



# **GALA** Regulating Systems

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# **Company Profile**

# GALA - Extends Business on a Global Perspective.

GALA company offers a wide range of products and systems in the field of valves, piping, and seismic isolation for applications ranging from equipment for office buildings, fire fighting, heating, water works, sewerage, marine, industrial to top fluid control. Our aim is meaningful contribution to society by providing comfort and safety through our products, technical skills and services!

# GALA - Professional Manufacturer of Industrial Valves

GALA have variety products to meet customer demand of different valve. Designing, manufacture and sale of one-stop service is the company's core strengths.

# GALA products cover the following industry area:

Water supply system, water treatment, food, chemical, cement, air-conditioning systems, industry engineering, nuclear power, papermaking, Petrochemical Industry, pharmaceutical, Powder Industry, steel industry, sugar refining, textiles and so on. GALA anti-pollution environmental protection industry is one of the major business. GALA provides various valve for wastewater processing and exhaust gas processing.

# GALA have wide variety of industrial valves, including following main products:

- Fire Protection Valve
- Balancing Valve
- Butterfly Valve
- Gate Valve, Globe Valve, Check Valve, Ball Valve
- Strainer
- Flexible Rubber Joint
- Flexible Stainless Steel Hose, Expansion Joint

Other Valves and fittings are also available from GALA.

All products will be designed, manufactured and assembly by GALA.





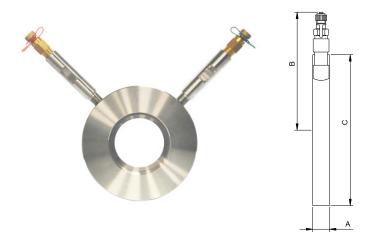


# Double Flow Measurement Device

#### Fig. 1200-SSW

#### Specification

1200 is a stainless steel orifice plate having a square edged entrance. The two stainless steel extension tubes are fitted with pressure test valves. Accuracy of flow measurement at normal velocities is  $\pm 3\%$ .



#### **Dimensions/Coefficients:**

Temperature °C	-10 to 100	110	120
Pressure(Bar)	25	25	25

#### Materials:

Part	Material
Orifice and carrier	Stainless steel
Extension tubes	Stainless steel
Pressure test valves	Brass

1200 flow measurement devices are suitable for use with PN10, PN16, or PN25 flanges or flanged valves having ratings detailed in the appropriate flange or valve product standard. When normally fitted with pressure test valves, the 1200 is limited to  $120^{\circ}$  max. For use at temperatures above  $120^{\circ}$  suitable alternative pressure test valves should be fitted.

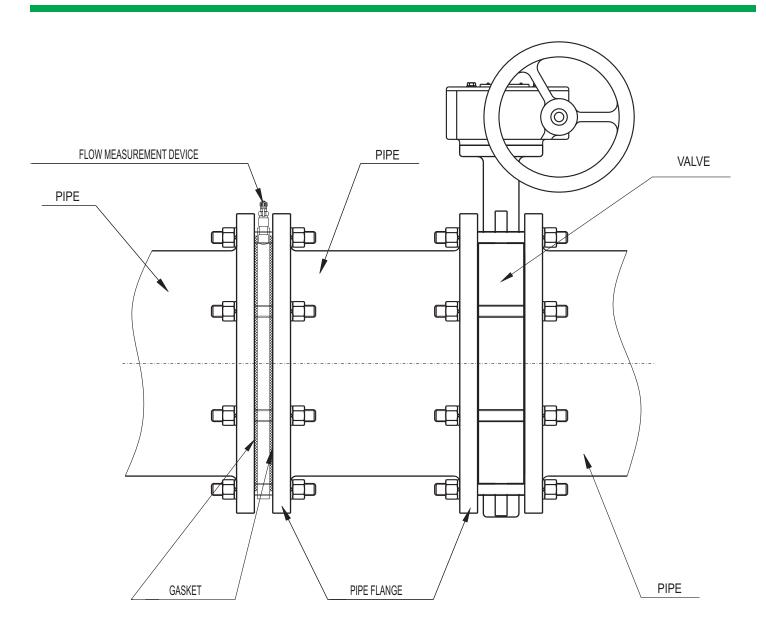
#### **Dimensions/Coefficients:**

DN		Face-to-face	Centre-to-top	Outside diameter C mm		Flow	Headloss	Kvs
		A mm	B mm	PN16	PN25	Kv	К	
2-1/2	65	18	112	127	127	151	1.6	104
3	80	18	118	142	142	203	1.4	116
4	100	18	125	162	168	351	1.4	213
5	125	18	135	192	194	550	1.3	333
6	150	18	145	218	224	765	1.7	476
8	200	18	165	273	284	1354	1.8	768
10	250	18	185	329	340	2103	1.8	1153
12	300	18	205	384	400	3009	1.4	1743
14	350	21	222	444	457	2734	2.5	1875
16	400	21	240	495	514	3507	2.5	2582
18	450	21	261	555	564	4543	2.5	3270
20	500	21	283	617	624	5603	2.5	4079
24	600	25	325	734	731	8111	2.5	4938

Larger sizes and other flange mounting available on application.



# Double Flow Measurement Device



#### Installation

The 1200-SSW can be mounted between valve and/or pipe flanges to BS EN 1092-2 having PN10, PN16 or PN25 ratings. The outside diameter ensures a proper alignment when installed between PN10/16 flanges and PN25 flanges up to 80mm size. When assembling between PN25 flanges sizes 100mm and larger, ensure the device has been correctly centred with the mating flanges.

#### Application

1200-SSW can be used as a single unit or close coupled to other regulating or isolating valves to provide accurate flow measurement.

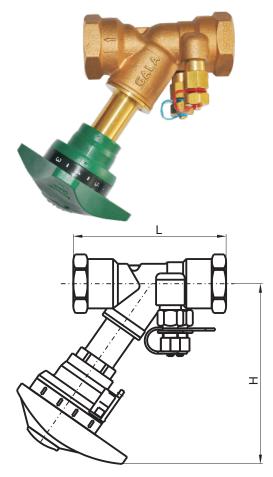


Fixed Orifice Double Regulating Valve

# CLASS 150

# Fig. 1209-BT

NPT Threaded ends for Single Unit Systems Conforms to BS7350



# Specification

Y-pattern globe valves having characterised throttling disk tending towards equal percentage performance. Integral square edged entrance orifice plate and insertion test points fitted. Double regulating feature allows valve opening to be set with an Allen key. Operation of the valve is by means of the Microset hand wheel.

#### **End Connection**

Size <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>": threaded to BS 2779(ISO7) Size 1" to 2": threaded to BS 10266(ISO7) Also available threaded to ANSI B1.20.1 Adaptor kits for use with copper tube also available

# Application

This single unit-commissioning valve is designed for installation in circuits where combined functions of regulation and flow measurement are required. Accuracy of flow measurement is ±5% across all hand wheel settings.

# **Pressure Temperature Ratings**

Temperature °c	-10 to 100	110	120
Pressure (Bar)	25	23.4	21.8

#### **Materials**

Part	Material	ASTM Specification	Part	Material	ASTM Specification
Body	Bronze	B62 C83600	Disc(15-20)	Brass	B453 C35330
Bonnet(15-32	) Brass	B453 C35330	Disc(25-50)	Brass+PTFE	B453 C35330
Bonnet(40-50	) Bronze	B62 C83600	Orifice Insert	Brass	B453 C35330
Stem	Brass	B453 C35330	Hand Wheel	Plastic	Commercial

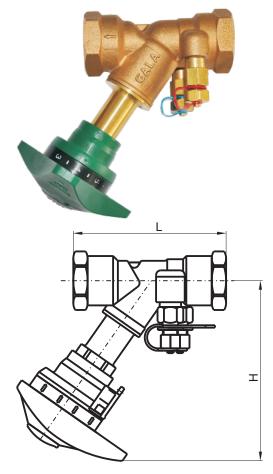
Nom. Size		Dimensi	ons(mm)	Flow	Kvs			
		L	Н	Kv				
<sup>1</sup> / <sub>2</sub>	DN15	87	113	1.72	2.20			
<sup>3</sup> / <sub>4</sub>	DN20	96	114	2.97	4.60			
1	DN25	100	135	4.75	8.50			
1 <sup>1</sup> / <sub>4</sub>	DN32	114	136	10.25	16.70			
1 <sup>1</sup> / <sub>2</sub>	DN40	125	151	16.83	26.10			
2	DN50	146	152	27.26	43.20			



Fixed Orifice Double Regulating Valve

# PN25

Fig. 1209-BTM Threaded BS21(ISO7) for Single Unit Systems Conforms to BS7350



# Specification

Y-pattern globe valves having characterised throttling disk tending towards equal percentage performance. Integral square edged entrance orifice plate and insertion test points fitted. Double regulating feature allows valve opening to be set with an Allen key. Operation of the valve is by means of the Microset hand wheel.

### **End Connection**

Size <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>": threaded to BS 2779(ISO7) Size 1" to 2": threaded to BS 10266(ISO7) Also available threaded to ANSI B1.20.1 Adaptor kits for use with copper tube also available

# Application

This single unit-commissioning valve is designed for installation in circuits where combined functions of regulation and flow measurement are required. Accuracy of flow measurement is ±5% across all hand wheel settings.

# **Pressure Temperature Ratings**

Temperature °c	-10 to 100	110	120
Pressure (Bar)	25	23.4	21.8

#### **Materials**

Part	Material	Specification	Part	Material	Specification
Body	Bronze	BSEN1982 CC491K	Disc(15-20)	Brass	BSEN12165 CW602N
Bonnet(15-32	) Brass	BSEN12165 CW602N	Disc(25-50)	Brass+PTFE	BSEN 12165 CW602N
Bonnet(40-50	) Bronze	BSEN1982 CC491K	Orifice Insert	Brass	BSEN 12165 CW602N
Stem	Brass	BSEN12165 CW602N	Hand Wheel	Plastic	Commercial

Nom. Size		Dimensi	ons(mm)	Flow	Kvs			
		L	Н	Kv				
<sup>1</sup> / <sub>2</sub>	DN15	87	113	1.72	2.20			
<sup>3</sup> / <sub>4</sub>	DN20	96	114	2.97	4.60			
1	DN25	100	135	4.75	8.50			
<b>1</b> <sup>1</sup> / <sub>4</sub>	DN32	114	136	10.25	16.70			
1 <sup>1</sup> / <sub>2</sub>	DN40	125	151	16.83	26.10			
2	DN50	146	152	27.26	43.20			

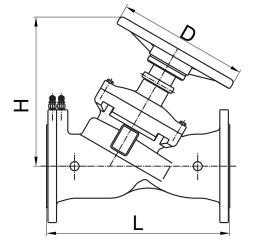


# CLASS 125 / CLASS 250

Fixed Orifice Double Regulating Valve

Fig. 1209-DF ANSI Flanged Ends for Single Unit Systems Conforms to BS7350





#### Specification

Single unit Y-pattern globe valves incorporating an integral orifice plate to form a fixed orifice flow measurement unit with regulation and isolation capacity. Valves conform to requirements of BS 7350.

#### Application

Primarily used in injection or other circuits requiring a double regulating value for systems balancing. Accuracy of flow measurement is  $\pm 5\%$  at all open positions of the value in accordance with BS 7350.

#### **Pressure/Temerature Ratings**

	PN16	PN25	
Temperature <sup>®</sup> C	-10	to 120	
Working Pressure(Ba	r) 16	25	
Test Pressure(Bar)	Shell:24	Shell:37.5	
	Seat:17.6	Seat:27.5	
Materials			
Part	Material	<b>ASTM Specification</b>	
Body	Ductile	A536 65-45-12	
Bonnet	Ductile	A536 65-45-12	
Stem	Stainless Steel 410	AISI 410	
Disc	EPDM Coated DI	A536 65-45-12	
Gland (65-150mm)	Brass	B124 C37700	
Gland (200-300mm)	Ductile	A536 65-45-12	
Stem Nut	Brass	B124 C37700	
Hand Wheel	Ductile	A536 65-45-12	
Test Valve	Brass	B453 C35330	
Orifice Insert	Brass	B124 C37700	
Packing	Graphite	Non-Asbestos	

Nom	n. Size	Dim	nensions(m H	nm) D	Flow Kv	Head loss K	Kvs
1		L		_			
$2^{1}/_{2}$	DN65	290	265	200	104	5.32	104
3	DN80	310	270	200	112	6.48	116
4	DN100	350	310	240	162	13.15	213
5	DN125	400	340	290	254	8.32	333
6	DN150	480	340	290	335	7.33	476
8	DN200	600	537	350	535	8.26	768
10	DN250	730	570	420	1099	7.27	1153
12	DN300	850	690	420	1588	8.36	1743



### Fixed Orifice Double Regulating Valve

Fig. 1209-DFM Flanged PN16 or PN25 for Single Unit Systems Conforms to BS7350



PN16/PN25

# 

#### Specification

Single unit Y-pattern globe valves incorporating an integral orifice plate to form a fixed orifice flow measurement unit with regulation and isolation capacity. Valves conform to requirements of BS 7350.

#### Application

Primarily used in injection or other circuits requiring a double regulating valve for systems balancing. Accuracy of flow measurement is ±5% at all open positions of the valve in accordance with BS 7350.

#### **Pressure/Temerature Ratings**

	PN16	PN25		
Temperature <sup>°</sup> C	-10	to 120		
Working Pressure(Ba	r) 16	25		
Test Pressure(Bar)	Shell:24	Shell:37.5		
	Seat:17.6	Seat:27.5		
Materials				
Part	Material	Specification		
Body	Ductile	EN-JL 1050		
Bonnet	Ductile	EN-JL 1050		
Stem	Stainless Steel 410	BS970 410S21		
Disc	EPDM Coated DI	EN-JL 1050		
Gland (65-150mm)	Brass	EN 12165 CW617N		
Gland (200-300mm)	Ductile	EN-JL 1050		
Stem Nut	Brass	EN 12165 CW617N		
Hand Wheel	Ductile	EN-JL 1050		
Test Valve	Brass	EN 12165 CW602N		
Orifice Insert	Brass	EN 12165 CW617N		
Packing	Graphite	Non-Asbestos		

Nom	n. Size	Dim	nensions(m H	nm) D	Flow Kv	Head loss K	Kvs
$2^{1}/_{2}$	DN65	290	265	200	104	5.32	104
3	DN80	310	270	200	112	6.48	116
4	DN100	350	310	240	162	13.15	213
5	DN125	400	340	290	254	8.32	333
6	DN150	480	340	290	335	7.33	476
8	DN200	600	537	350	535	8.26	768
10	DN250	730	570	420	1099	7.27	1153
12	DN300	850	690	420	1588	8.36	1743



# CLASS 125 / CLASS 250

### Variable Orifice Double Regulating Valve

Fig. 1210-DF ANSI Flanged Ends for Single Unit Systems Conforms to BS7350



D

m

# Specification

These are Y-pattem globe valves fitted with two pressure test valves to provide flow measurement, regulation and isolation. Valves conform to requirements of BS7350.

#### Application

Primarily used in injection or other circuits requiring a double regulating valve for systems balancing. Accuracy of flow measurement is ±5% at all open positions of the valve. Some reduction in accordance with BS 7350.

#### **Pressure/Temerature Ratings**

	PN16	PN25
Temperature <sup>°</sup> C	-10 t	o 120
Working Pressure(Ba	r) 16	25
Test Pressure(Bar)	Shell:24	Shell:37.5
	Seat:17.6	Seat:27.5
Materials		
Part	Material	ASTM Specification
Body	Ductile	A536 65-45-12
Bonnet	Ductile	A536 65-45-12
Stem	Stainless Steel 410	AISI 410
Disc	EPDM Coated DI	A536 65-45-12
Gland (65-150mm)	Brass	B124 C37700
Gland (200-300mm)	Ductile	A536 65-45-12
Stem Nut	Brass	B124 C37700
Hand Wheel	Ductile	A536 65-45-12
Test Valve	Brass	B453 C35330
Packing	Graphite	Non-Asbestos

# **Dimensions, Coefficients**

Т

Nom	ı. Size	Di	mensions(mr	n)	Flow	Head loss
		L	Н	D	Kv	K
$2^{1}/_{2}$	DN65	290	265	200	83.8	3.78
3	DN80	310	270	200	119.5	5.24
4	DN100	350	310	240	178.7	9.53
5	DN125	400	340	290	272.7	6.98
6	DN150	480	340	290	380	5.35
8	DN200	600	537	350	608	6.26
10	DN250	730	570	420	1292	5.57
12	DN300	850	690	420	1791	6.43



#### Variable Orifice Double Regulating Valve

PN16/PN25

Т

Fig. 1210-DFM Flanged PN16 or PN25 for Single Unit Systems Conforms to BS7350



D



These are Y-pattem globe valves fitted with two pressure test valves to provide flow measurement, regulation and isolation. Valves conform to requirements of BS7350.

#### Application

Primarily used in injection or other circuits requiring a double regulating valve for systems balancing. Accuracy of flow measurement is ±5% at all open positions of the valve. Some reduction in accordance with BS 7350.

#### **Pressure/Temerature Ratings**

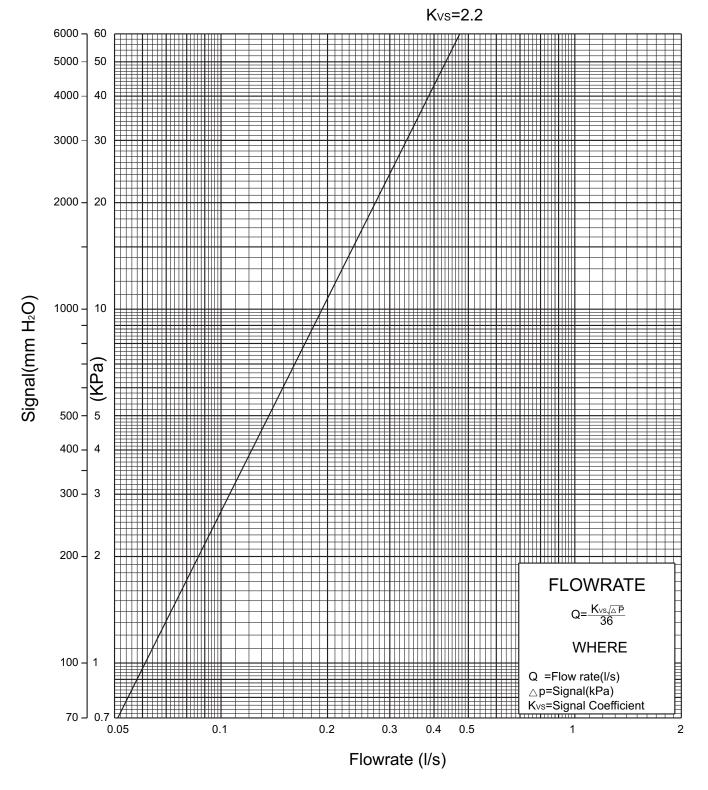
	PN16	PN25	
<b>Temperature</b> °C	-10	to 120	
Working Pressure(Ba	ır) 16	25	
Test Pressure(Bar)	Shell:24	Shell:37.5	
	Seat:17.6	Seat:27.5	
Materials			
Part	Material	Specification	
Body	Ductile	EN-JL 1050	
Bonnet	Ductile	EN-JL 1050	
Stem	Stainless Steel 410	BS970 410S21	
Disc	EPDM Coated DI	EN-JL 1050	
Gland (65-150mm)	Brass	EN 12165 CW617N	
Gland (200-300mm)	Ductile	EN-JL 1050	
Stem Nut	Brass	EN 12165 CW617N	
Hand Wheel	Ductile	EN-JL 1050	
Test Valve	Brass	EN 12165 CW602N	
Packing	Graphite	Non-Asbestos	

Nom	n. Size	Di	mensions(mr	m)	Flow	Head loss
		L	Н	D	Kv	K
2 <sup>1</sup> / <sub>2</sub>	DN65	290	265	200	83.8	3.78
3	DN80	310	270	200	119.5	5.24
4	DN100	350	310	240	178.7	9.53
5	DN125	400	340	290	272.7	6.98
6	DN150	480	340	290	380	5.35
8	DN200	600	537	350	608	6.26
10	DN250	730	570	420	1292	5.57
12	DN300	850	690	420	1791	6.43

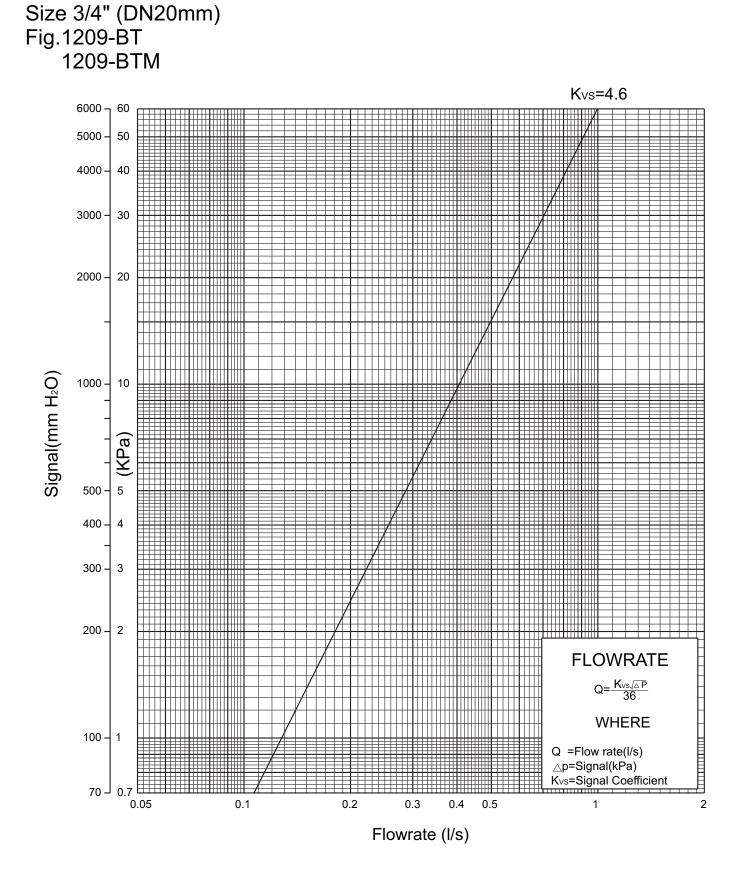


Fixed orifice devices for standard applications

# Size 1/2" (DN15mm) Fig.1209-BT 1209-BTM



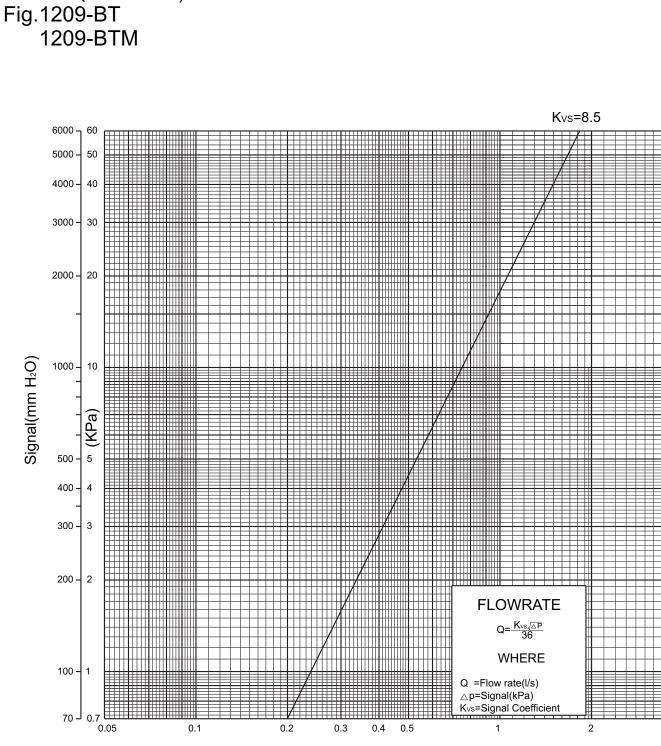






Size 1" (DN25mm)

Fixed orifice devices for standard applications



Flowrate (I/s)

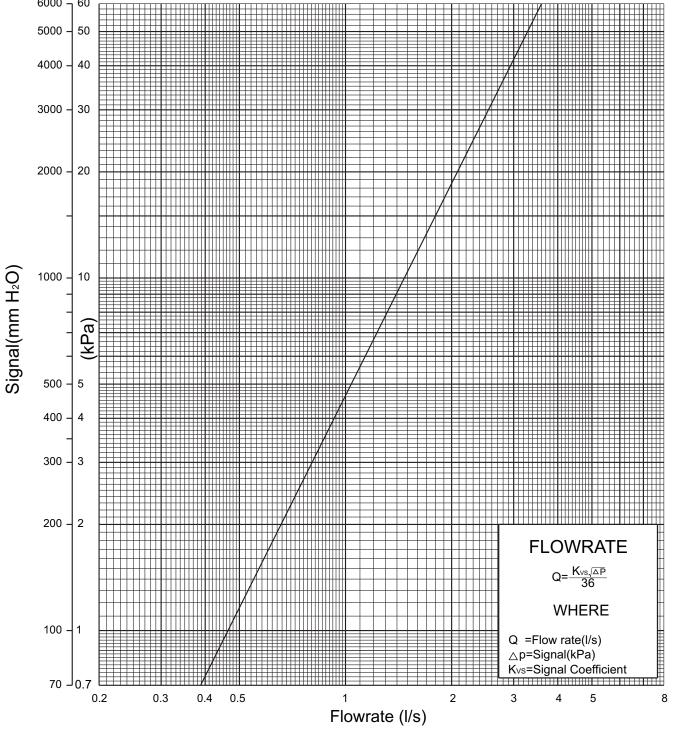
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Fixed orifice devices for standard applications

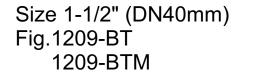
Kvs=16.7

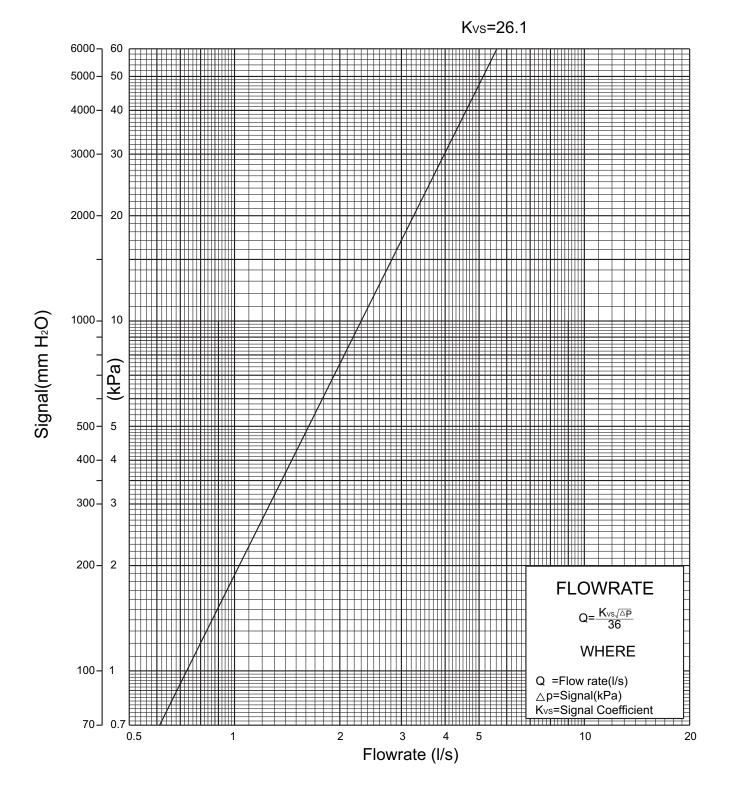
# Size 1-1/4" (DN32mm) Fig.1209-BT 1209-BTM





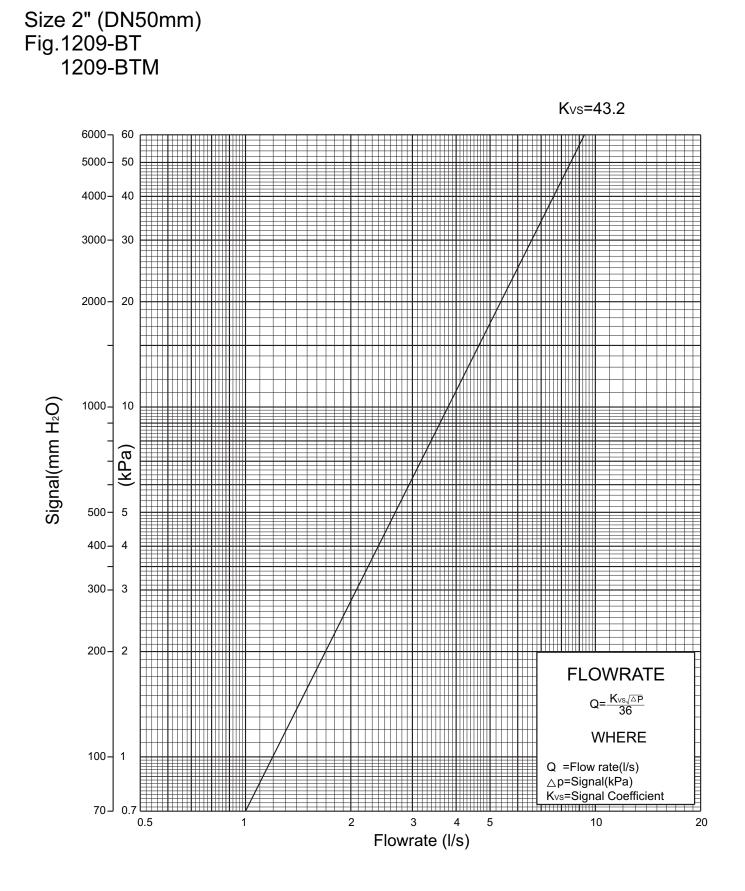
Fixed orifice devices for standard applications



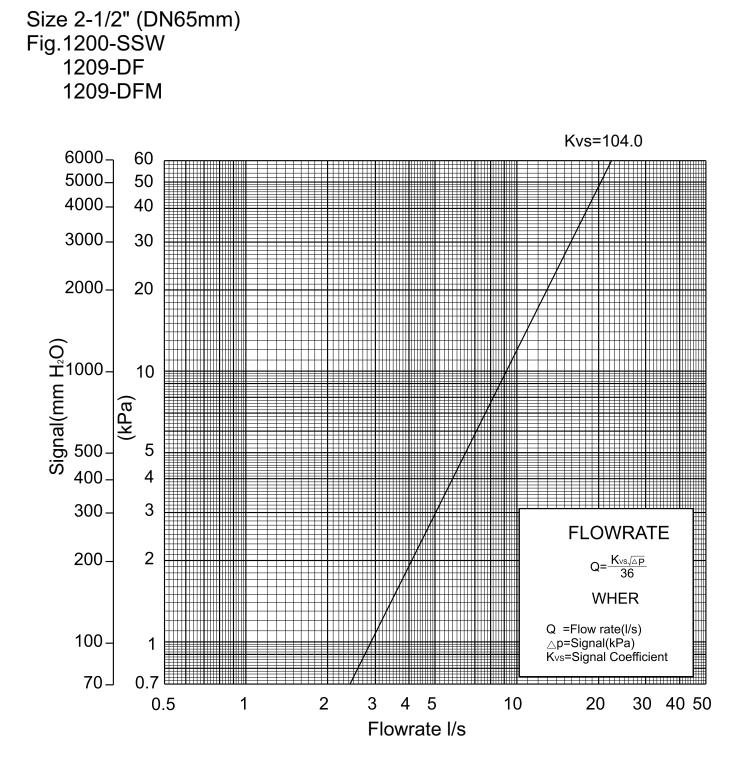




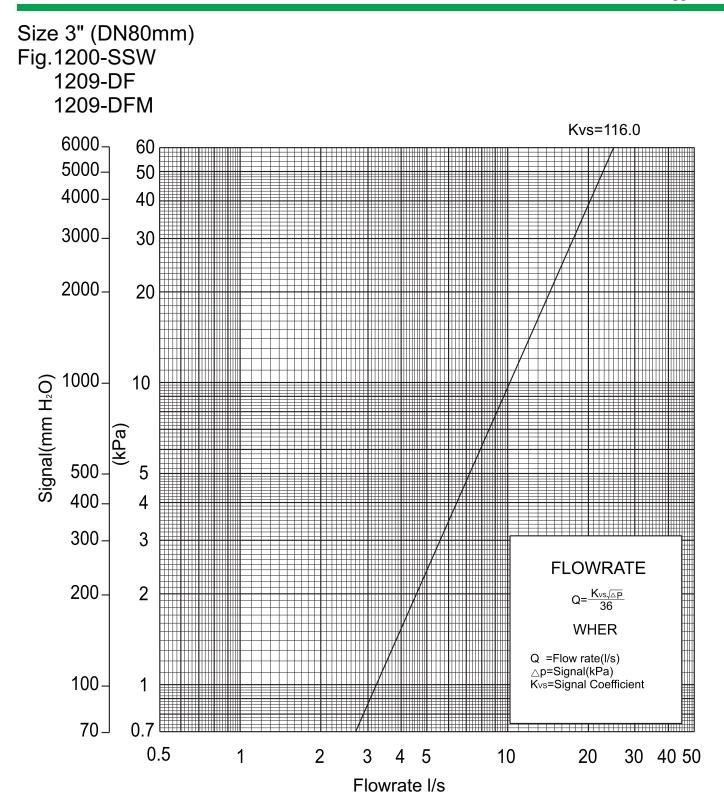
Fixed orifice devices for standard applications





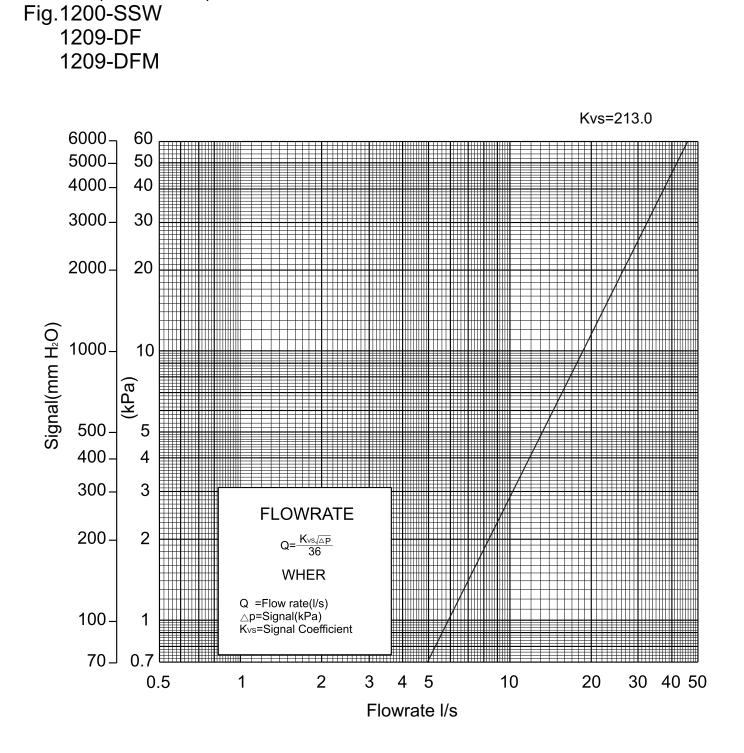






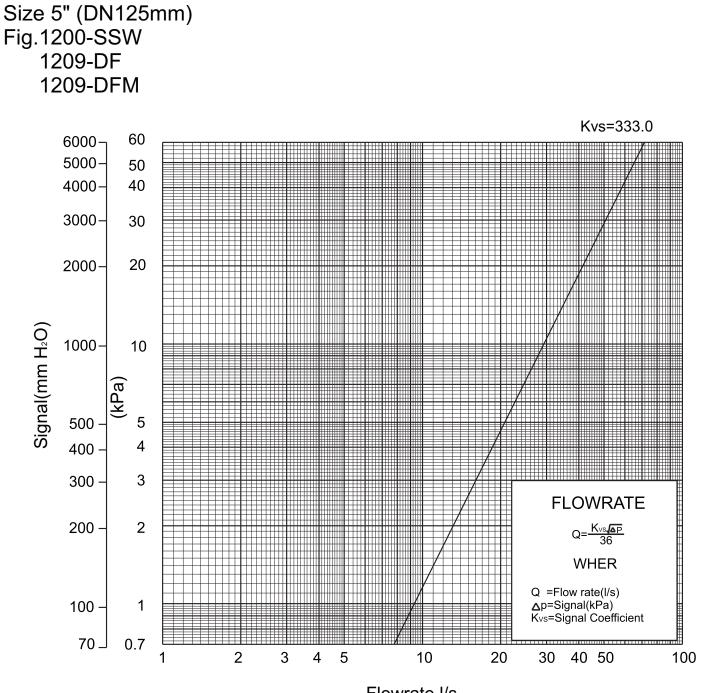


Size 4" (DN100mm)



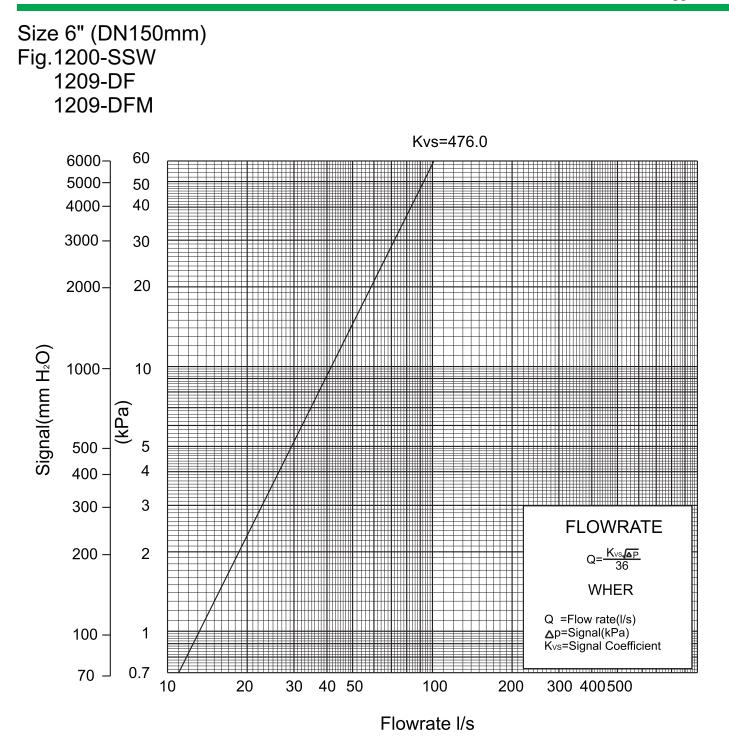


Fixed orifice devices for standard applications

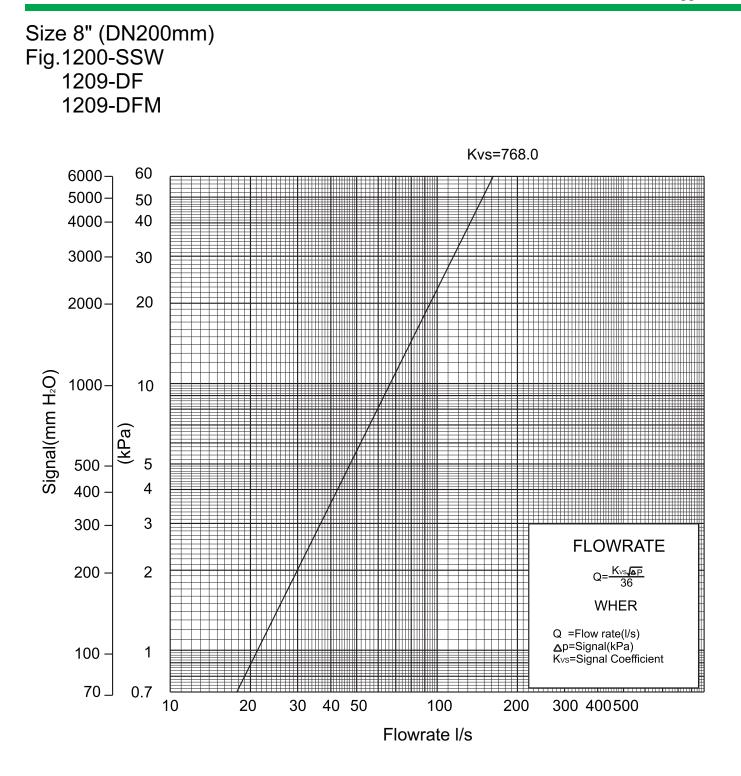


Flowrate I/s

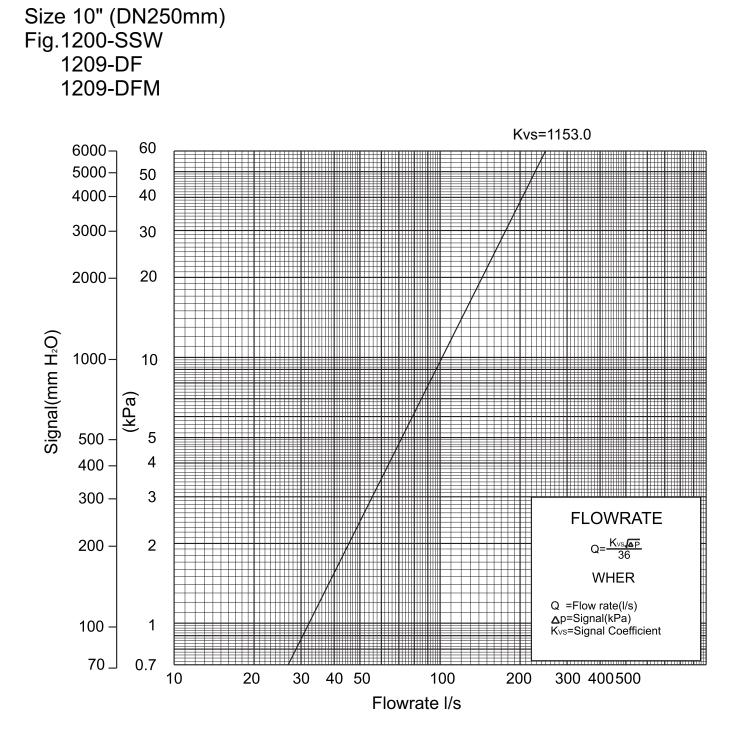




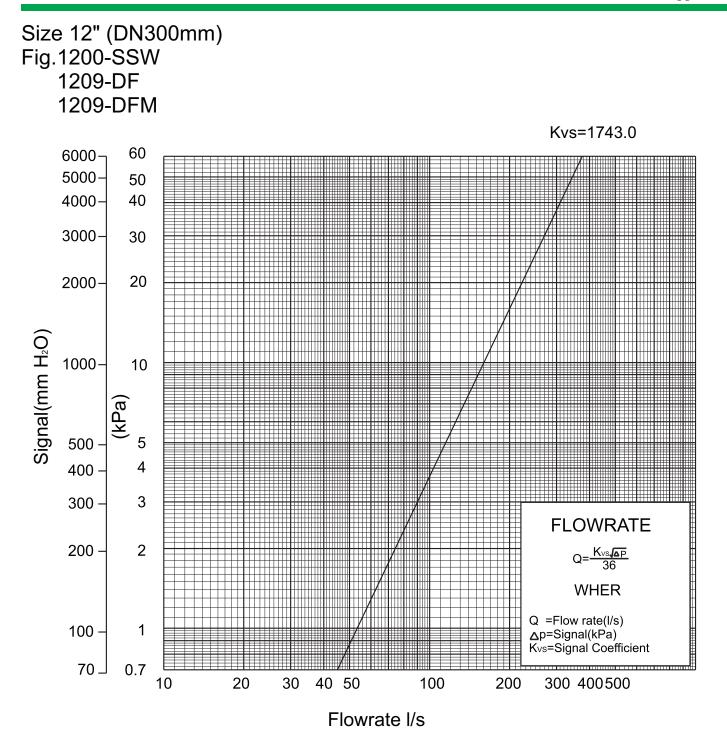








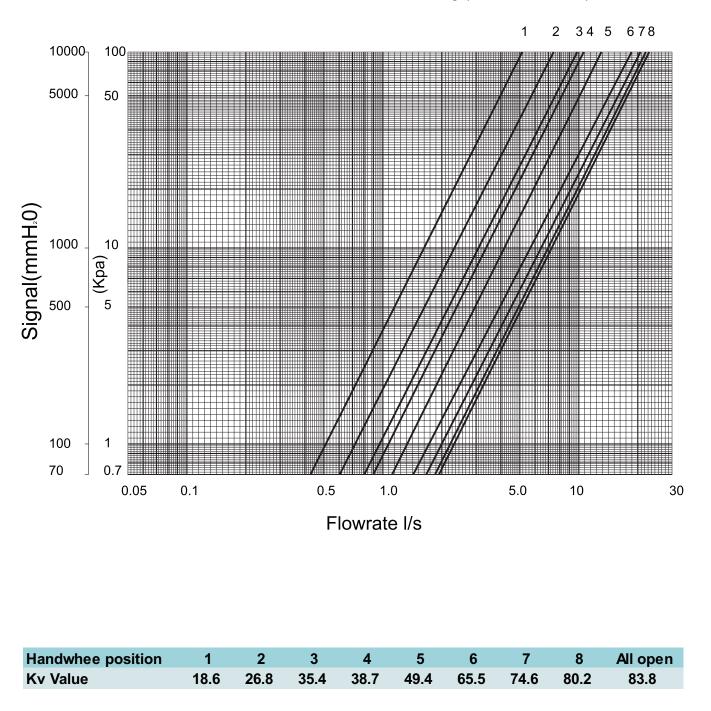






Variable orifice double regulating valve for standard applications

# Size 2-1/2" (DN65mm) Fig.1210-DF 1210-DFM

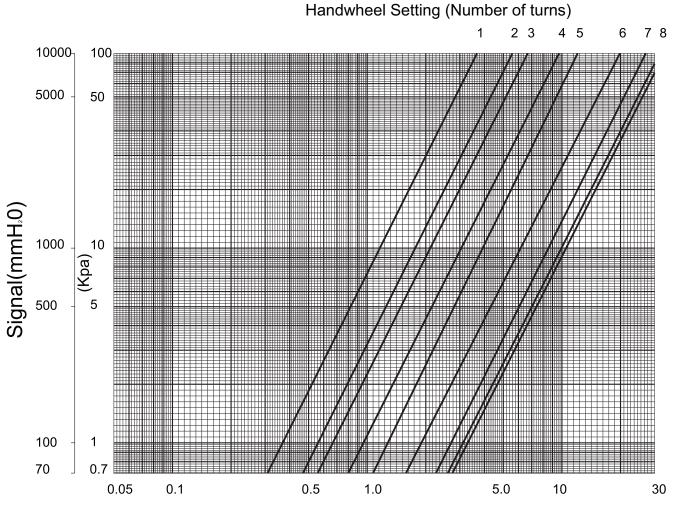


Handwheel Setting (Number of turns)



Variable orifice double regulating valve for standard applications

# Size 3" (DN80mm) Fig.1210-DF 1210-DFM

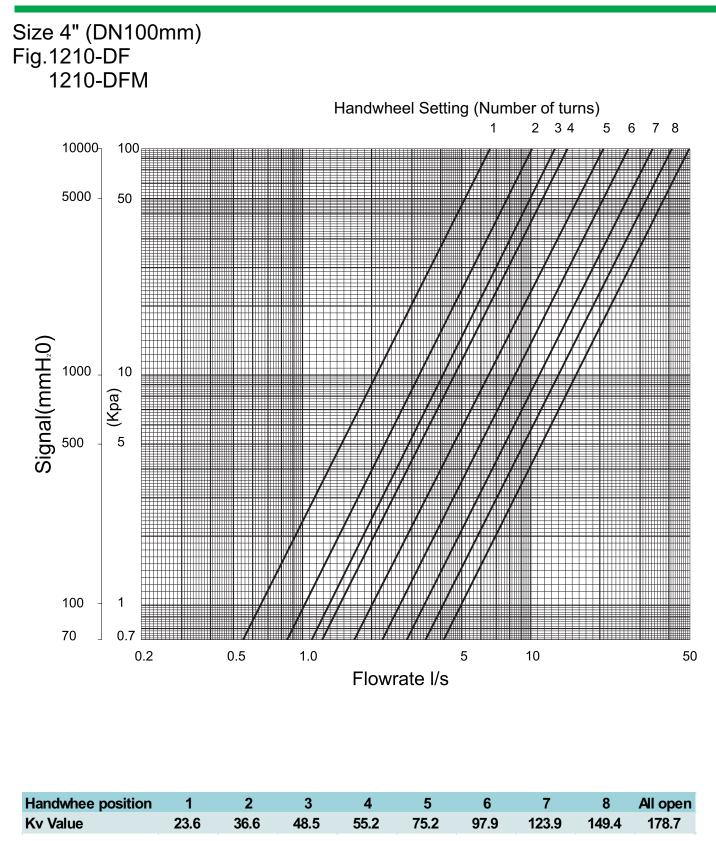


Flowrate I/s

Handwhee position	1	2	3	4	5	6	7	8	All open
Kv Value	13.3	20.0	24.1	34.9	45.9	71.6	98.8	113.7	83.8

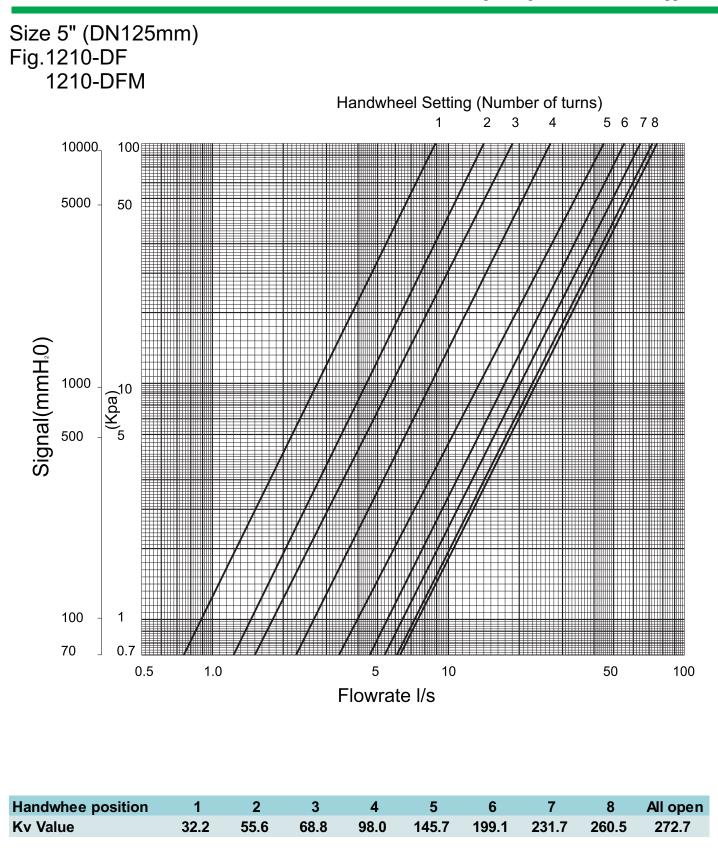


Variable orifice double regulating valve for standard applications





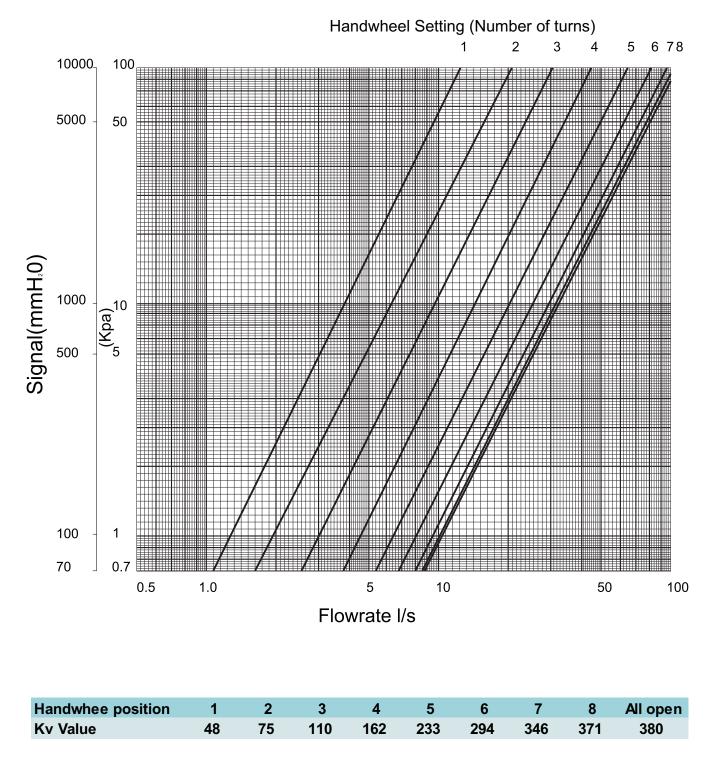
Variable orifice double regulating valve for standard applications





Variable orifice double regulating valve for standard applications

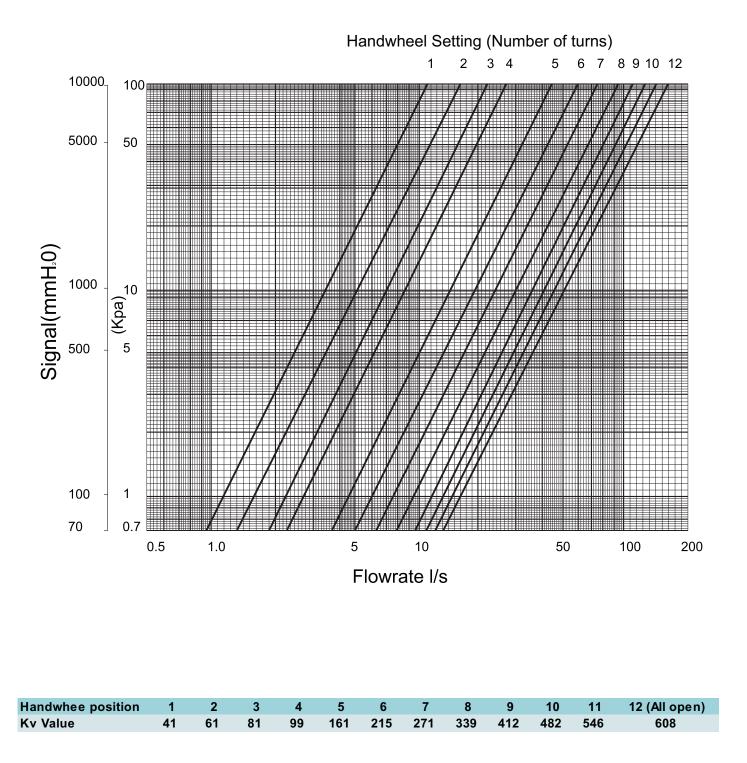
# Size 6" (DN150mm) Fig.1210-DF 1210-DFM





Variable orifice double regulating valve for standard applications

# Size 8" (DN200mm) Fig.1210-DF 1210-DFM





Variable orifice double regulating valve for standard applications

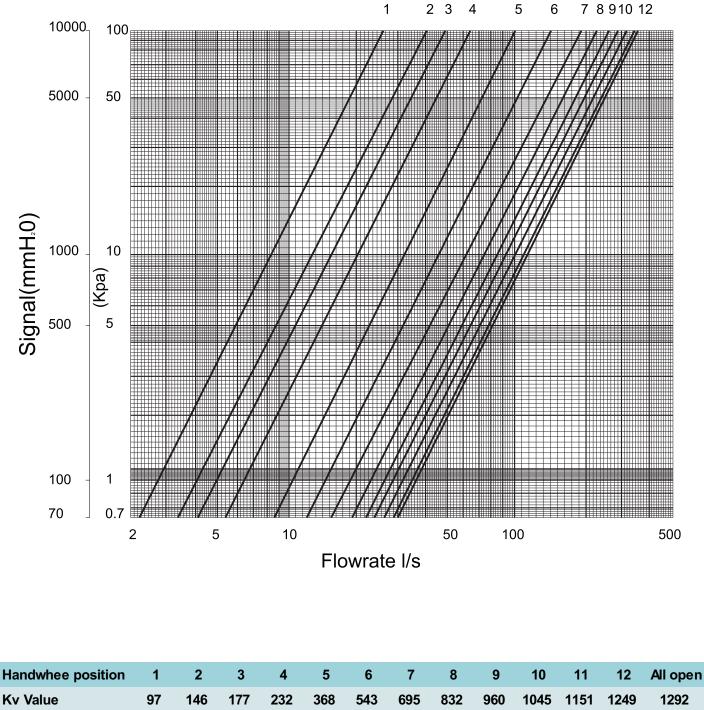
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6

2 3

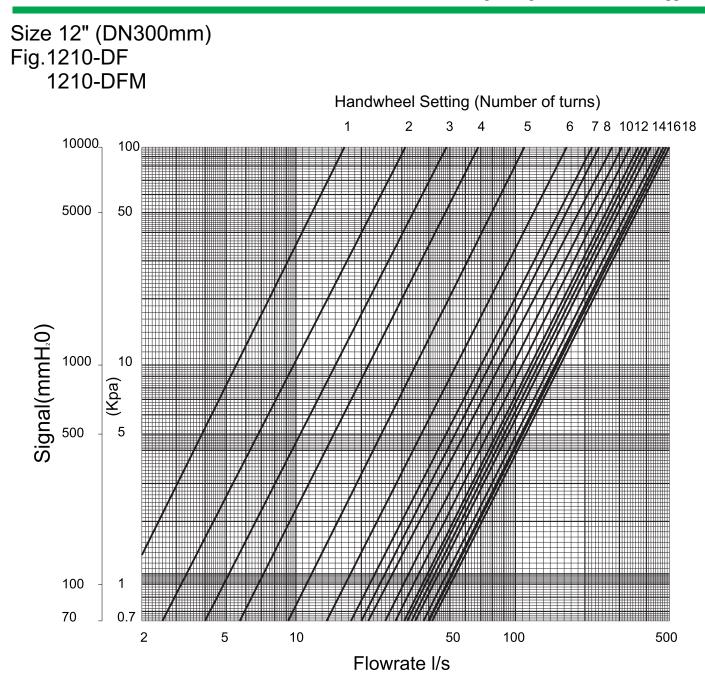
4

# Size 10" (DN250mm) Fig.1210-DF 1210-DFM Handwheel Setting (Number of turns) 1 100 10000\_ 5000 50





Variable orifice double regulating valve for standard applications



Handwhee position	1	2	3	4	5	6	7	8	9	10
Kv Value	63	113	174	245	397	628	792	873	1002	1112
Handwhee position	11	12	13	14	15	16	17	18	Allo	pen
Kv Value	1223	1331	1383	1444	1505	1639	1707	1730	17	91

# **GALA** Regulating Systems

# Fixed Orifice Double Regulating Valve - Installation Instructions

#### Application

Static balance is achieved by pre-setting of opening position, which could be read by scale on two circles (one for basic circle and another for fine adjustable circle). DN15-50 valves have two pressure testing connectors, while DN65 and above have two plugs on the valves, two testing connectors in the package to be replaced on jobsite. The valves may be installed in either the supply or the return pipe, and normally on the return pipe.

#### Inspection And Storage

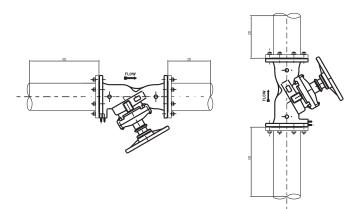
Inspect valves while receiving the valve. Put all valves carefully on the ground. When lifting, the valve should be tightly secured and never lifted by the bronze or stainless steel trim.

The valves should keep clean and dry before installation. If storage period more than six months, the surfaces of the seat (when provided) should be coated with a thin film of FDA approved grease. Do not expose rubber seat to sunlight or ozone.

#### Installation

The flow arrow on the valve must be the same to the flow direction in the pipe system.

The valve must be installed in a run of pipe of the same nominal size. All valves are recommended to be installed as fig below. To ensure flow measurement accuracy it is essential that the piping on the inlet and outlet sides is straight and has a minimum length equivalent to 5 diameters at inlet and 2 diameters at outlet as shown. If the valve is located on the outlet from a pump then it is essential that the straight pipe length between pump outlet and valve inlet is a minimum of 10 diameters.

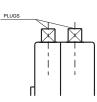


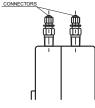
For flanged valve, the gaskets must be assembled between valve and pipe for sealing consideration. In case of end of line service, a blanking flange should be applied.

#### Testing connectors installation (DN65-300)

1.Remove the plugs.

2.CCW Wrap the parts on valve for 6-8 circles by PTFE tape, assemble and tighten the testing connectors, 5-20Nm torque is suggested.





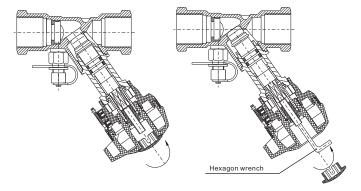
#### **CAUTION:**

This valve is not intended for fluids containing suspended solids or hazardous fluids.

#### Valve Opening Indication And Regulation

#### DN15-50

All valves operate from close to fully open with 4 complete turns by rotating the handwheel. The "Microset" handwheel indicates the valve setting by means of digits appearing in outer and inner windows. The digit in the outer window indicates tenths of a turn. Flow regulation is achieved by adjusting the valve setting until the required flowrate, as derived from the 'signal' measured across the pressure test valves, is obtained. The 'Microset' handwheel will indicate the final valve setting.



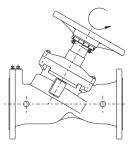
#### **Open Position Lock**

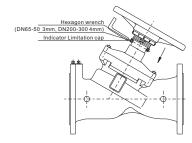
- 1. CCW rotate the hand wheel to the setting position.
- 2. Remove the top cover, tighten the screw by hexagon wrench.
- 3. Reassemble the top cover.

#### DN65-300

DN65-150 valves operate from close to fully open with 8 complete turns by rotating the handwheel, 12 turns for DN200/DN250 and 18 turns for DN300. The digit in the outer window indicates tenths of a turn.

The flow rate maybe derived by the hand wheel setting.





#### **Open Position Lock**

- 1. CCW rotate the hand wheel to the setting position.
- 2. Untighten the screw by hexagon wrench, move the limitation cap to the indicator along the centerline, tighten the screw.

#### **CAUTION:**

#### This valve must not be lifted by holding the handwheel.



# Variable Orifice Double Regulating Valve - Installation Instructions

#### Application

Static balance is achieved by pre-setting of opening position, which could be read by scale on two circles (one for basic circle and another for fine adjustable circle). The valves have two plugs on the valves, two testing connectors in the package to be replaced on jobsite. The valves may be installed in either the supply or the return pipe, and normally on the return pipe.

#### **Inspection And Storage**

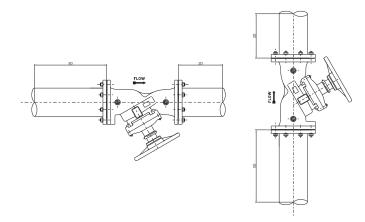
Inspect valves while receiving the valve. Put all valves carefully on the ground. When lifting, the valve should be tightly secured and never lifted by the bronze or stainless steel trim.

The valves should keep clean and dry before installation. If storage period more than six months, the surfaces of the seat (when provided) should be coated with a thin film of FDA approved grease. Do not expose rubber seat to sunlight or ozone.

#### Installation

The flow arrow on the valve must be the same to the flow direction in the pipe system.

The valve must be installed in a run of pipe of the same nominal size. All valves are recommended to be installed as fig below. To ensure flow measurement accuracy it is essential that the piping on the inlet and outlet sides is straight and has a minimum length equivalent to 5 diameters at inlet and 2 diameters at outlet as shown. If the valve is located on the outlet from a pump then it is essential that the straight pipe length between pump outlet and valve inlet is a minimum of 10 diameters.



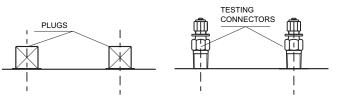
For flanged valve, the gaskets must be assembled between valve and pipe for sealing consideration. In case of end of line service, a blanking flange should be applied.

# **CAUTION:**

This valve is not intended for fluids containing suspended solids or hazardous fluids.

#### Testing connectors installation (DN65-300)

- 1. Remove the plugs.
- 2. CCW Wrap the parts on valve for 6-8 circles by PTFE tape, assemble and tighten the testing connectors, 5-20Nm torque is suggested.

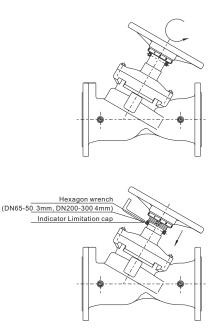


#### Valve Opening Indication And Regulation

#### DN65-300

DN65-150 valves operate from close to fully open with 8 complete turns by rotating the handwheel, 12 turns for DN200/DN250 and 18 turns for DN300. The digit in the outer window indicates tenths of a turn.

The flow rate maybe derived by the hand wheel setting.



#### **Open Position Lock**

- 1. CCW rotate the hand wheel to the setting position.
- 2. Untighten the screw by hexagon wrench, move the limitation cap to the indicator along the centerline, tighten the screw.

# **CAUTION:**

This valve must not be lifted by holding the handwheel.



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# **CALA** Regulating Systems

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For any specific application, users are kindly requested to contact GALA for technical advice, or to carry out their own study and evaluation for providing suitability of the products to such an application. Failure to follow this request could result I property damage and/or personal injury, for which we shall not be liable.

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