

FOR WATER USE

KS Mark certified product



DAEHAN Water Meter



DAEHAN METER TECH CO.,LTD.

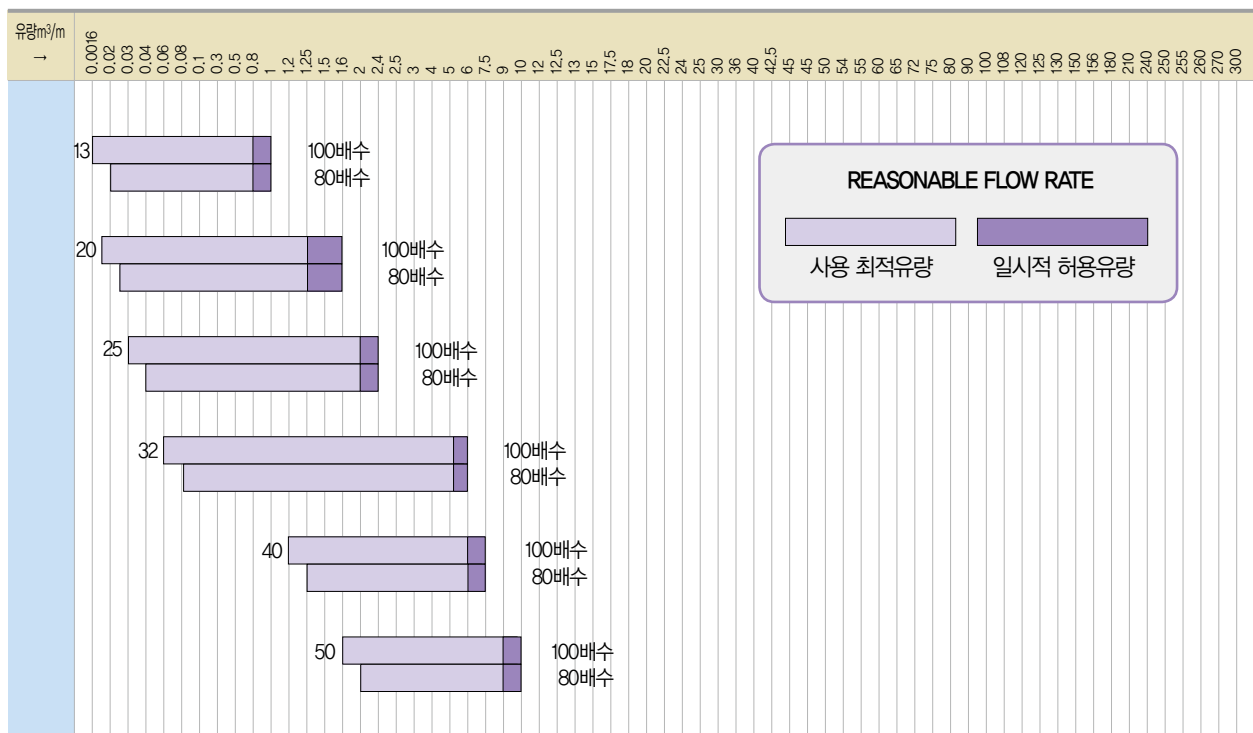
www.dhmeter.co.kr

Indication of magnification for type approved water meter

Indication of Magnification for Type Approved Water Meter

Size	Indicated Quantity of flow	X40 Magnification	X50 Magnification	X63 Magnification	X80 Magnification	X100 Magnification	X125 Magnification	Printing on Character Plate
15mm	Maximum(Q3)	1.6	1.6	1.6	1.6	1.6	1.6	Q3:1.6
	Variation(Q2/Q1:1.6)	0.064	0.0512	0.04	0.032	0.0256	0.02048	Q2/Q1:1.6
	Minimum(Q1)	0.04	0.032	0.025	0.02	0.016	0.0128	Q1:
20mm	Maximum(Q3)	2.5	2.5	2.5	2.5	2.5	2.5	Q3:1.6
	Variation(Q2/Q1:1.6)	0.0992	0.08	0.064	0.0496	0.04	0.032	Q2/Q1:1.6
	Minimum(Q1)	0.062	0.05	0.04	0.031	0.025	0.02	Q1:
25mm	Maximum(Q3)	4	4	4	4	4	4	Q3:1.6
	Variation(Q2/Q1:1.6)	0.16	0.128	0.1008	0.08	0.064	0.0512	Q2/Q1:1.6
	Minimum(Q1)	0.1	0.08	0.063	0.05	0.04	0.032	Q1:
32mm	Maximum(Q3)	6.3	6.3	6.3	6.3	6.3	6.3	Q3:1.6
	Variation(Q2/Q1:1.6)	0.24	0.192	0.16	0.1248	0.1008	0.08	Q2/Q1:1.6
	Minimum(Q1)	0.15	0.12	0.1	0.078	0.063	0.05	Q1:
40mm	Maximum(Q3)	0.64	0.512	0.40448	0.32	0.256	0.2048	Q3:1.6
	Variation(Q2/Q1:1.6)	0.4	0.32	0.2528	0.2	0.16	0.128	Q2/Q1:1.6
	Minimum(Q1)	0.25	0.2	0.158	0.125	0.1	0.08	Q1:
50mm	Maximum(Q3)	16	16	16	16	16	16	Q3:1.6
	Variation(Q2/Q1:1.6)	0.64	0.0512	0.4	0.32	0.256	0.2048	Q2/Q1:1.6
	Minimum(Q1)	0.4	0.032	0.25	0.2	0.16	0.128	Q1:

Nominal Flow Range



주) 본 유량표는 참고적인 것으로서 실 미터 선정시에는 표의 사용최적 유량과 중간 유량을 선정하는 것이 바람직합니다.

Manipulation Preventive cap for Tangential Wing-type Highly-Sensitive Multi – Wet Water Meter



KS MARK CERTIFIED PRODUCT (KS B 50049-1)

MW Type : 15, 20, 25, 32, 40, 50mm



Performance and Dimensions

Specification(mm)		Unit	15		20	25	32	40	50
Q ₃ / Q ₁ R			80	160	100	100	100	100	100
Starting flow		L/h	6	6	10	12	15	30	50
Minimum flows(Q ₁)	±5%	m³/h	0.031	0.0156	0.025	0.04	0.063	0.1	0.16
Q ₂ / Q ₁ R	±2%	m³/h	0.05	0.025	0.1	0.16	0.252	0.4	0.64
Maximum flows(Q ₃)	±2%	m³/h	2.5	2.5	2.5	4.0	6.3	10	16
Range of appropriate flows		m³/h	0.016~1.2	0.016~1.2	0.025~1.2	0.04~1.5	0.063~3.0	0.1~5.0	0.16~8.0
Maximum indication		m³	9,999	9,999	99,999				999,999
Meter's length	L(mm)		165	165	190	225	230	245	305
Meter Height	H(mm)		100	100	109	114	116	130	155
Meter Width	W(mm)		95	95	100	100	100	117	138
Meter Connection screws	D(inch)		PT 3/4	PT 3/4	PF1	PT1 1/4	PF1 1/2	PF2	PF2 1/2
Mounting connection screws	(inch)		PT 1/2	PT 1/2	PT 3/4	PT1	PT1 1/4	PT1 1/2	PT2

- Installation conditions : Meter face horizontal
- Less than maximum operating temperature : 30°C

- Maximum operating pressure : 10bar

Backflow preventive, differential pressure-type manipulation preventive cap for freeze preventive water meter



KS MARK CERTIFIED PRODUCT (KS B 50049-1)

MW Type : 15, 20, 25, 32, 40, 50mm



PPS 수도미터 동파방지 테스트 과정



항온습습기 PPS 수도미터 동파방지 전자동 시험기



Differential pressure, freeze preventive, transparent magnifying lens

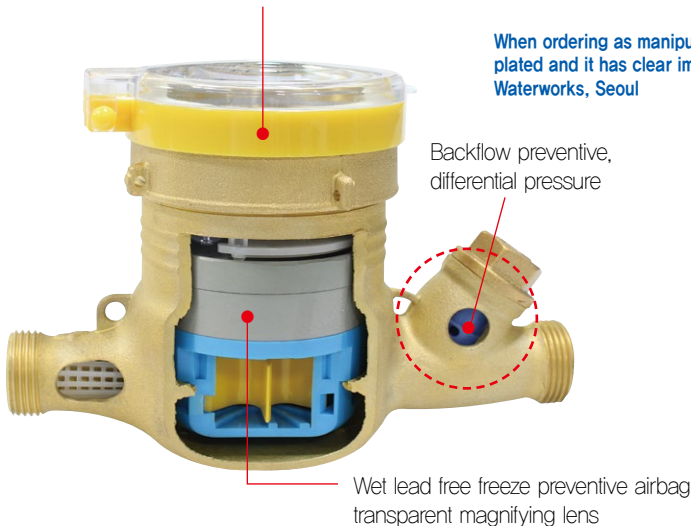


Differential pressure, freeze preventive (Airbag) manipulation preventive cap



Backflow preventive, differential pressure-type manipulation preventive cap for freeze preventive water meter

Manipulation preventive cap for freeze preventive wet water meter



Backflow preventive, differential pressure

Wet lead free freeze preventive airbag transparent magnifying lens

When ordering as manipulation preventive cap, (City, Province) article number carving is plated and it has clear image for 10 years, which was approved and adopted by Office of Waterworks, Seoul



Special structure which absorbs cubical expansion when frozen

Polycarbonate glass, being reinforced by 150times

Characteristic

- Case with airbag is built in main body of water meter is filled with air pressure of 0.7MPa in-between impeller and gear set, airbag absorbs cubical expansion when frozen, which prevents burst by freezing in advance.
- By decreasing space between glass plate and indicating unit, remaining water does not collect and it minimizes volume of water meter.
- Passed performance test (16 times repeated test of hot water thawing after cooling of -20°C for 48hours) for freeze preventive water meter, carried out by Waterworks Research Institution, Office of Waterworks, Seoul
- Possible to manufacture in various types like common type, backflow preventive type and manipulation preventive type, according to order from user

Backflow preventive, manipulation preventive cap (Check type) for freeze preventive water meter



KS MARK CERTIFIED PRODUCT (KS B 50049-1)

MW Type : 15, 20, 25, 32, 40, 50mm



PPS 수도미터 동파방지 테스트 과정



항온항습기 PPS 수도미터 동파방지 전자등 시험기



Check type stainless freeze preventive (Silicon), manipulation preventive cap



Check type freeze preventive (Silicon), manipulation preventive cap



Check type freeze preventive (Silicon), transparent magnifying lens

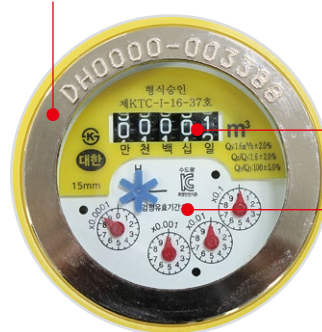
Manipulation preventive cap for freeze preventive wet water meter



Special structure which absorbs cubical expansion when frozen

Backflow preventive, differential pressure

When ordering as manipulation preventive cap, (City, Province) article number carving is plated and it has clear image for 10 years, which was approved and adopted by Office of Waterworks, Seoul



Special structure which absorbs cubical expansion when frozen

Polycarbonate glass, being reinforced by 150times

Characteristic

- Case with airbag is built in main body of water meter is filled with air pressure of 0.7MPa in-between impeller and gear set, airbag absorbs cubical expansion when frozen, which prevents burst by freezing in advance.
- By decreasing space between glass plate and indicating unit, remaining water does not collect and it minimizes volume of water meter.
- Passed performance test (16 times repeated test of hot water thawing after cooling of -20°C for 48hours) for freeze preventive water meter, carried out by Waterworks Research Institution, Office of Waterworks, Seoul
- Possible to manufacture in various types like common type, backflow preventive type and manipulation preventive type, according to order from user

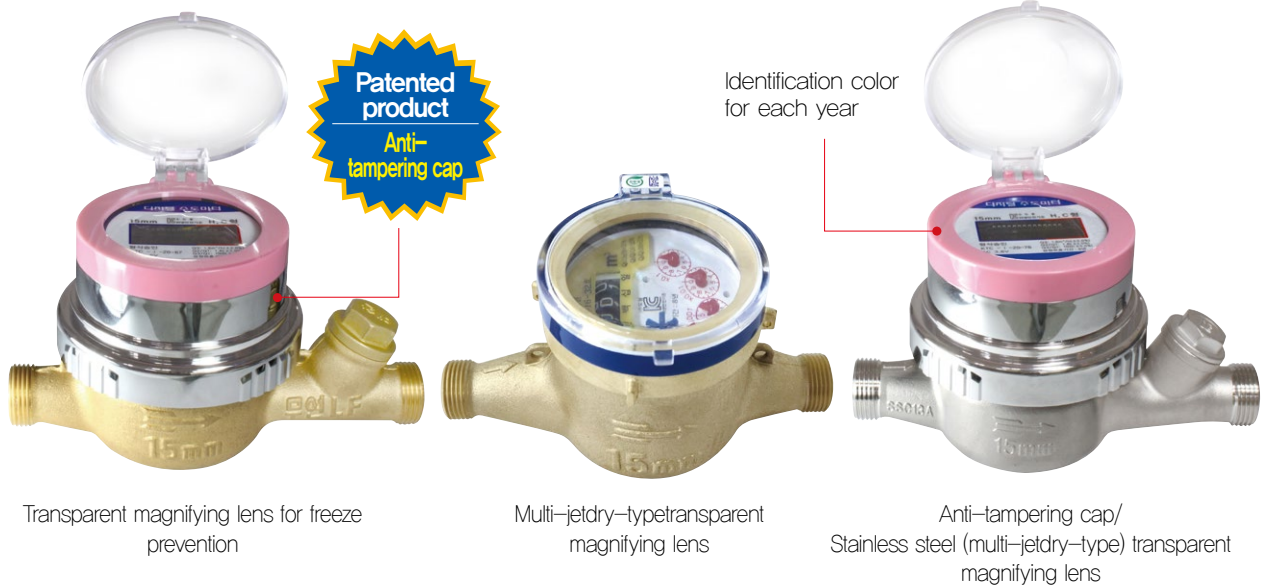
Highsensitivity digital (multi-jetdry type) water meter for backflow prevention



KS MARK CERTIFIED PRODUCT(KS B 50049-1)
MD Type : 15, 20, 25, 32, 40, 50mm



* 소비자 정보 *
환경표시 인증 사유: 유해물질 감소



Product Features

- Since the indicator does not submerge in water, the character board is always clear, there is no defect caused by any foreign substance, and reading the meter is very easy.
- Since water does not enter the gear part, it is strong against freezing during the winter.
- Even for a strong magnetic force, there is a shield, and hence, operation running is impossible.
- Given the backflow blocking device, it can block backflows even for minute flows and instantaneous backflows.
- Since only Impeller is in the water, it is strongly resistant to freezing during the winter, and the useful life of the meter is very long.

Performance and Dimensions

Specification(mm)		Unit	15	20	25	32	40	50
Q ₃ /Q ₁ R			100	100	100	100	100	100
Starting flow		L/h	6	10	12	15	30	50
Minimum flows(Q ₁)	±5%	m³/h	0.016	0.025	0.04	0.063	0.1	0.16
Q ₂ /Q ₁ R	±2%	m³/h	0.064	0.1	0.16	0.252	0.4	0.64
Maximum flows(Q ₃)	±2%	m³/h	2.5	2.5	4.0	6.3	10	16
Range of appropriate flows		m³/h	0.016~1.2	0.016~1.2	0.04~1.5	0.063~3.0	0.1~5.0	0.16~8.0
Maximum indication		m³	9,999	99,999				999,999
Meter's length	L(mm)		165	190	225	230	245	305
Meter Height	H(mm)		100	109	114	116	130	155
Meter Width	W(mm)		95	100	100	100	117	138
Meter Connection screws	D(inch)		PT 3/4	PF 1	PT 1 1/4	PF 1 1/2	PF 2	PF 2 1/2
Mounting connection screws	(inch)		PT 1/2	PT 3/4	PT 1	PT 1 1/4	PT 1 1/2	PT 2

- Installation conditions : Meter face horizontal
- Less than maximum operating temperature : 30℃

- Maximum operating pressure : 10bar

Remote hot water meter for heating/ Hot water meter (long, short)



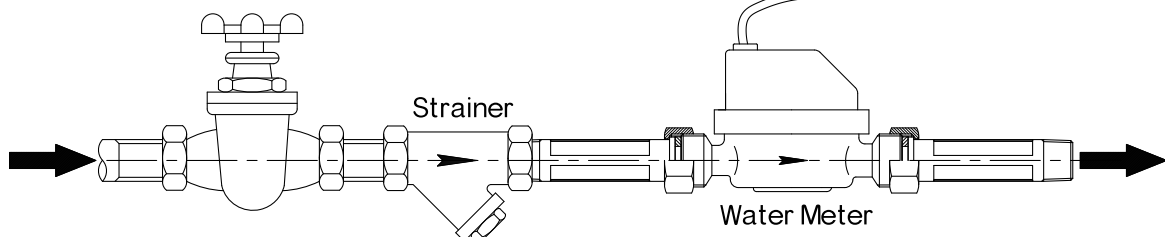
KS MARK CERTIFIED PRODUCT (KS B 50072)

SD Type : 15, 20, 25mm

Remote hot water meter for heating is used in heating system where hot water circulation is used in apartment, officetel or shopping district.



It is easy to install even in narrow space and it can prevent accident, like freeze.



Eco-friendly high sensitivity water meter



PPS water meter for freeze prevention



KS MARK CERTIFIED PRODUCT
Type : 15mm



* 소비자 정보 *
환경표시 인증 사유: 유해물질 감소



PPS digital water meter



PPS single-jet dry-type water meter

Features of PPS product

- Products qualified for the water meter performance test for freezing prevention (repeated 6 times for thawing in hot water after cooling to -20°C for 48 hours)
- A case equipped with an air bag filled with 0.7 kPa of air pressure is installed between the inner impeller of the water meter body and the gear set, and the air bag absorbs the pressure of volume expansion during freezing to prevent freezing in advance.
- The volume inside the meter has been minimized by reducing the space between the glass plate and the indicator to prevent the residual tap water from gathering.
- As per the user's order, it is possible to manufacture with a variety including PPS water meter, PPS digital water meter, PPS single-jet dry-type water meter, etc.

Digital electronic (multi-jet dry-type) water meter Backflow prevention



KS MARK CERTIFIED PRODUCT (KS B 50049-1)
MD Type : 15, 20, 25, 32, 40, 50mm



Displayed Device



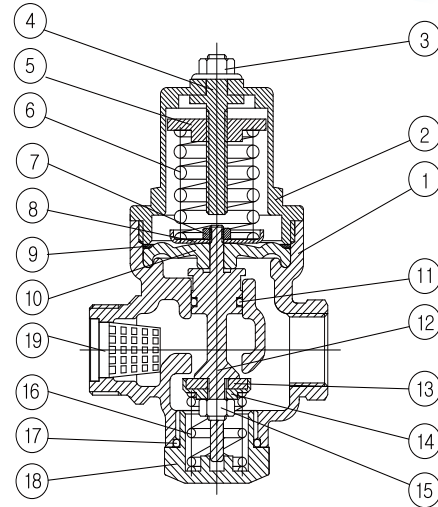
Product Features

- The indication value is displayed digitally, and hence, reading the meter is very easy.
- Since it operates without a gear set, the rate of defects caused by foreign substances has been minimized, and the precision at low flows has been improved.
- As the rotational force of the impeller has been designed with a magnetic field sensor method rather than a magnetic transmission method, the slip phenomenon at high flows arising in the existing remote water meter does not occur.
- The upper and lower cases of the electronic unit has been welded with ultrasonic, which prevents moisture from filling the indicator window given its double fully waterproof structure.
- Besides the metered value, an intelligent self-diagnostic functions are displayed, including whether it has not been used for long, whether it is forward, whether it is flowing in reverse direction, and whether battery is remaining.
- Since it is of the UARP-DATA communication method, it can be used for the outdoor meter reading, PDA meter reading, and the wireless remote meter reading.
- Depending on the installation requirements, the flow part can select single-jet or multi-jet, and the total length of the meter can be long or short by the order.
- Both sides of the backflow prevention disk have been coated with a special rubber to completely prevent noise during the water flow.

Pressure reducing valve direct-acting type (noise preventive function) for each household water supply

PATENT AND DESIGN REGISTERED

DHG-302G



Characteristic (Patented product for noise prevention)

- Pressure reducing valve of each household maintains pressure of supplying water constantly to protect device or pipe, and prevents trouble which occurs because of unbalance of pressure of water that flows in each household.
- Because O-ring unit of disk composed inside valve is operated in piston method on diameter area of main body of valve, valve is pushed gradually in spite of momentary strong pressure and it operates normally without noise and breakage even under the condition of 15~25kgf/cm² thanks to supplementary elasticity effect made by pressure-adjusting spring and compressing spring.
- Water can be supplied smoothly under comparatively low set pressure (3~5 kgf/cm²) even in low-rise and high-rise building.
- Strainer filtering foreign substance at inlet or backflow preventive value preventing backflow can be attached optionally.

Major Components

No	Name of component	Quality of material
01	Body	CAC 203
02	Cover	CAC 203
03	Cover O-ring	SILICON
04	Strainer	PE
05	Spindle	C3604B E
06	Spindle O-ring	SILICON
07	Disk	C3604B E
08	Disk O-ring	SILICON
09	Disk Lock Nut	STS 304
10	Dise Holder	C3604B E

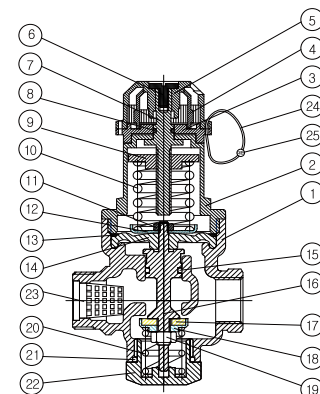
No	Name of component	Quality of material
11	Dise	NBR
12	Disk Lock Nut	STS 304
13	Spring	STS 304
14	Cap	C3604B E
15	Cap O-ring	NBR
16	Spring	SWRH 82B
17	Adjust Washel	C3604B E
18	Adjust Bolt	C3604B E
19	Adjust Bolt Washer	TEFLON

Specification

Model	DHG-302G	
Type	Direct Acting Type	
Size	15A / 20A	
Applicable Fluid	Cold water, Hot water	
Applicable Inlet Pressure	MAX, 10kgf/cm ² (0.98 Mpa)	
Applicable Temperature)	MAX, 80℃	
Min Differential Pressure across the Dise	0.5 kgf/cm ²	
Adjustment Range	0.5~3.0, 2.5~5.0kgf/cm ²	
Standard Setting Pressure	2.5 kgf/cm ² (0.245 Mpa)	
Max Reducing Rate	5 : 1	
Min Controllable Flow	정격유량의 5%	
Lpm	38lpm 이상	
End Connections	Inlet	KS PF UNION 슛나사
	Outlet	KS PT 암나사

Dier Pressure reducing valve direct-acting type (noise preventive function) for each household water supply

DHG-306G, 307, 308



Characteristic (Patented product for noise prevention)

- Pressure reducing valve of each household maintains pressure of supplying water constantly to protect device or pipe, and prevents trouble which occurs because of unbalance of pressure of water that flows in each household.
- Because O-ring unit of disk composed inside valve is operated in piston method on diameter area of main body of valve, valve is pushed gradually in spite of momentary strong pressure and it operates normally without noise and breakage even under the condition of 15~25kgf/cm² thanks to supplementary elasticity effect made by pressure-adjusting spring and compressing spring.
- Water can be supplied smoothly under comparatively low set pressure (3~5 kgf/cm²) even in low-rise and high-rise building.
- Strainer filtering foreign substance at inlet or backflow preventive value preventing backflow can be attached optionally.

Major Components

NO	PART NAME	MATERIAL
1	BODY	CAC203
2	COVER	CAC203
3	CAP GUIDE	ABS
4	CAP	ABS
5	HANDLE	ABS
6	SET SCREW	STS304
7	SPINDLE	C3604BE
8	O-RING	NBR
9	ADJUST NUT	C3604BE
10	SPRING	STS304
11	FLANGE NUT	STS304
12	WASHER	STS304
13	DIAPHRAGM GUIDE	PE

NO	PART NAME	MATERIAL
14	DIAPHRAGM	EPDM
15	O-RING	NBR
16	PISTON SPINDLE	C3604BE
17	DISK PACKING	NBR
18	DISK HOLDER	C3604BE
19	FLANGE NUT	STS304
20	SPRING	STS304
21	O-RING	NBR
22	CAP BOLT	C3771BE
23	STRAINER	PE
24	STOP RING	STS304
25	NUT	C3771BE

Specification

Model	DHG-306G	DHG-307	DHG-308
Type	Direct Acting Type		
Size	15A / 20A		
Applicable Fluid	Cold and hot water		
Applicable Inlet Pressure	MAX, 10kgf/cm ² (0.98 Mpa)		
Applicable Temperature)	MAX, 80℃		
Min Differential Pressure across the Dize	0.5 kgf/cm ²		
Adjustment Range	0.5~3.0, 2.5~5.0kgf/cm ²		
Standard Setting Pressure	2.5 kgf/cm ² (0.245 Mpa)		
Max Reducing Rate	5 : 1		
Min Controllable Flow	rated flow rate 5%		
Lpm	38lpm More than		
End Connections	Inlet	KS PF UNION Male screw	
	Outlet	KS PT a female screw	

Dier Pressure reducing valve direct-acting type (noise preventive function) for each household water supply

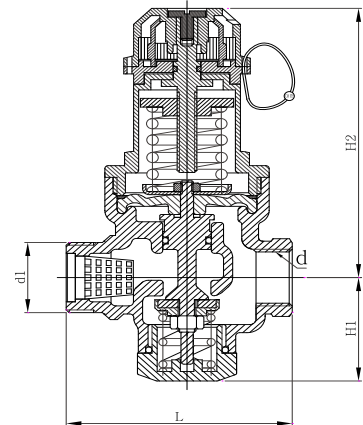
DHG-306G, 307, 308

DHG-306G

- Function of pressure reducing valve : Irregular pressure between households in apartment house can be adjusted according to condition of consumer and waste factor for water resources is eliminated.
- Rated quantity of flow : 44L/ min
- Connection : KS PT screwed

(단위 : mm)

SIZE	L	H1	H2	d	d1
15A	74,3	32	95	PT 1/2	PT 1/2
20A	74,3	32	95	PT 3/4	PT 3/4

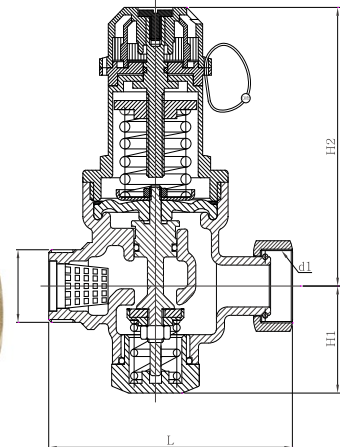


DHG-307

- Pressure reducing valve, strainer function : Foreign substance flowing-in is blocked by strainer and space for installation is saved.
- Connection : KS PT Union
- Rated quantity of flow : 44L/ min

(단위 : mm)

SIZE	L	H1	H2	d	d1
15A	90	38	100	PF 3/4	PF 3/4
20A	90	38	100	PF 3/4	PF 3/4

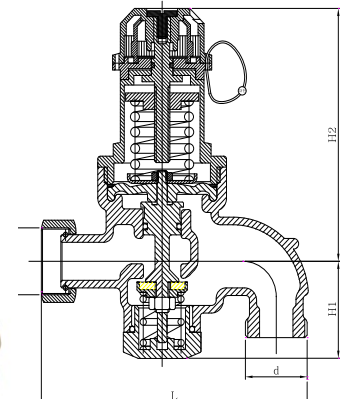


DHG-308

- Pressure reducing valve, check valve function : Blocking of backflow in low-pressure household is possible which is caused by unbalance of inflow pressure between households, and integrating error is prevented which can occur by reverse rotation of water meter.
- Connection : KS PT Union
- Rated quantity of flow : 43L/ min

(단위 : mm)

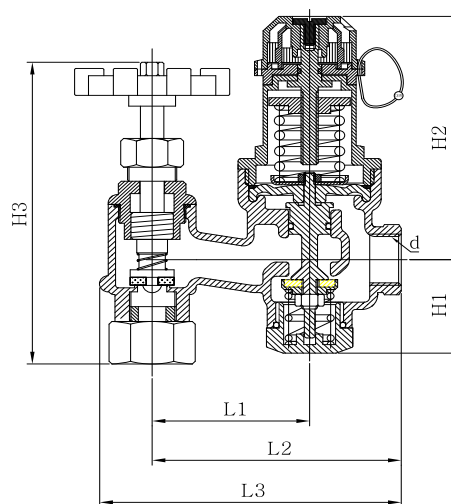
SIZE	L	H1	H2	d	d1
15A	98	38	100	PF 3/4	M24
20A	98	38	100	PF 3/4	M24



Angle integral, pressure reducing valve direct-acting type for water supply (Noise preventive function)

PATENT AND DESIGN REGISTERED

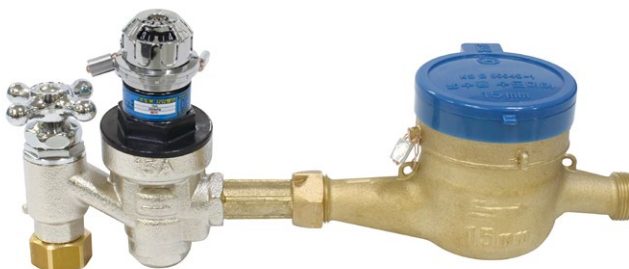
DHG-501G



Characteristic (Patented product for noise prevention)

- Being angle integral, pressure reducing valve for water supply, its construction is easy because installation in narrow space is possible.
- Connection clamping nut at bottom of angle valve being union type, pipe connection is easy.
- Backflow preventive function being built in, defect caused by idle running can be prevented, which assures exact measurement.
- Pressure reducing valve being manufactured in direct-acting type(Disk type), pressure loss also can be prevented when supplying water, and pressure within pipe can be maintained constantly in spite of change in momentary strong pressure.
- Especially, noise caused by unbalance of pressure within pipe can be prevented.

Piping method, using angle integral type pressure reducing valve



(Unit : mm)

SIZE	H1	H2	H3	L1	L2	L3	d
15A	32	95	110	49	83,5	98,5	

Specification

Size	15A/20A						
Type	Direct Acting Type						
Applicable fluid	Cold & Hot water						
Inlet pressure for use	MAX, 10kgf/cm ² (0.98 MPa)						
Outlet adjusted pressure	0.5~3.0, 2.5~5.0kgf/cm ²						
Standard setting pressure	2.5 kgf/cm ² (0.245 MPa)						
Applicable temperature	MAX, 80℃						
Minimum differential pressure for operation	0.5 kgf/cm ² (0.049 MPa)						
Maximum pressure reducing ratio	5 : 1						
Minimum adjusted quantity of flow	5% of rated quantity of flow						
Connection	KS taper screw for pipe (Rc), NPT screw						
Major quality of material	Body	CAC203 (Ni-Cr Plating)					
	Cover	CAC203(Ni-Cr Plating)					
	Pressure actuating unit	DISK(C3604BE) Ni-Cr Plating					
	Spring	SWRH 72B(Ni-Cr Plating)					
	Disc	HOLDER(3604BE), NBR					
	Packing & O-Ring	E.P.D.M					

Example of an on-site piping installation / Union pipe nut for piping (dimensions)



Water angle Water pressure reducing valve
Water meter piping for freeze prevention



Water angle Integrated water pressure reducing valve
Water meter piping for freeze prevention



Dial direct piping connection pressure
reducing valve/Water meter piping



Dial direct piping connection pressure
reducing valve/Water meter piping

Union pipe nut for piping (dimensions)



* 소비자 정보 *
환경표시 인증 사유 : 유해물질 감소



Certified product / Union pipe nut for piping (dimensions)



Angle valve for water supply (Backflow preventive device built-in type)



DHV-703 Water supply angle screw type (15mm)



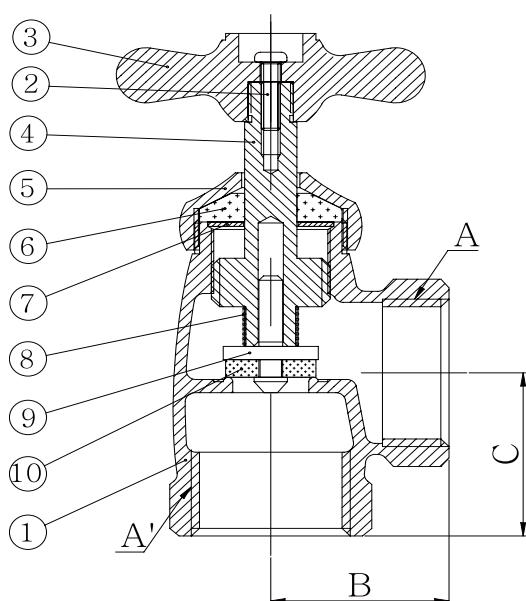
DHV-701 Water supply angle socket type (15mm~50mm)



DHV-702 Water supply angle screw type (15mm~50mm)



DHV-703 Water supply angle water meter protective box assembly type (Screw type 15mm~50mm)



Characteristic of Product

- As it is manufactured with brass material, it can be used widely for both household and industry.
- Being plated with Ni, Cr, it is not corroded and has elegant appearance.
- Backflow preventive device being built in, it can prevent defect caused by idling running and exact measurement is possible.
- It also has water hammer preventive function.

Specification

- Use : For cold & hot water, Water supply angle
- Pressure for use : 0.98MPa
- Testing pressure (Internal pressure) : 1.96MPa

Major Dimension

Title	A	A'	B	C
15A	PT 1/2×14	PT 1/2×14	27.5	26
20A	PT 3/4×14	PT 3/4×14	32.5	32
25A	PT 1×11	PT 1×11	37.5	37
32A	PT 1 1/4×11	PT 1 1/4×11	47.5	46.5
40A	PT 1 1/2×11	PT 1 1/2×11	48.5	50
50A	PT 2×11	PT 2×11	54.5	56.5

Quality of material of major components

No.	Part Name	Material
1	Body	CAC203
2	Handle Set Screw	STS304
3	Handle	ABS
4	Spindle Screw	C3604BE
5	Lock Nut	C3771BE
6	Spindle Packing	NBR
7	Flat Washer	STS304
8	Spring	STS304
9	Disk Holder	C3604BE
10	Disk Packing	NBR



공장 전경



전자동 수도미터 시험 검사대
1.6배두 100~200배율
계량 기능공사(15~50mm)



전자동 수도미터 시험 검사대
1.6배두 100~200배율
독일 제너사(15~50mm)



수도미터 주물 가공 시설



수도미터 내갑 사출기



수도미터 내갑 금형보



수도미터 전시제품



디지털전자식 수도미터 전시제품



공장 내부 전경

DAEHAN SMART REMOTE METER READING SOLUTIONS (CONFIGURATION DIAGRAM)



NEW TECHNOLOGY



Production item

- ▶ Water Meter (15 ~ 300 mm)
- ▶ Multi - Jet Wet / Multi - Jet Dry
- ▶ Multi - Jet Dry Digital / Waltman
- ▶ Single - Jet Dry / Single - Jet Dry Digital
- ▶ Calorimeter (15 ~ 25 mm)
- ▶ Pressure Reducing Valve
- ▶ Angle Valve for Water

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