

2-Way Control Valve Type H1FBE and H1FBE HV

with SC Pneumatic Actuator and PPL or PS-2 Positioners

Cast Steel, Single Seat Balanced, PN 25, DN 200-300, Flanged Ends

O-2.4.04-A

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TECHNICAL DATA

Valve size	DN 200/8" DN 250/10" DN 300/12"
Valve design	Linear
Max working temperature	225°C/437°F
Materials	
Valve body/cover	Cast Steel P240GH
Cone/seat/shaft	Stainless steel
Gasket	TFM and PVMQ
	Graphite metal
Bolts/nuts	Stainless steel A2-70
Color	
Valve	RAL7016
Protection shield	RAL6018
Flange drilled according to:	EN 1092-1 PN 25/363 psi ANSI 150
Counter flanges	JIS 5K, JIS 10K DIN2635
Kvs-value (M³/h)	DN 200/8" 725 M ³ /h DN 250/10" 1,000 M ³ /h DN 300/12" 1,500 M ³ /h
Flow characteristic	Up to 0.01% of Kvs Equal percentage + linear
Regulating capability	kvs/kvr > 50

Accessories

- PNEUMATIC POSITIONER PPL (See data sheet O-6.6.01)
- PNEUMATIC POSITIONER EPL (See data sheet O-6.6.02)
- SMART POSITIONER PS-2 (See data sheet O-6.9.01)
- FILTER REGULATOR AW20K (See data sheet O-6.8.01)

Subject to change without notice.

APPLICATIONS

Control valves type H1FBE and H1FBE HV are designed for regulating steam hot water systems and liquid medias other than water.

The valves are used in conjunction with our temperature or pressure regulators for controlling industrial processes, municipal or domestic heating systems and marine installations.

Control valves type H1FBE HV are equipped with an additional cooling unit located between the valve and pneumatic actuator. This allows the system to be used in high ambient temperature environments. It also protects additional equipment such as positioners, filter regulators etc. from over-heating and prevents damage caused as a result.

DESIGN

The valve components - spindle, seat and cone - are made of stainless steel. The valve body is made of cast steel GP240GH with flanges drilled according to EN 1092-1. The leakage rate is 0.01%.

FUNCTION

Pressure on the spindle causes the valve to close.

The steam valve is based on a "balancing plug" design.

This means that a low and constant actuating force is necessary to operate the valve over all pressure ranges (0 – 25 Bar/0-363 psi)

FEATURES

- 2-way steam valve with linear pneumatic actuator type SC
- Manual override operation
- Linear - equal percentage flow characteristic
- For high flow applications
- For control devices such as PPL, EPL and PS-2

FUNCTION continued

Pneumatic actuator SC (Spring Close) means that springs close the valve cone in case of air failure.

The pneumatic actuator contains a manual override function.

The manual override should be operated as follows:

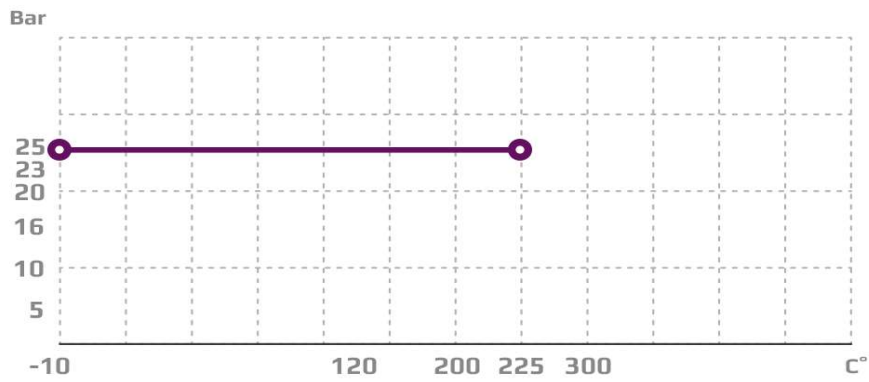
AIR PRESSURE MUST BE DISCONNECTED WHEN USING THE MANUAL OVERRIDE. BEFORE CHANGING FROM MANUAL CONTROL TO AUTOMATIC MODE, THE MANUAL OVERRIDE MUST BE SET TO MINIMUM (CLOSE) POSITION.

OPTIONS

- The protection shield of the pneumatic actuators can be supplied without air ventilation holes. This allows the system to be used in rugged environments.
- Pneumatic 3/2 WAY VALVE – AUTO/MANUAL SWITCH

PRESSURE/TEMPERATURE DIAGRAM

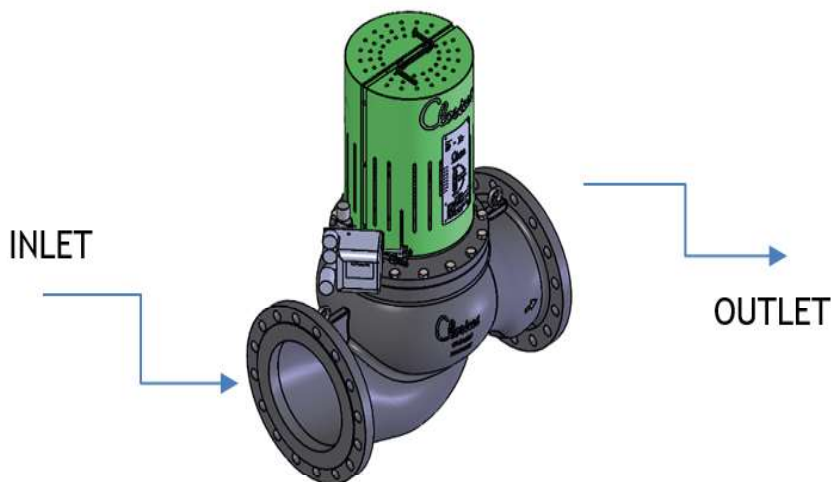
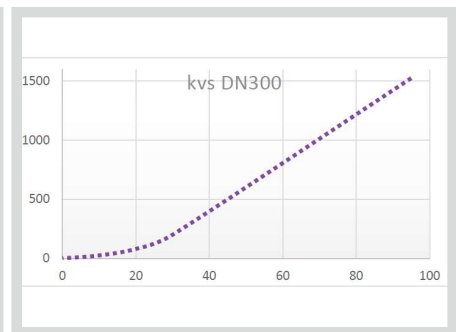
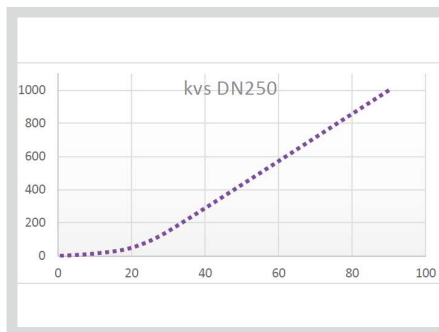
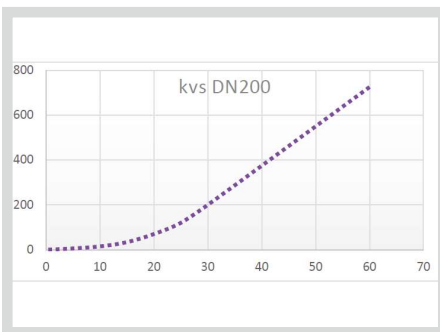
According to DIN 2401



MOUNTING

The valve can be installed both vertically and horizontally.

CHARACTERISTICS



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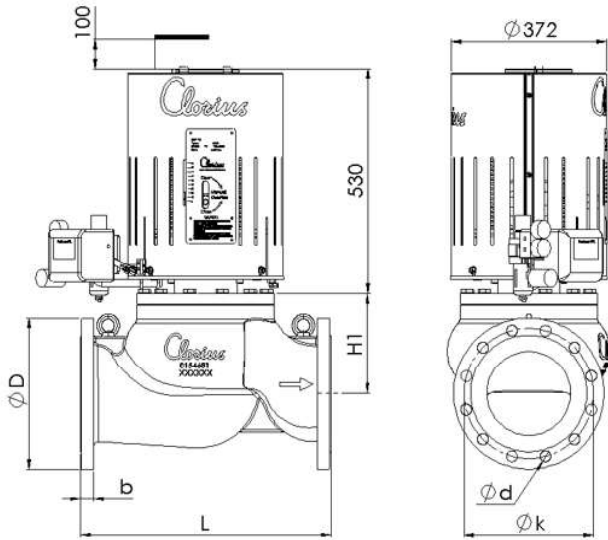
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DIMENSION SKETCH

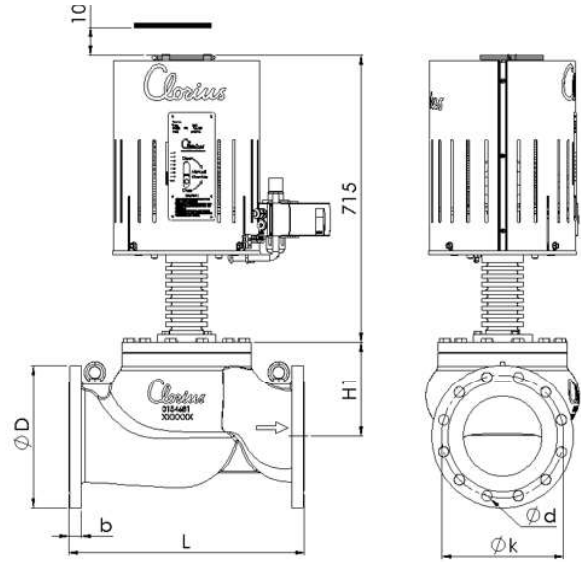
DIMENSIONS IN MM

Control valve H1FBE with pneumatic actuator and positioner



DIMENSIONS IN MM

Control valve H1FBE HV with pneumatic actuator, positioner and cooling unit



Size	Norm	L (mm)	L (inch)	H1 (mm)	H1 (inch)	D (dia.) (mm)	D (dia.) (inch)	b (mm)	b (inch)	k (dia.) (mm)	k (dia.) (inch)	d (mm/inch) dia.
DN 200	EN1092-1 PN25	600	24	238	9.3	360	14	30	1	310	12	12 x 026/1
	ANSI150	600	24	238	9.3	343	13.5	30	1	298	12	8 x 022/0.8
	JIS 5K	600	24	238	9.3	320	12.5	30	1	280	11	8 x 023/0.9
	JIS 10K	600	24	238	9.3	320	12.5	30	1	290	11	12 x 023/09
DN 250	EN1092-1 PN25	730	29	227	8.9	425	17	32	1.3	370	14.5	12 x 030/1
	ANSI150	730	29	227	8.9	406	16	32	1.3	362	14	12 x 025/0.9
	JIS 5K	730	29	227	8.9	385	15	32	1.3	345	13.5	12 x 023/0.9
	JIS 10K	730	29	227	8.9	400	16	32	1.3	355	14	12 x 025/0.9
DN 300	EN1092-1 PN25	850	33	301	11.8	485	19	32	1.3	430	17	16 x 030/1
	ANSI150	850	33	301	11.8	483	19	32	1.3	432	17	12 x 025/0.9
	JIS 5K	850	33	301	11.8	430	17	32	1.3	390	15	12 x 023/09
	JIS 10K	850	33	301	11.8	445	17.5	32	1.3	400	16	16 x 025/0.9

SPECIFICATION

Type	Opening mm/inch	k_{vs} rating m ³ /h	Lifting height mm/inch	Weight kg/lbs
DN 200 H1FBE	200/8	725	75/3	220/485 lbs
DN 200 H1FBE HV	200/8	725	75/3	225/496 lbs
DN 250 H1FBE	250/10	1,000	90/3.5	258/568 lbs
DN 250 H1FBE HV	250/10	1,000	90/3.5	263/579 lbs
DN 300 H1FBE	300/12	1,500	95/3.7	320/705 lbs
DN 300 H1FBE HV	300/12	1,500	95/3.7	320/705 lbs

ITEM NUMBERS

for standard Clorius Controls kits

Item no.	Description	Material	Pressure
1-7511750	VALVE DN 200 H1FBE PN 25 with SC pneumatic actuator and positioner PPL	GP240GH	PN 25/363 psi
1-7511752	VALVE DN 200 H1FBE PN 25 with SC pneumatic actuator and positioner PS-2	GP240GH	PN 25/363 psi
1-7511754	VALVE DN 200 H1FBE HV PN 25 with SC pneumatic actuator and positioner PPL	GP240GH	PN 25/363 psi
1-7511756	VALVE DN 200 H1FBE HV PN 25 with SC pneumatic actuator and positioner PS-2	GP240GH	PN 25/363 psi
1-7511760	VALVE DN 250 H1FBE PN 25 with SC pneumatic actuator and positioner PPL	GP240GH	PN 25/363 psi
1-7511762	VALVE DN 250 H1FBE PN 25 with SC pneumatic actuator and positioner PS-2	GP240GH	PN 25/363 psi
1-7511764	VALVE DN 250 H1FBE HV PN 25 with SC pneumatic actuator and positioner PPL	GP240GH	PN 25/363 psi
1-7511766	VALVE DN 250 H1FBE HV PN 25 with SC pneumatic actuator and positioner PS-2	GP240GH	PN 25/363 psi
1-7511770	VALVE DN 300 H1FBE PN 25 with SC pneumatic actuator and positioner PPL	GP240GH	PN 25/363 psi
1-7511772	VALVE DN 300 H1FBE PN 25 with SC pneumatic actuator and positioner PS-2	GP240GH	PN 25/363 psi
1-7511774	VALVE DN 300 H1FBE HV PN 25 with SC pneumatic actuator and positioner PPL	GP240GH	PN 25/363 psi
1-7511776	VALVE DN 300 H1FBE HV PN 25 with SC pneumatic actuator and positioner PS-2	GP240GH	PN 25/363 psi