	72.5	42	24	5.5	34	7.5	38	1/8"	10	1/8"
SDR200□08	50	28	40	80	30	50	20	35	83.5	72.5	42	24	5.5	34	7.5	38	1/4"	10	1/8"

Note: Bracket and pressure gauge are optional.

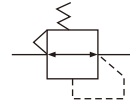
Attentions of application



Unlock the regulating knob before pressure adjustment, then lock it after the adjustment. Otherwise, may cause the regulating knob damage or the outlet pressure change.

1. Pull the regulating knob to unlock, when the orange marking ring below the regulating knob appears, indicating that the regulating knob is unlocked.
2. Push the regulating knob to lock, when the orange marking ring below the regulating knob disappears completely, indicating that the regulating knob is locked.

Symbol



Ordering code

AR	Model
AR	A Series regulator

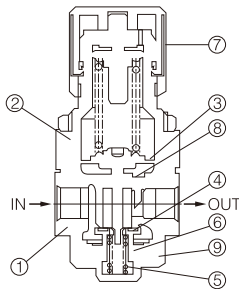
2000	Series code
1000	1000 Series
2000	2000 Series
3000	3000 Series
4000	4000 Series
5000	5000 Series

02	Port size
M5	M5
02	1/4"
03	3/8"
04	1/2"
06	3/4"
10	1"

Specification

Model	AR1000-M5	AR2000-02	AR3000-02	AR3000-03	AR4000-03	AR4000-04	AR4000-06	AR5000-06	AR5000-10
Port size	M5×8	1/4"	1/4"	3/8"	3/8"	1/2"	3/4"	3/4"	1"
Pressure gauge size	1/16"	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"	1/4"
Rated flow (L/min)	100	550	2500	2500	6000	6000	6000	8000	8000
Proof pressure	1.5MPa{15.3kgf/cm ² }								
Max. pressure	1.0MPa{10.2kgf/cm ² }								
Temperature range	5~60°C								
Pressure range	AR1000: 0.05-0.7MPa(0.51~7.1kgf/cm ²); AR2000~5000: 0.05~0.85MPa(0.51~8.7kgf/cm ²)								
Valve type	With overflow								
Weight(kg)	0.08	0.27	0.41	0.41	0.84	0.84	0.94	1.19	1.19

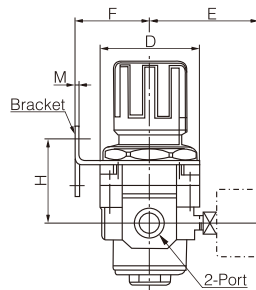
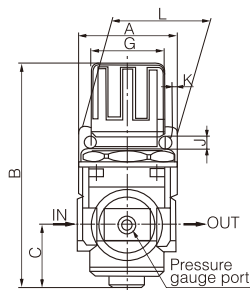
Inner structure



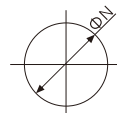
Main parts

No.	Parts name	Material		
		AR1000	AR2000~3000	AW4000~5000
1	Valve body	Zinc die casting	Aluminum die casting	
2	Valve cover	Reinforced Nylon		Aluminum die casting
3	Film	Rubber		
4	Valve core	Brass, Rubber		
5	Spring	Stainless steel		
6	O-ring	Rubber		
7	Hand wheel	Reinforced nylon		
8	O-ring	Rubber		
9	O-ring	Rubber		

Dimensions



Panel cutting hole



AW1000: Max thickness 3.5
AW2000: Max thickness 5

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N
AR1000	M5×0.8	30	61.5	11	25	26	25	28	30	4.5	6.5	40	2.0	20.5
AR2000	1/4"	40	95	17	40	56.8	30	30	45	5.4	15.4	55	2.3	33.5
AR3000	1/4"-3/8"	53	127.5	35	53	60.8	41	41	46	6.5	8.0	53	2.3	42.5
AR4000	3/8"-1/2"	70	149.5	37.5	70	65.5	50	50	54	8.5	10.5	70	2.3	52.5
AR4000-06	3/4"	75	154.5	40.5	70	69.5	50	50	56	8.5	10.5	70	2.3	52.5
AR5000	3/4"-1"	90	168	48	90	75.5	70	70	65.8	11	13	90	3.2	52.5

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

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AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

F804

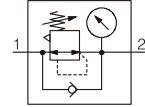
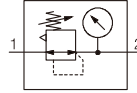
PG

- FRL
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR
- AC
- AW
- AF
- AR
- AL
- F3
- F2
- F1
- F
- R**
- L
- USFRL
- USFR/L
- USFR
- USF
- USR
- USL
- QSL
- QTY
- QIU
- QTYH
- QSLH
- QFRH
- AFF
- AF(Big)
- AL(Big)
- AR(Big)
- AD402
- AH402
- AD-5
- IR
- ITV
- ACR
- F804
- PG



Symbol

R-...-MICRO/MINI/MIDI With pressure gauge R-...-I-MINI/MIDI R-...-MAXL With pressure gauge



Installation and use

The R maintain inputting operating pressure constantly despite fluctuation in line pressure and the amount of air consumed.

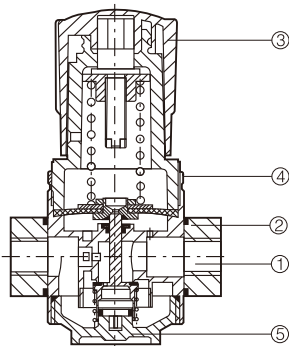
Ordering code

R	<input type="checkbox"/>	7	MINI	E
Series	Port size	Working pressure	Size	Shell material
F Regulator	1/8" 1/2" 1/4" 3/4" 3/8" 1"	Blank 12bar 7 7bar	MICRO MINI MIDI MAXI	Blank Zinc E Alu.

Specification

Size	MICRO					MINI			MIDI			MAXI			
Pneumatic connection	M5	M7	1/8"	QS4	QS6	1/8"	1/4"	3/8"	1/4"	3/8"	1/2"	3/4"	1/2"	3/4"	1"
Operating medium	Compressed air					Filtered compressed air, lubricated or unlubricated, grade of filtration 40µm.									
Design	Directly actuated diaphragm regulator												Pilot actuated piston regulator		
													Directly actuated diaphragm regulator		
Type of mounting	Via accessories														
	In-line installation														
	Front panel mounting														
Assembly position	Any														
Regulator lock	Rotary knob with lock														
	-					Rotary knob with lock									
Input pressure (bar)	1...10					1...16									
Max. hysteresis (bar)	0.3					0.2					0.4				
Pressure regulation range (bar)	0.5...7					0.5...7					0.5...12				
Pressure indication	Via pressure gauge														
	M5 Prepared					1/8" Prepared					1/4" Prepared				

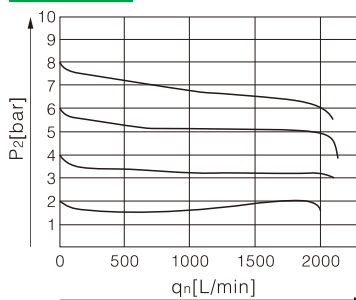
Inner structure



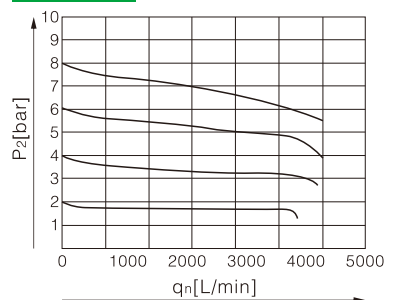
No.	Item	Material
1	Casting	Die-casting zinc
2	Connecting plate	Die-casting aluminum
3	Adjustable knob	POM
4	Knurled nut	Aluminum
5	Tight cover	Zinc alloy
6	Seal	NBR

Standard flow rate qn as function of the outpt pressure p2

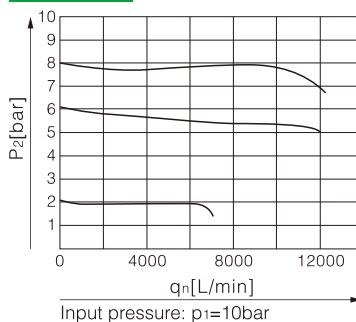
R-1/4-MINI



R-1/2-MIDI

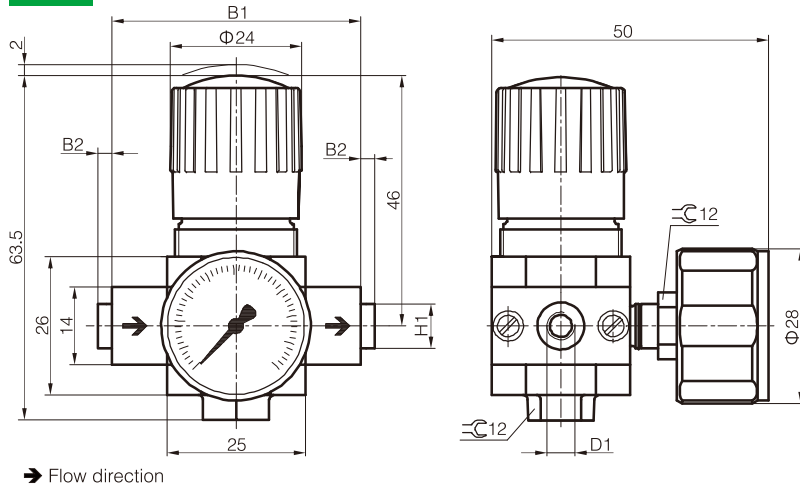


R-1-MAXI



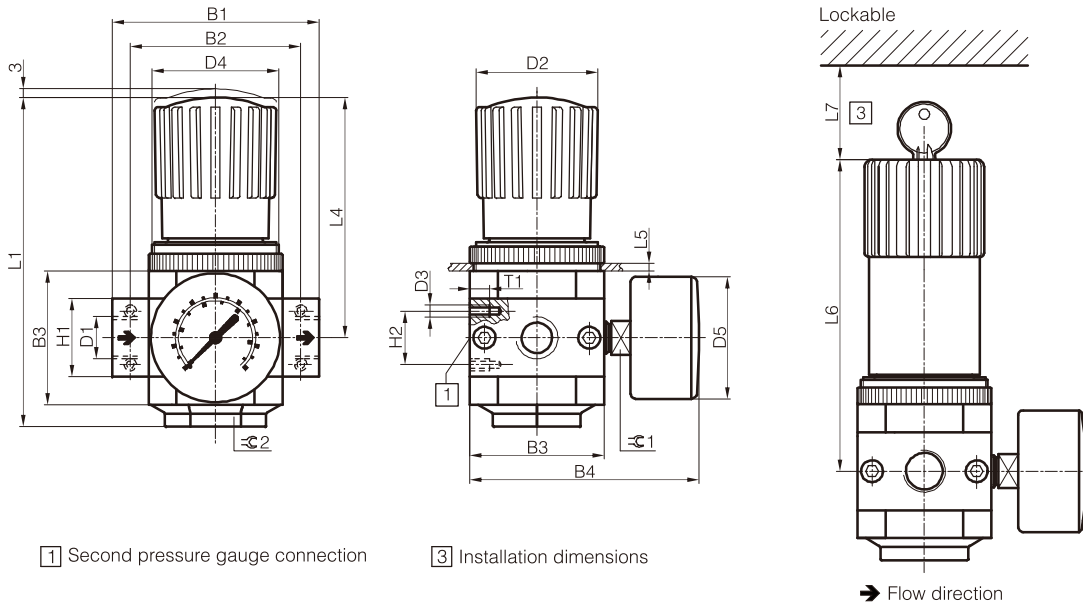
Dimensions

MICRO



Model	B1	B2	D1	H1
R-M5-D-7-MICRO	25	-	M5	-
R-M7-D-7-MICRO(B)			M7	
R-1/8-D-7-MICRO	45	~2.5	1/8"	~8
R-QS4-D-7-MICRO			QS4	
R-QS6-D-7-MICRO			QS6	

MINI/MIDI/MAXI



1 Second pressure gauge connection 3 Installation dimensions

Model	B1	B2	B3	B4	D1	D2Φ	D3	D4	D5Φ	H1	H2	L1	L4	L5 max.	L6	L7	T1	±1	±2
MINI																			
R-1/8-D(1)-MINI	64	52	40	76	1/8"	31	M4	M36×1.5	41	20	11	96	68	3	98	60	7	14	22
R-1/4-D(1)-MINI					1/4"														
R-3/8-D(1)-MINII	70				3/8"														
MIDI																			
R-1/4-D(1)-MIDI	85	70	55	95	1/4"	50	M5	M52×1.5	50	32	22	135	99	5	130	60	8	14	24
R-3/8-D(1)-MIDI					3/8"														
R-1/2-D(1)-MIDI					1/2"														
R-3/4-D(1)-MIDI					3/4"														
MAXI																			
R-1/2-D-MAXL	96	80	66	107	1/2"	31	M5	M36×1.5	50	32	22	125	82	4	111	60	8	14	24
R-1/2-D-DI-MAXL						49		M52×1.5				148	105		135				
R-3/4-D-MAXL	116	91	66	107	3/4"	31	M5	M36×1.5	50	40	22	125	82	4	111	60	8	14	24
R-3/4-D-DI-MAXL						49		M52×1.5				148	105		135				
R-1-D-MAXL	116	91	66	107	1"	31	M5	M36×1.5	50	40	22	125	82	4	111	60	8	14	24
R-1-D-DI-MAXL						49		M52×1.5				148	105		135				

Note: This product conforms with ISO 1179-1 standard and the ISO 228-1 standard.

FRL

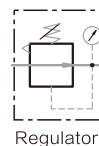
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
F2
F1
F

R

L
USFRL
USFR/L
USFR
USF
USR
USL
QSL
QTY
QIU
QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG

FRL
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
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R
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USFRL
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QSL
QTY
QIU
QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG

Symbol



Product feature

1. For high pressure use, corrosion and chemical resistance.
2. Good performance for outdoor facility.
3. Suitable for semi-conductor industry.
4. Accurate and sensitive pressure setting.
5. Strict quality control.

Ordering code

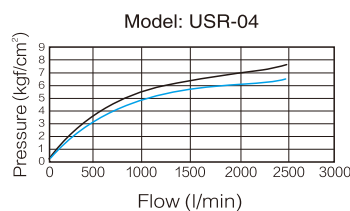
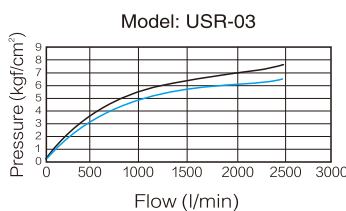
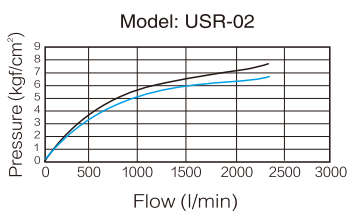
USF	B	-	02	N
Model	Pressure		Port size	Thread
USR Stainless steel regulator	Blank 12~30kgf/cm ² (for 1/4", 3/8", 1/2") 12~28kgf/cm ² (for 3/4", 1") B 0.5~12kgf/cm ²		02 1/4" 03 3/8" 04 1/2" 06 3/4" 08 1"	Blank G N NPT R Rc

* Spring: USRB = SUS303, USR = Alloy steel

Specification

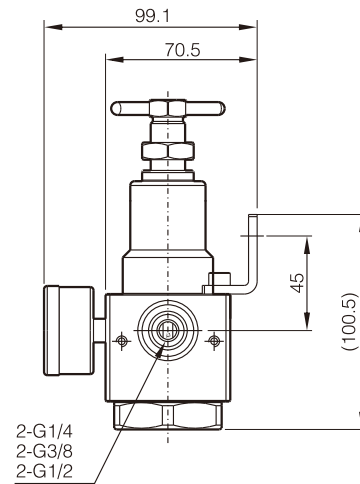
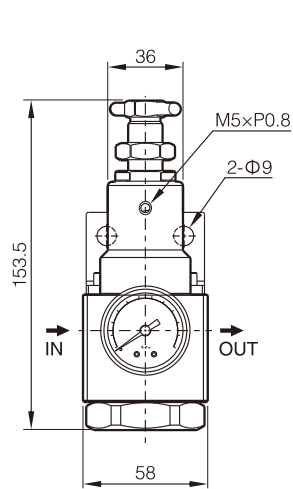
Model	USR-02	USR-03	USR-04	USR-06	USR-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Regulator construction	Piston				
Body material	Stainless steel SUS316				
Pressure gauge material	Case: Stainless steel SUS304, Thread: Stainless steel SUS316				
Operating pressure range	USRB: 0.5~12 kgf/cm ² USR: 12~30 kgf/cm ²			USRB: 0.5~12 kgf/cm ² USR: 12~28 kgf/cm ²	
Max. inlet pressure	60 kgf/cm ²				
Max. flow rate l/min (ANR)	1950	2250	2520	B9000/18000	B9400/22000
Ambient temperature	-10°C~70°C				
Net weight	1400g			3400g	
Accessories	Pressure gauge (0~20kg), Plug, Mounting bracket set				
Option	Pressure gauge (0~10kg), Pressure gauge (0~30kg)				

Flow chart

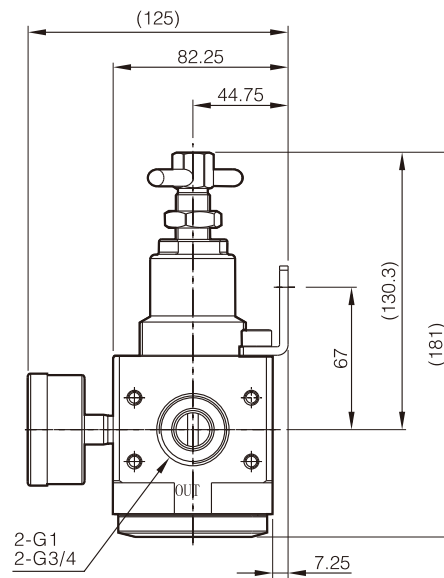
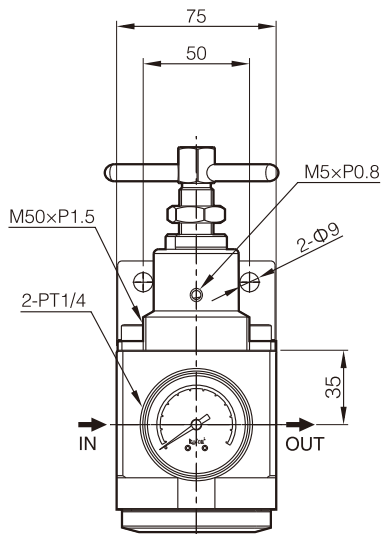


Dimensions

USR-02, 03, 04



USR-06, 08



FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

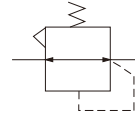
F804

PG

- FRL
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR
- AC
- AW
- AF
- AR
- AL
- F3
- F2
- F1
- F
- R
- L
- USFRL
- USFR/L
- USFR
- USF
- USR
- USL
- QSL
- QTY**
- QIU
- QTYH
- QSLH
- QFRH
- AFF
- AF(Big)
- AL(Big)
- AR(Big)
- AD402
- AH402
- AD-5
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- ITV
- ACR
- F804
- PG



Symbol



Ordering code

Q	Series code
Q	Q Series air treatment component

TY	Function code
TY	Regulator

20	Port size
6	1/8"
8	1/4"
10	3/8"
15	1/2"
20	3/4"
25	1"
40	1 1/2"

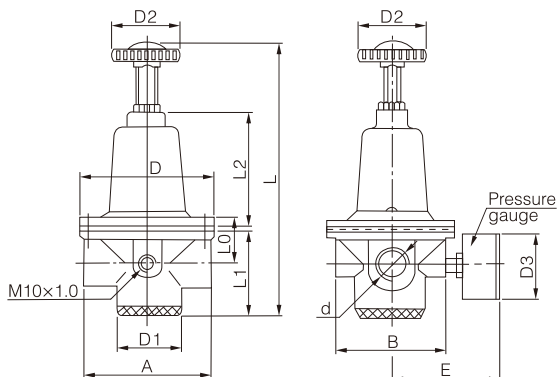
Specification

Model	QTY-6	QTY-8	QTY-10	QTY-15	QTY-20	QTY-25	QTY-40
Working temperature	5~60℃						
Nominal primary pressure	1.0MPa						
Proof pressure	1.5MPa						
Max. adjusted range	0.05~0.63MPa						

Pressure drop-air flow rate chart

Model	The flow-rate was measured in the condition of 5% pressure drop			
	Air flow-rate(L/min)			
	Primary pressure(MPa)			
	0.25	0.4	0.63	0.8
QTY-6	100	120	160	190
QTY-8	680	770	860	900
QTY-10	720	860	1000	1100
QTY-15	900	1100	1200	1300
QTY-20	1650	1800	1980	2100
QTY-25	1900	2250	2450	2650
QTY-40	2150	4020	2920	3200

Dimensions

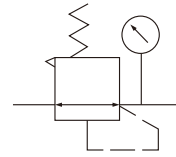


Model	Port size d	A	ΦD	ΦD1	ΦD2	ΦD3	L0	L1	L2	E	Lmax
QTY-6	1/8"	80	64	80	40	58	16	52	69	80	173
QTY-8	1/4"										
QTY-10	3/8"										
QTY-15	1/2"	80	64	80	40	58	21	58	69	80	181
QTY-20	3/4"	108	105	120	50	58	30	78	108	100	250
QTY-25	1"										
QTY-40	1 1/2"										

- FRL
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR
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- R
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- USF
- USR
- USL
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- QIU
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- AH402
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- PG



Symbol



Ordering code

QTYH		-	□	-	15
Model		Material and use		Port size	
QTYH	High pressure regulator	Blank	Aluminium	08	1/4"
		SF	Stainless steel food industry	10	3/8"
		SC	Corrosive environment	15	1/2"
				20	3/4"
				25	1"

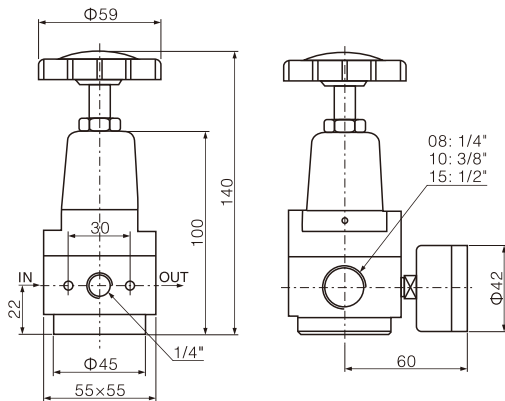
Specification

Model	QTYH-08	QTYH-10	QTYH-15	QTYH-20	QTYH-25
Operating fluid	Air or inert gas				
Pipe size	1/4"	3/8"	1/2"	3/4"	1"
Pressure range	0.05MPa~3.5MPa				
Max. input pressure	4MPa				
Operating temperature	-25~80°C				

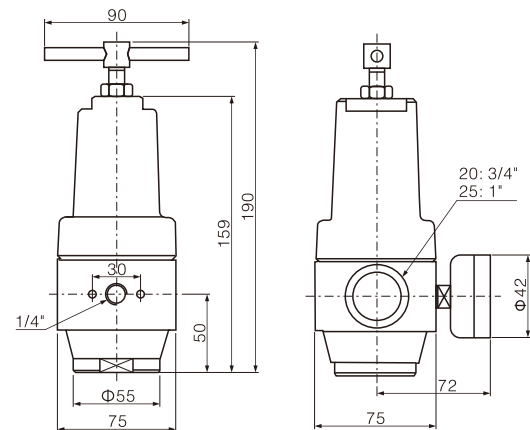
Note: PT thread, G thread and NPT thread are available.

Dimensions

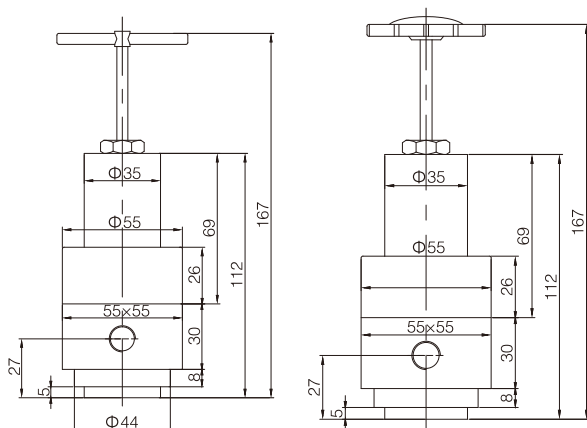
QTYH-08/10/15



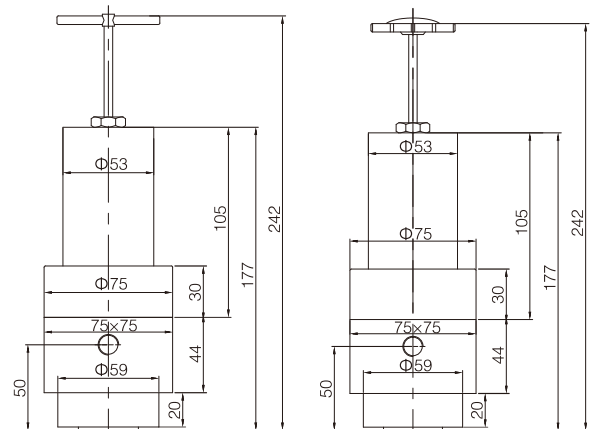
QTYH-20/25



QTYH-SF/SC-08/10/15



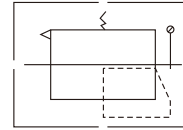
QTYH-SF/SC-20/25



- FRL
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR
- AC
- AW
- AF
- AR
- AL
- F3
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Symbol



Ordering code

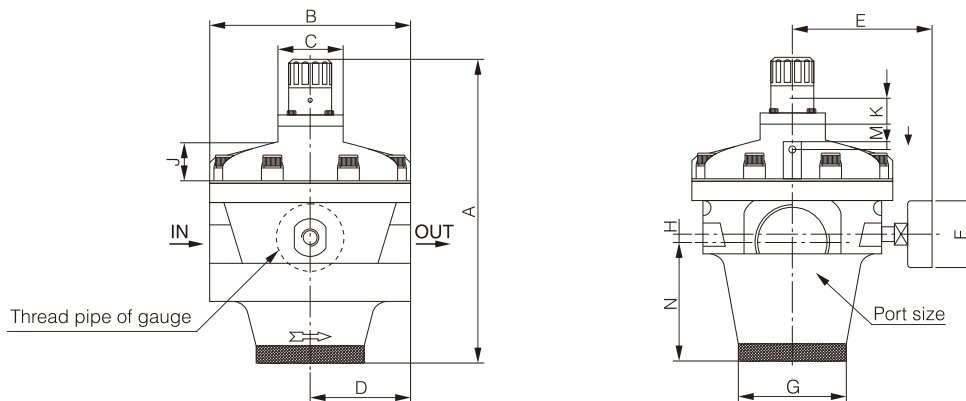
A	R	925	20
Series	Function	Body size	Port size
R	Regulator	825 1½"	15 1½"
		925 2"	20 2"
		1200 3"	30 3"

Specification

Model	AR825-15	AR925-20	AR1200-30
Port size	1½"	2"	3"
Rating flow (L/min)	12000	20000	28000
Max. working pressure	1.0MPa		
Ensured pressure resistance	1.5MPa		
Environment & fluid temperature	-5~60°C (Not frozen)		
Structure	Inter pilot and overflow vent hole		
Adjustable pressure range	0.5~0.85MPa		
Gauge	G46-10-02		

Note: PT thread, G thread and NPT thread are available.

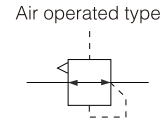
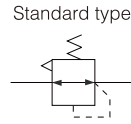
Dimensions



Model	Port size	Thread pipe of gauge	Standard specification											
			A	B	C	D	E	F	G	H	J	K	M	N
AR825-15	1½"	1/4"	210	126	52	63	95	53	70	6.5	30	20	6.4	60.5
AR925-20	2"	1/4"	241	160	52	80	100	53	86	5.5	30	20	6.4	94.5
AR1200-30	3"	1/4"	274	210	52	105	140	60	100	26	34	30	6.4	125



Symbol



Product feature

1. small size, light weight.
2. accurate pressure setting.
3. The pitch of the adjusting screw is changed from traditional 0.75mm to 0.5mm.
4. Easy to install. It can be installed independently by bracket or directly installed with the modular filter assembly AF and AFM.
5. Standard type also has panel installation.
6. The pilot exhaust port is separated from the main exhaust port.
7. Can be used in clean rooms (special injection products).

Ordering code

IR	2	0	0	0	02																												
Model	Body size	Type of setting	Set pressure range		Port size																												
Precision regulator	1 IR1000 series 2 IR2000 series 3 IR3000 series	0 Basic type(Knob) 1 Air operated type (only IR ₃ 000)	IR1000/2000 series 0 0.05~0.2MPa 1 0.01~0.4MPa 2 0.01~0.8MPa		IR3000 series 0 0.01~0.2MPa 1 0.01~0.4MPa 2 0.01~0.8MPa																												
Note: Air operated type only IR2120 Note: Air operated type only IR3120																																	
<table border="1"> <thead> <tr> <th rowspan="2">Symbol</th> <th rowspan="2">Size</th> <th colspan="3">Application</th> </tr> <tr> <th>IR1000</th> <th>IR2000</th> <th>IR3000</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>1/8"</td> <td>●</td> <td></td> <td></td> </tr> <tr> <td>02</td> <td>1/4"</td> <td></td> <td>●</td> <td>●</td> </tr> <tr> <td>03</td> <td>3/8"</td> <td></td> <td></td> <td>●</td> </tr> <tr> <td>04</td> <td>1/2"</td> <td></td> <td></td> <td>●</td> </tr> </tbody> </table>						Symbol	Size	Application			IR1000	IR2000	IR3000	01	1/8"	●			02	1/4"		●	●	03	3/8"			●	04	1/2"			●
Symbol	Size	Application																															
		IR1000	IR2000	IR3000																													
01	1/8"	●																															
02	1/4"		●	●																													
03	3/8"			●																													
04	1/2"			●																													

Common specifications

sensitivity	Within 0.2% full degree	
Repeatability accuracy	Within ±0.5% full degree	
Gas consumption	IR10□0	Max.4.4ℓ/min(ANR)Under 1.0MPa pressure
	IR20□0	Max. 4.4ℓ/min(ANR) Under 1.0MPa pressure
	IR30□0	Max.11.5ℓ/min(ANR) Under 1.0MPa pressure
	IR3120	Max.11.5ℓ/min(ANR) Under 1.0MPa pressure
Environment and fluid temperature	-5℃~60℃(Not frozen)	
Maximum operating pressure	1.0MPa	
Pressure gauge connecting caliber	1/8"	

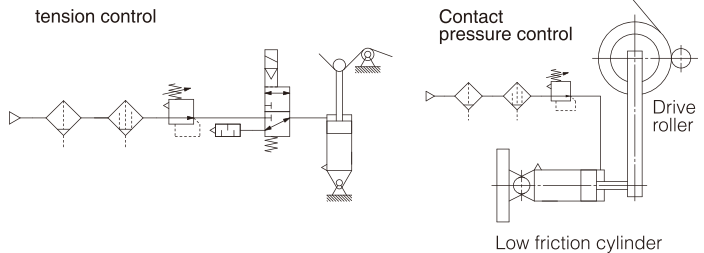
Note: gas filter (AF) and oil mist separator (AM and AFM) shall be used in the supply side.

Model/Specifications

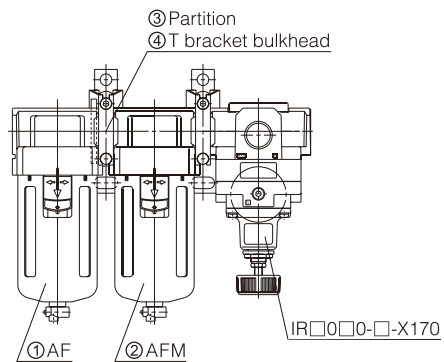
Model (Note)	Specifications			Accessories(optional)				
	Minimum use pressure (MPa)	Set the pressure range(MPa)	Pipe size	Pressure gauge type	Bracket type			
Standard type	Set pressure + 0.05	0.005~0.2	1/8"	G33-2-01	P36201023			
		0.01~0.4		G33-4-01				
		0.01~0.8		G33-10-01				
		0.005~0.2		G43-2-01				
	Set pressure + 0.1	0.01~0.4	1/4"	G43-4-01	P36202028			
		0.01~0.8		G43-10-01				
		0.01~0.2		G43-2-01				
Air control type	Set pressure + 0.05	0.01~0.8	1/4"	G43-10-01	P36202028			
		0.01~0.4						
	Set pressure + 0.1	0.01~0.8				1/4"	G43-4-01	P362030-20
		0.01~0.8						
		1/2"						

Note: □-Representative pipe size
02=1/4", 03=3/8", 04=1/2"

Application example



Installed on modular filter assembly



Suitable for accessory names	Suitable model		
	IR10□0-01-X170	IR20□0-02-X170	IR30□0-□□-X170
①Air filter	AF20-A	AF30-A	AF40-A
②Oil mist separator	AFM20-A	AFM30-A	AFM40-A
③bulkhead	Y200-A	Y300-A	Y400-A
④T bracket bulkhead	Y200T-A	Y300T-A	Y400T-A

Note: modular combination of filters with non-standard models (IR□□□□-□□-X170)

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

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AF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

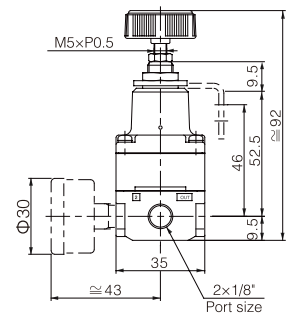
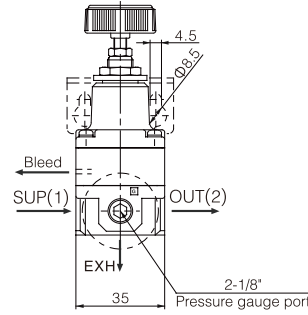
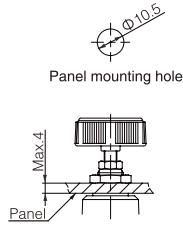
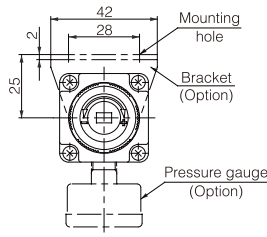
F804

PG

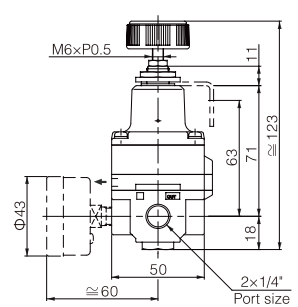
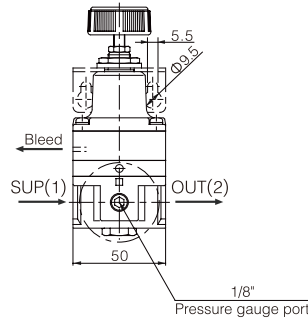
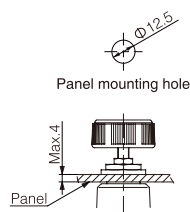
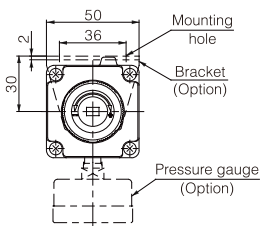
- FRL
- AC/BC
- AFC/BFC
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- SR
- SDR
- AC
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Dimensions

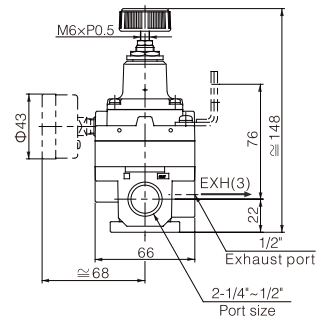
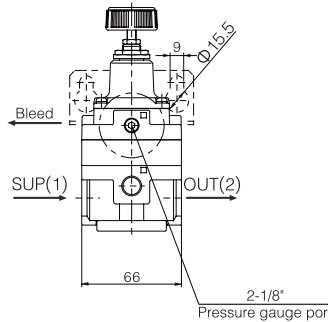
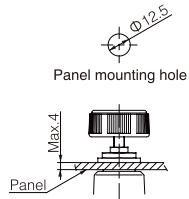
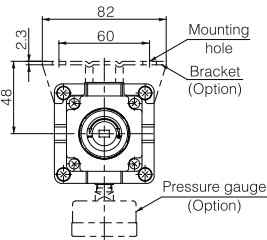
IR10□0-01



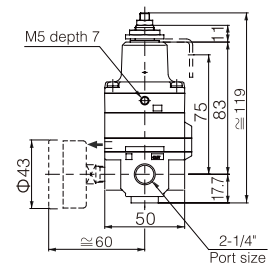
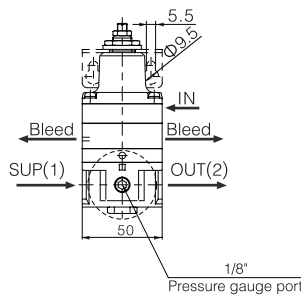
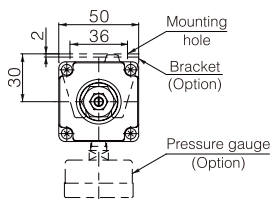
IR20□0-02



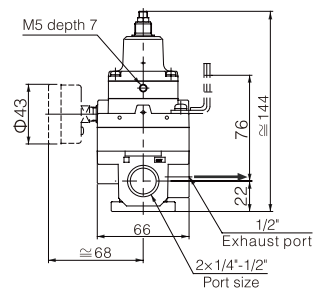
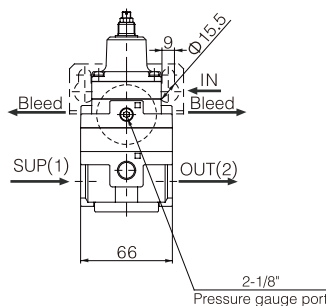
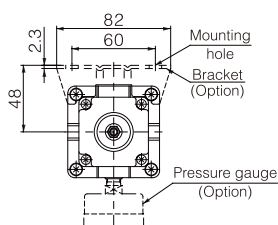
IR30□0-0□



IR2120-02□ (Air control type)

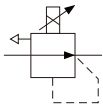


IR3120-0□□ (Air control type)



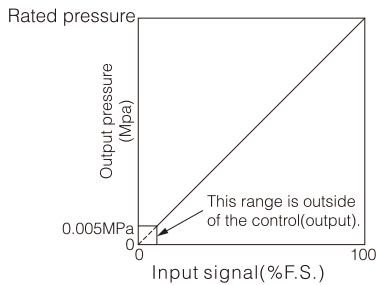


Symbol



Product feature

1. Electrical proportional way to achieve stepless control of outlet pressure;
2. Compact and lightweight;
3. Low power consumption: less than 4W (communication form).



Input/output characteristics chart

Note: please don't install mist sprayer on the gas supply side

Specifications

Model	ITV101□	ITV103□	ITV105□
	ITV201□	ITV203□	ITV205□
	ITV301□	ITV303□	ITV305□
Minimum supply pressure	Set pressure+0.1MPa		
Maximum supply pressure	0.2MPa	1.0MPa	
Set pressure range	0.005~0.1MPa	0.005~0.5MPa	0.005~0.9MPa
Power supply	Voltage	DC24V±10%, DC12~15V	
	Current consumption	Power supply voltage DC24V: 0.12A or less Power supply voltage DC12~15V: 0.18A or less	
Input signal	Current type ^{Note 1)}	4~20mA, 0~20mA	
	Voltage type	DC: 0~5V, DC: 0~10V	
	Preset input	16 points (No common polarity)	
Input impedance	Digital input	250 Ω or less	
	Current type	Approx. 6.5 kΩ	
	Voltage type	Approx 4.7kΩ (24VDC), Approx 2.0kΩ (12VDC)	
Output signal ^{Note 2)} (monitor output)	Analog output	DC1~5V (Load impedance: 1kΩ Above) 4-20mADC (Exchange type)(Load impedance: 250Ω Following)	
	Switch output	NPN open collector output: Max. 30V, 80mA PNP open collector output: Max. 80mA	
Linearity	± 1%F.S. or less		
Hysteresis	0.5%F.S. or less		
Repeatability	± 0.5%F.S. or less		
Sensitivity	0.2%F.S. or less		
Temperature characteristics	± 0.12%F.S./°C or less		
Output pressure display ^{Note 4)}	Accuracy	± 2%F.S. ± 1 digit or less	
	Minimum unit	MPa: 0.001, kgf/cm ² : 0.01, bar: 0.01, psi: 0.1 ^{Note 3)} , kPa: 1	
Ambient and fluid temperature	0 to 50°C (No condensation)		
Protective structure	Quite IP65		
Weight	ITV10□□	250g	
	ITV20□□	350g	
	ITV30□□	645g	

- Note: 1. 2-wire type 4 to 20 mA DC is not available. Power supply voltage (24 VDC or 12 to 15 VDC) is required.
 2. The analog output and the switching output can be optionally one, the output of the switch, the NPN output and the PNP output, optionally one.
 3. The minimum unit for 0.9 MPa (130 psi) types is 1 psi.
 4. The recording characteristics are limited to static, and the pressure changes when the output side is consuming compressed air.
 5. CE authentication: suffix-Q, for example: ITV1010-012S-Q.

Ordering code

ITV 3 0 1 0 0 1 2 S

Model	Power supply voltage	Monitor output	Port size
1 1000 type	0 DC24V	*0 No (preset input)	1 1/8" (1000 type)
2 2000 type	1 DC12~15V	1 Analog output DC 1~5V	2 1/4" (1000, 2000, 3000 type)
3 3000 type		*2 Switch output/NPN output	3 3/8" (2000, 3000 type)
		*3 Switch output/PNP output	4 1/2" (3000 type)
		*4 Analog output 4~20mA	
		* standard type	

Pressure range	Input signal	Cable connector type
1 0.1MPa {1.0kgf/cm ² }	0 Current type ~20mA	S Straight type 3m
3 0.5MPa {5.1kgf/cm ² }	1 Current type ~20mA	*L Right angle type 3m
5 0.9MPa {9.2kgf/cm ² }	2 Current type DC 0~5V	* standard type
	3 Current type DC 0~10V	
	*4 Preset input	

* The standard type monitor output only corresponds to the "0" option.

Accessories (optional) / parts type

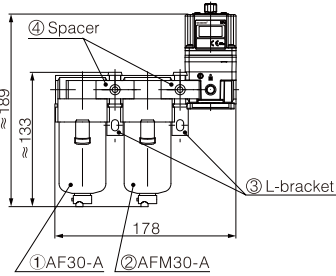
describe	Product type		
	ITV10□□	ITV20□□	ITV30□□
Plate type bracket assembly (with mounting screws)Type	KT-ITV-F1	KT-ITV-F2	
L bracket assembly (with mounting screws)	KT-ITV-L1	KT-ITV-L2	
Cable joint	P398020-500-3		
	P398020-501-3		

FRL

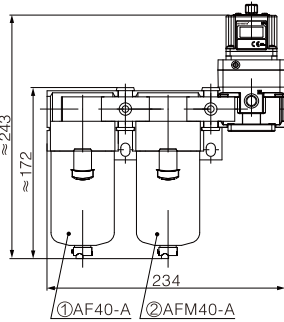
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR
- AC
- AW
- AF
- AR
- AL
- F3
- F2
- F1
- F
- R
- L
- USFRL
- USFR/L
- USFR
- USF
- USR
- USL
- QSL
- QTY
- QIU
- QTYH
- QSLH
- QFRH
- AFF
- AF(Big)
- AL(Big)
- AR(Big)
- AD402
- AH402
- AD-5
- IR
- ITV
- ACR
- F804
- PG

Installed on modular filter assembly

ITV20□□



ITV30□□



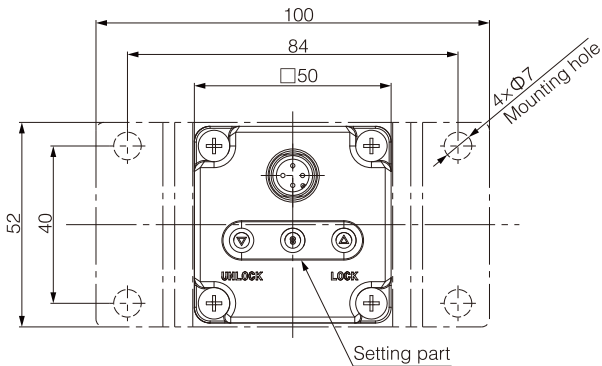
* ITV10□□ model is not suitable for the fortieth.

Applicable products and accessories	Applicable model	
	ITV20□□	ITV30□□
① Air filter	AF30-A	AF40-A
② Mist separator	AFM30-A	AFM40-A
③ L-bracket	B310L	B410L
④ Spacer	Y30	Y40
⑤ Spacer with L-bracket (③+④)	Y30L	Y40L
⑥ Spacer with T-bracket	-	Y40T

Dimensions

Flat bracket

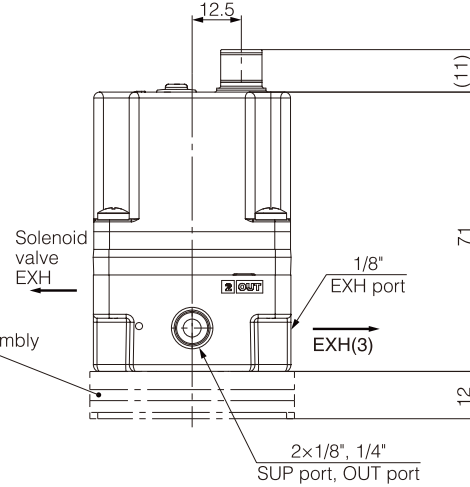
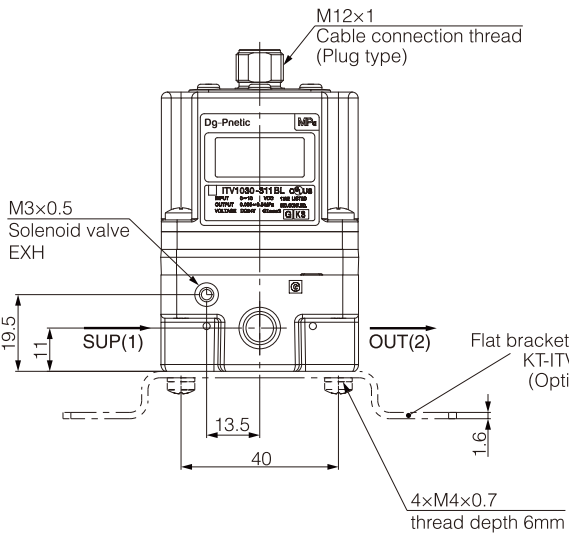
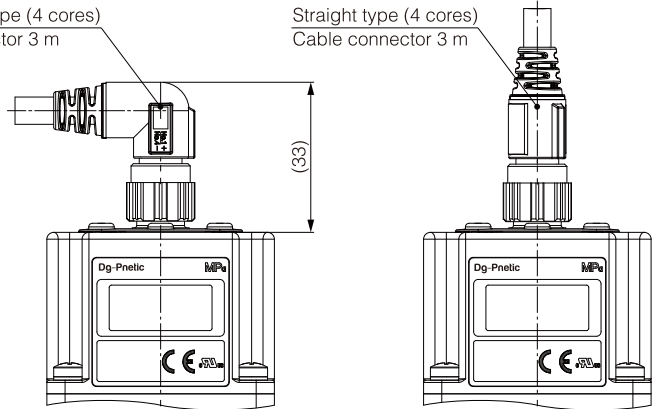
ITV10□□



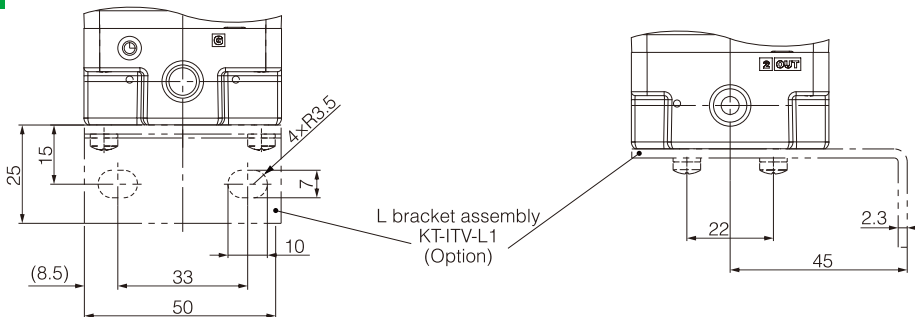
Note: Do not attempt to rotate, as the cable connector does not turn.

Right angle type (4 cores)
Cable connector 3 m

Straight type (4 cores)
Cable connector 3 m

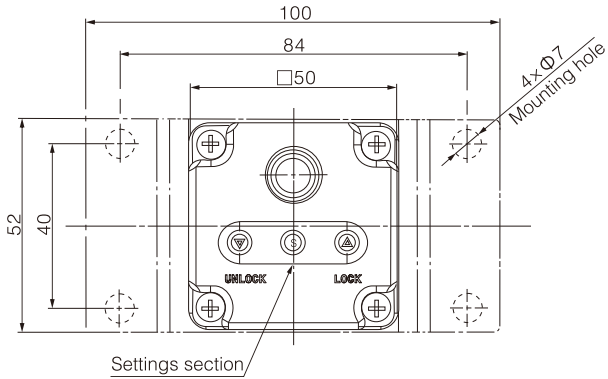


L-bracket



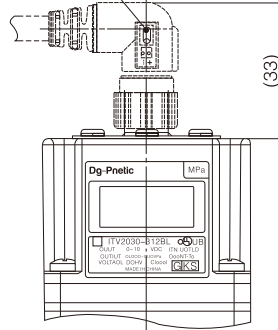
Flat bracket

ITV20□□

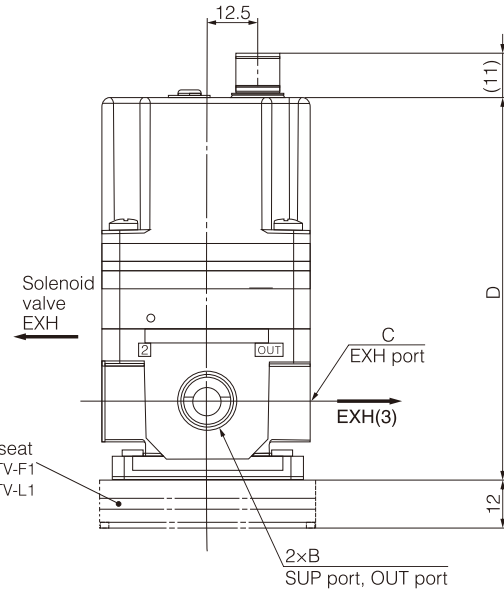
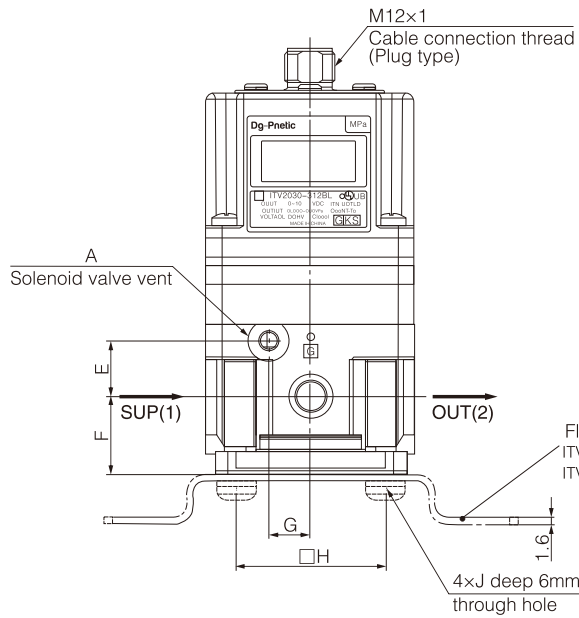
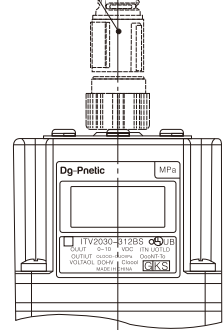


Note: Do not attempt to rotate, as the cable connector does not turn.

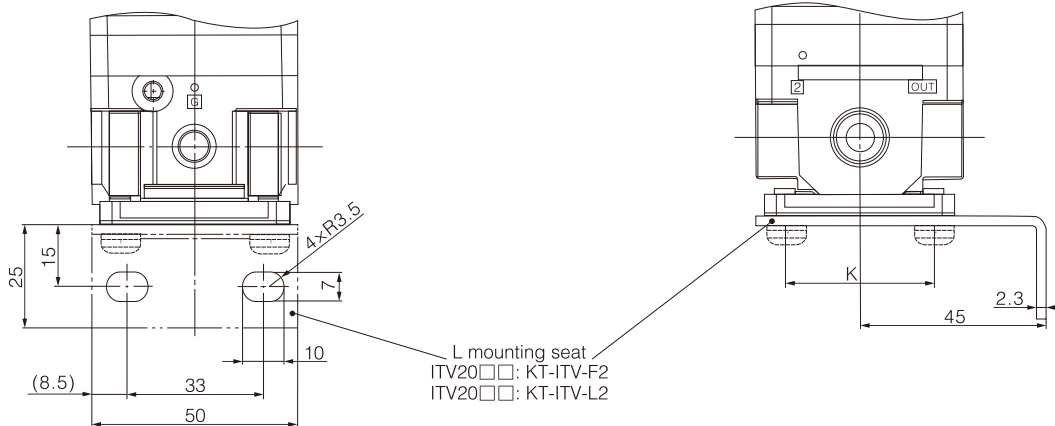
Right angle type (4 cores)
Cable connector 3 m



Straight type (4 cores)
Cable connector 3 m



L bracket



	A	B	C	D	E	F	G	H	J	K
ITV10□□-□□	M3×0.5	1/8", 1/4"	1/8"	71	8.5	11	13.5	40	M4×0.7	22
ITV20□□-□□	M5×0.8	1/4", 3/8"	1/4"	93	13.5	19	10	36	M5×0.8	36

Note: The outline of the ITV2000 series is shown, The appearance of the ITV1000 series is in kind.

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

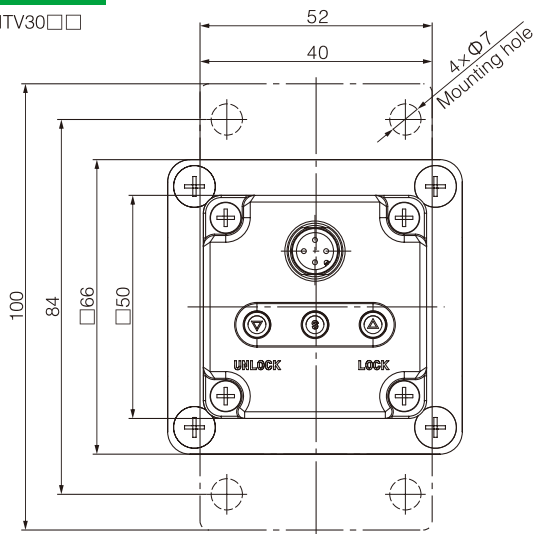
ACR

F804

PG

FRL
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
F2
F1
F
R
R
L
USFRL
USFR/L
USFR
USF
USR
USL
QSL
QTY
QIU
QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG

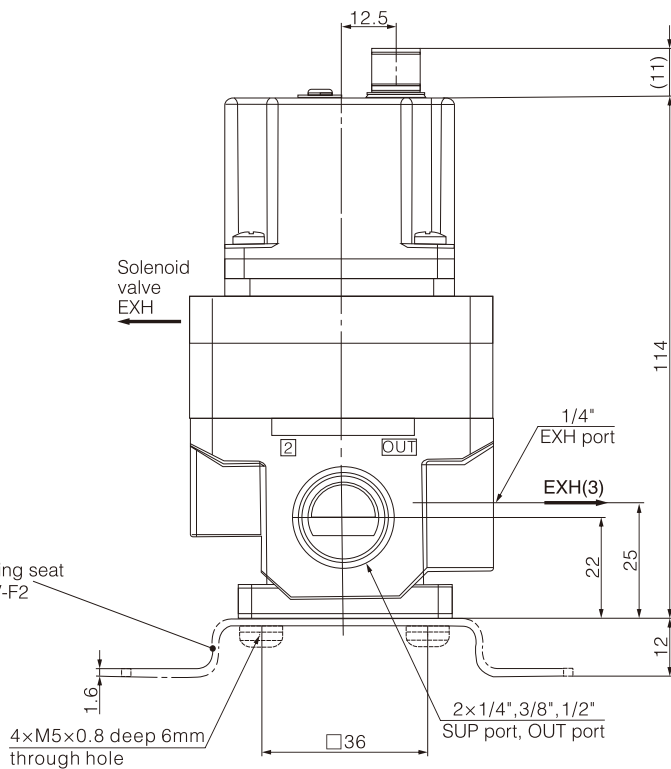
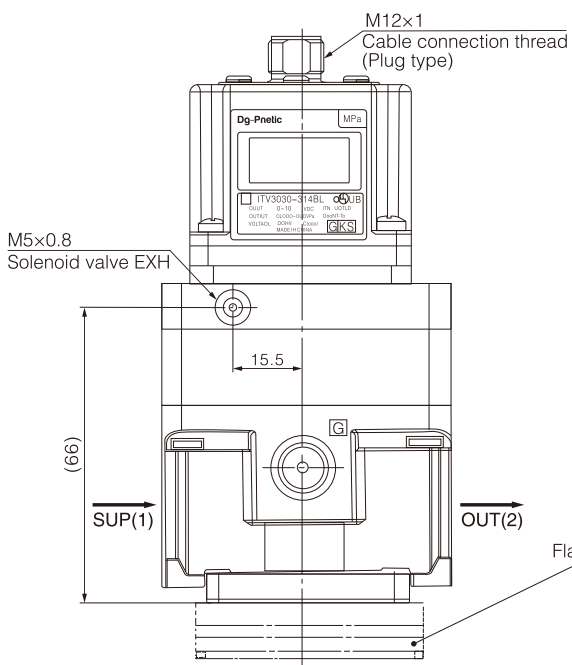
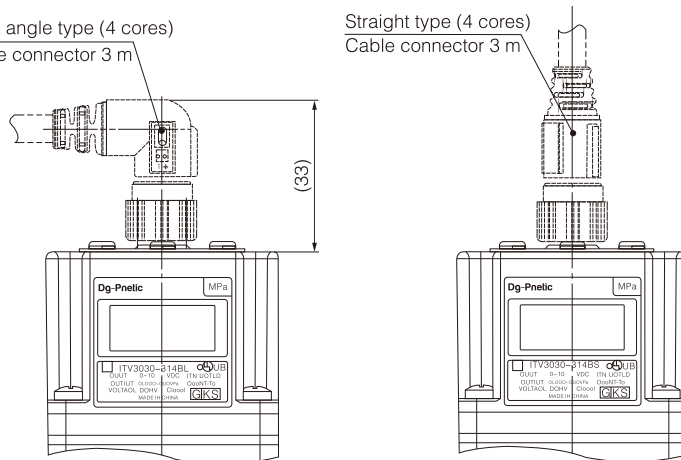
Flat bracket



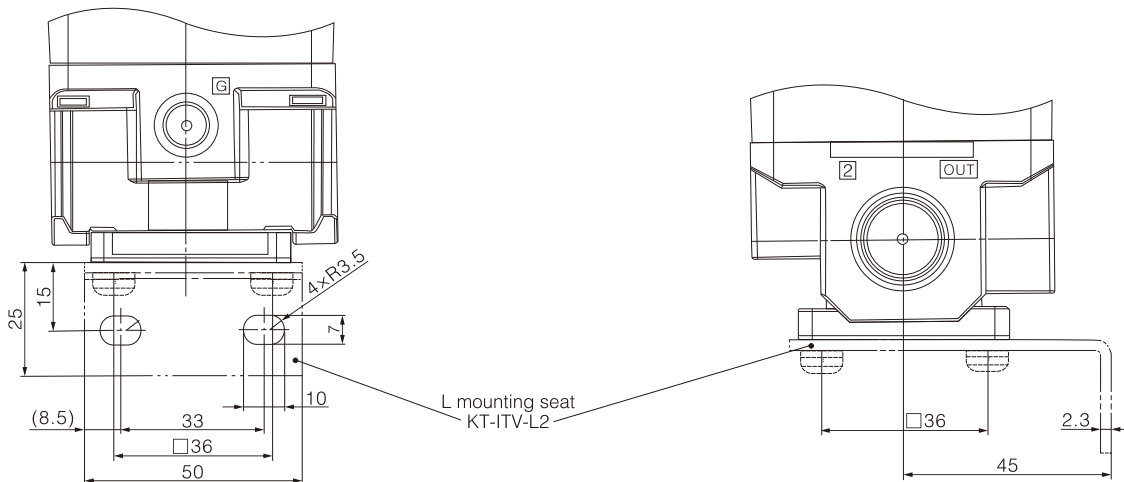
Note: Do not attempt to rotate, as the cable connector does not turn.

Right angle type (4 cores)
Cable connector 3 m

Straight type (4 cores)
Cable connector 3 m



L bracket





Product feature

1. A total of LED jump word display.
2. Selectable switch output or analog output two.
3. Connection mode can choose two types of vertical outlet or right angle outlet type.
4. The mounting dimensions are the same as those of the IT series.
5. Protection structure up to IP65.

Note: Please do not add gas mist to the gas supply side.

Specifications

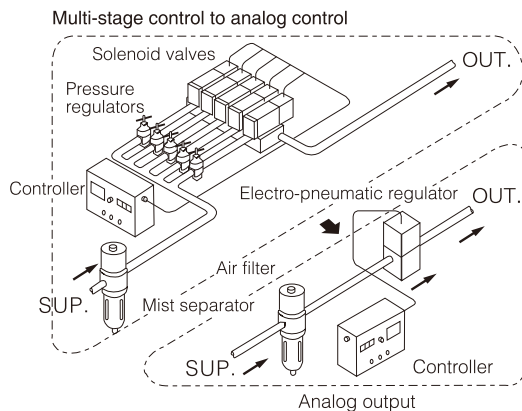
Model		ITV2090	ITV2091
Minimum supply vacuum pressure		Set pressure -13.3kPa	
Maximum supply vacuum pressure		-101kPa	
Set pressure range		-1.3~-80kPa	
Power supply	Voltage	DC24V×10%	DC12~15V
	Current consumption	Power supply voltage 24 VDC type: 0.12 A or less Power supply voltage 12~15 VDC type: 0.18 A or less	
Input signal	Current type ^{Note 1)}	4~20 mA DC, 0~20 mA DC (Sink type)	
	Voltage type	0~5 VDC, 0~10 VDC	
	Preset input	4 points (Negative common)	
Input impedance	Current type	250Ω or less	
	Voltage type	Approx. 6.5kΩ	
	Preset input	Power 24VDC is approx. 4.7kΩ; Power 12VDC is approx. 2kΩ	
Output signal ^{Note 2)} (Monitor output)	Analog output	VDC 1~5V (Output impedance: Approx. 1kΩ) 4~20mA (Sink type) (Output impedance: 250Ω or less) Output accuracy ±6% F.S. or less	
	Switch output	NPN open collector output: Max. 30V, 80mA PNP open collector output: Max. 80mA	
Linearity		±1% F.S. or less	
Hysteresis		0.5% F.S. or less	
Repeatability		±0.5% F.S. or less	
Sensitivity		0.2% F.S. or less	
Temperature characteristics		±0.12% F.S./°C or less	
Output pressure display	Accuracy	±2% F.S. ± 1 digit or less	
	Units	kPa; Minimum display 1	
Ambient and fluid temperature		0~50°C (No condensation)	
Enclosure		IP65	

Note: 1. 2 Wire 4~20mA is not available, the supply voltage is DC24V or DC12~15V.
2. Optional analog output or switch output. If select switch output, select NPN output or PNP output.

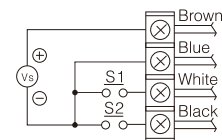
Ordering code

ITV 209	0	0	1	<input type="checkbox"/>	2	<input type="checkbox"/>	S	5
Pressure range	Power supply voltage	Electric signal monitoring output		Thread type	Bracket *		Pressure display unit	
9 -1.3~-80kPa	0 DC 24V 1 DC 12~15V	*0 No (preset only) 1 DC 1~5V analog output *2 Switch output (NPN) *3 Switch output (PNP) *4 DC 4~20mA analog output * standard type		Blank Rc N NPT T NPTF F G	Blank Without bracket B Flat bracket C L-bracket * Bracket is included.		5 kPa	
	Input signal			Port size	Cable connector type			
	0 DC 4~20mA (current type) 1 DC 0~20mA (current type) 2 DC 0~5V (voltage type) 3 DC 0~10V (voltage type) *4 4 preset inputs * standard type			2 1/4"	S Straight type 3m *L Right angle type 3m * standard type			

Application examples



Preset input control and wiring diagram



VS: Power Supply DC24V
DC12~15V

The selection of P1~P4 preset output pressure depends on the on-off combination of S1 and S2

S1	Shut	Shut	Shut	Open
S2	Shut	Shut	Open	Open
Preset pressure	P1	P2	P3	P4

Note: It is recommended that one of the preset pressures is set to 0 MPa and that the control will be safer.

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

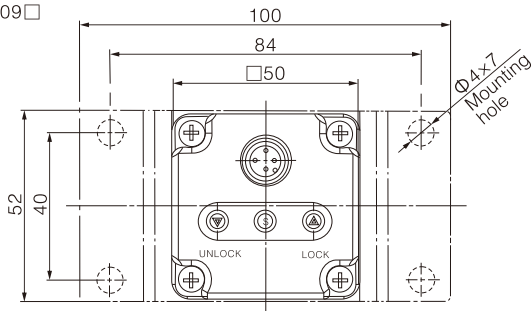
F804

PG

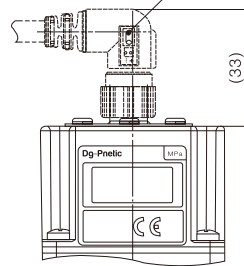
- FRL
- AC/BC
- AFC/BFC
- AFR/BFR
- AF/BF
- AR/BR
- AL/BL
- SR
- SDR
- AC
- AW
- AF
- AR
- AL
- F3
- F2
- F1
- F
- R
- L
- USFRL
- USFR/L
- USFR
- USF
- USR
- USL
- QSL
- QTY
- QIU
- QTYH
- QSLH
- QFRH
- AFF
- AF(Big)
- AL(Big)
- AR(Big)
- AD402
- AH402
- AD-5
- IR
- ITV**
- ACR
- F804
- PG

Dimensions

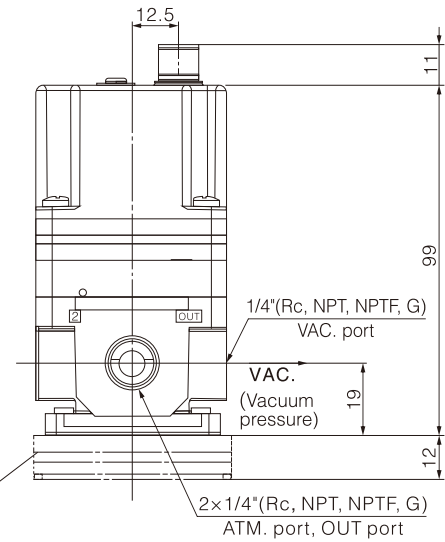
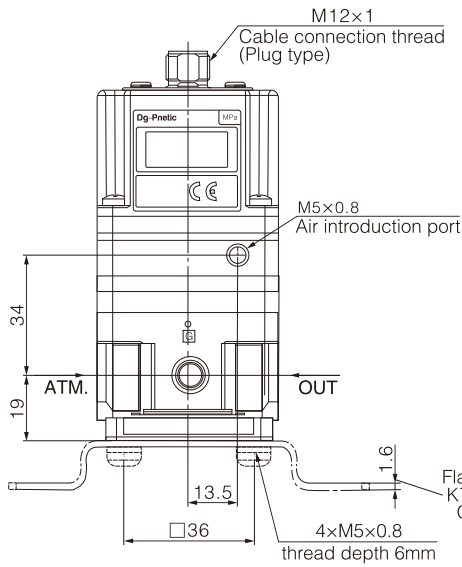
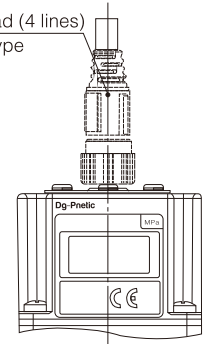
Flat bracket



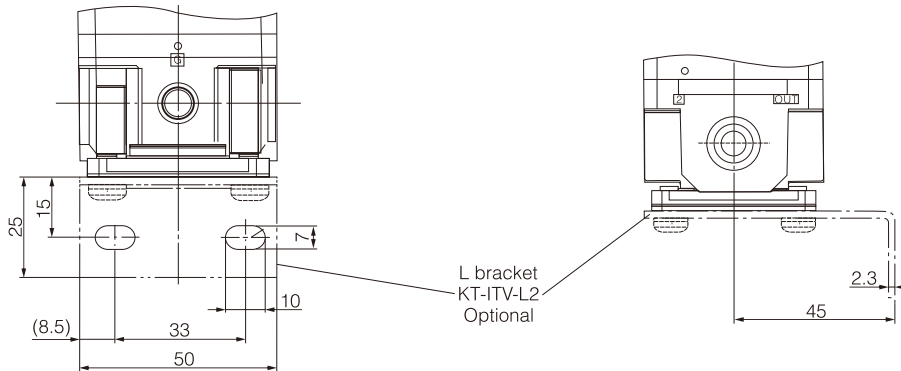
Connection head (4 lines)
Right angle outlet type



Connection head (4 lines)
Vertical outlet type

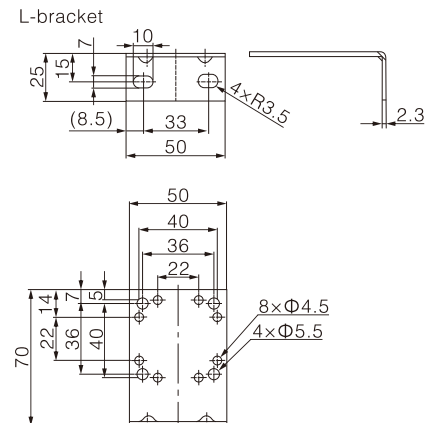
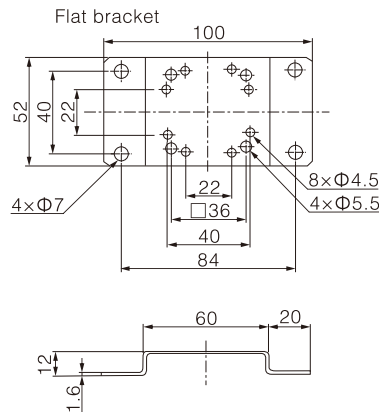


L-bracket



Accessories

Name	Model
Flat bracket	KT-ITV-F2
L bracket	KT-ITV-L2





Product feature

The ACR air spray gun regulator is specially developed to place underneath a spray gun. With this air regulator + manometer, you can control the air pressure on your spray gun. This allows you to control the atomization of the paint during spraying accurately.

ACR air spray gun regulator is made from aluminium body with oxidation treatment. The gauge is made of steel and safety glass components that are resistant to solvent vapours. The regulator which assembled the manometer weighs only 135 grams meaning the user can barely notice it on the gun.

- The air is regulated using the ridged knob
- 1/4" BSP or NPT male
 - 1/4" BSP or NPSM female thread
 - 135 grams
 - 0 to 10 bar (0 to 145 psi)

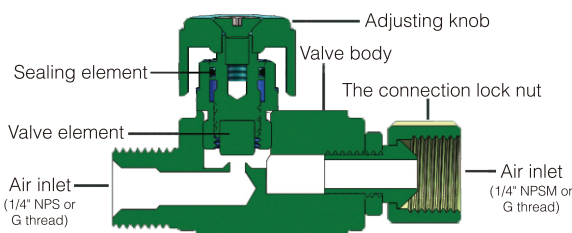
Ordering code

ACR		40	G	B	B
Air spray gun regulator		Gauge size	Fitting size	Dial range	Gauge lens
ACR		25mm 1"	G 1/4" G Thread	B Bar	G Normal glass: For the paint with organic solvent
ACR100		40mm 1.5"	N 1/4" NPT Thread	K kgf/cm ²	SG Safety glass: For the paint with organic solvent
				P Psi	P Polycarbonate: For the paint with no organic solvent
				M MPa	
				Kp KPa	
				BK Bar+kgf/cm ²	
				BM Bar+MPa	
				BP Bar+Psi	

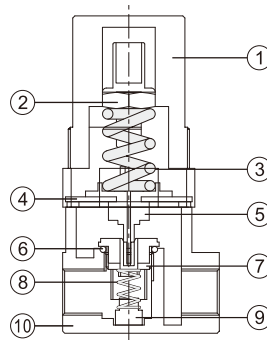
Note: ACR air regulator is a control valve which through adjusting the discharge area to regulate the flow rate.
ACR100 It's a pressure regulator. Not for limiting the air flow rate.

Inner structure and material of major parts

ACR



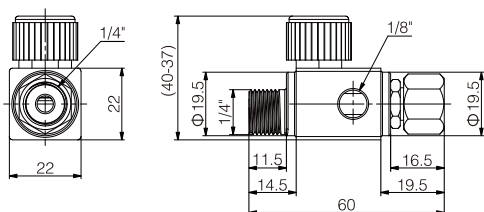
ACR100



No.	Item	Material
1	Adjusting Button	POM
2	Adjusting Nut	Steel-Zinc plated
3	Adjusting Spring	SWC
4	Diaphragm	NBR
5	Diaphragm Seat	POM
6	O-ring	NBR
7	Adjusting Seat	POM
8	Return Spring	SUS304
9	Spring Seat	POM
10	Body	Aluminum Alloy

Dimensions

ACR



ACR100

