→ Series 430

430

Overflow and pressure control valves made of stainless steel, straightway form, with threaded connections –externally adjustable–



SUITABLE FOR

Liquids	neutral and non-neutral	
Air, gases and vapours	neutral and non-neutral	

EXAMPLES OF USE

For the protection of:
- pumps against overloading in closed circuits for neutral / non-neutral, non-sticking liquids

For the control of:
- systems under pressure for air, neutral / non-neutral gases and vapours

- test rig construction
- process equipment construction
- laboratories
- mechanical engineering
- secondary areas in the food-, beverage-, pharmaceutical- and cosmetics-industries

MATERIAL



SPECIFICATION



1/2“ – 2“



– 10°C to + 95°C



0,5 – 10 bar

APPROVALS

European Pressure Equipment Directive

GOST-R

Requirements

PED 97/23/EC

Classification society

Germanischer Lloyd	GL
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Bureau Veritas	BV

MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Stainless steel	1.4408	CF8M
Outlet body	Stainless steel	1.4408	CF8M
Internal parts	Stainless steel	1.4408	CF8M
	Stainless steel	1.4404	316 L
Valve seat	Stainless steel	1.4404	316 L
Spring	Spring steel with anti-rust protection	1.1200	ASTM A228

VALVE VERSION

m	with diaphragm	High-quality, heat-resistant moulded elastomere, fabric-reinforced diaphragm. Valves in straightway form, closed version. Can be adjusted under operating conditions without medium escaping into the atmosphere. Adjustment can be directly read-off an optional pressure gauge (accessory). Optimal control response and large flow volumes even in cases of small pressure differences due to diaphragm operating principle.

Complete valve cartridge available as replacement part (order code: 430 cartridge-DN..-seal) can be exchanged without removing the valve.

Valves can be delivered unset within a pressure range or set and sealed at the factory (against surcharge).

MEDIUM

GF	gaseous and liquid	for water and distilled water, neutral and non-sticking liquids, compressed air and neutral gases; optionally with FPM elastomere seals for non-neutral media i.e. oils, fuels, oil-laden compressed air etc.

TYPE OF LIFTING MECHANISM

0	without lifting device

AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	**15**	**20**	**25**	**32**	**40**	**50**
Inlet threaded connection	1/2“ (15)	3/4“ (20)	1“ (25)	1 1/4“ (32)	1 1/2“ (40)	2“ (50)
Outlet threaded connection	1/2“ (15)	3/4“ (20)	1“ (25)	1 1/4“ (32)	1 1/2“ (40)	2“ (50)

TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

BSP-Tm / BSP-Tm	Standard threaded connections	Male thread BSP-T / Male thread BSP-T	DIN EN 10226, ISO 7-1 / DIN EN 10226, ISO 7-1

SEALS

EPDM	Ethylene propylene diene	Elastomere moulded diaphragm and seals approvals according to drinking water directive	–10°C to +95°C
Against surcharge			
FKM	Fluorocarbon	Elastomere moulded diaphragm and seals	–10°C to +95°C

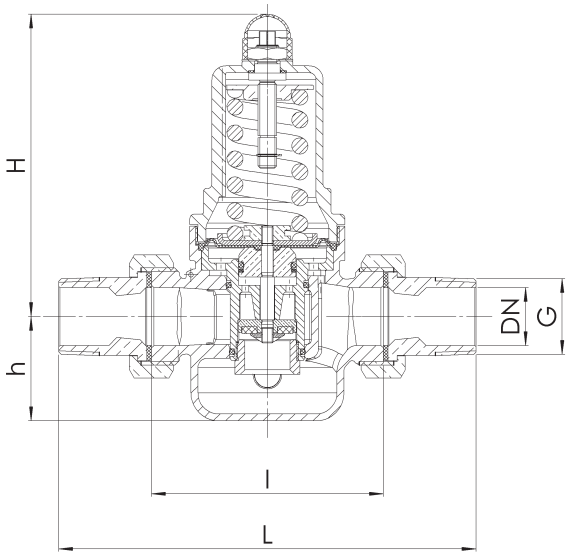
OPTIONS

Against surcharge	
Pressure gauges 36, 39 or 40	Chapter Accessories
Pressure gauges 41, 42 or 43 made of stainless steel	Chapter Accessories

NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 430: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	**DN**	**15**	**20**	**25**	**32**	**40**	**50**
Inlet DIN EN 10226	**G**	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet DIN EN 10226	**G**	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Installation dimensions in mm	**L**	142	158	180	193	226	252
	l	80	90	100	105	130	140
	H	102	102	130	130	165	165
	h	33	33	45	45	70	70
Weight	**kg**	1,2	1,3	2,3	2,5	5,2	5,7
Set pressure	**bar**	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10
Range of adjustment	**bar**	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10

MAIN DIMENSIONS, INSTALLATION DIMENSIONS



INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Pressure range / set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
430	**m**	**GF**	**0**	*20*	**BSP-T m**	**BSP-T m**	*20*	*20*	*EPDM*		*5,5 - 10*	*5*
430	**m**	**GF**	**0**	*40*	**BSP-T m**	**BSP-T m**	*40*	*40*	*FKM*	*Manometer 39*	*1,5*	*3*
430	**m**	**GF**	**0**		**BSP-T m**	**BSP-T m**						
430	**m**	**GF**	**0**		**BSP-T m**	**BSP-T m**						

In this table you can configure a valve according to your individual requirements (similar to the *example* shown, which should be deleted before you enter your own data). Please complete the table by hand using the abbreviations in this datasheet and then fax it to: +49(0)7141.4889488
Please do not forget to add your personal data so that our sales team can contact you.

Name _____

First Name _____

Company _____

Telephone _____

E-Mail _____

CAPACITY TABLE

Series 430: Kv values at 1 bar overpressure

Nominal diameter DN	15			20			25			32			40			50		
	Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]		
Pressure range bar	0,5-2	1,5-6	5,5-10	1,5-6	0,5-2	5,5-10	0,5-2	1,5-6	5,5-10	1,5-6	0,5-2	5,5-10	0,5-2	1,5-6	5,5-10	1,5-6	0,5-2	5,5-10
Set pressure bar																		
0,5	73			77			189			193			417			445		
1	89			94			231			239			498			537		
1,5	102	103		108	107		264	185		273	196		587	370		624	408	
2	117	119		121	126		303	226		314	238		636	429		683	472	
3		146			153			282			291			506			557	
4		170			176			330			338			543			615	
5		187			194			367			379			625			684	
5,5		195	139		206	157		386	183		394	186		653	375		719	417
6		203	147		216	163		405	194		418	202		708	395		760	443
7			162			178			223			229			400			502
8			179			190			259			264			407			517
9			218			225			285			289			432			564
10			255			261			303			314			465			601

Kv values at 1 bar overpressure

Nominal diameter DN	15			20			25			32			40			50		
	Water [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]		
Pressure range bar	0,5-2	1,5-6	5,5-10	1,5-6	0,5-2	5,5-10	0,5-2	1,5-6	5,5-10	1,5-6	0,5-2	5,5-10	0,5-2	1,5-6	5,5-10	1,5-6	0,5-2	5,5-10
Set pressure bar																		
0,5	2,7			2,9			5,5			6,2			12,4			12,9		
1	2,9			3,3			6,1			6,9			12,9			13,8		
1,5	3,4	3,1		3,6	3,4		6,6	5,6		7,5	6,4		13,2	9,0		14,4	9,4	
2	3,6	3,2		3,9	3,4		6,9	5,7		7,8	6,4		13,5	9,1		14,9	9,4	
3		3,3			3,5			5,9			6,5			9,3			9,5	
4		3,4			3,7			6,1			7,2			9,5			9,9	
5		3,3			3,7			6,2			7,5			9,7			10,2	
5,5		3,0	2,3		3,6	2,7		5,8	3,2		6,9	4,1		10,1	7,2		10,5	7,7
6		2,9	2,4		3,6	2,7		5,4	3,3		6,7	4,2		10,4	7,3		10,9	8,0
7			2,4			2,6			3,9			4,5			7,5			8,1
8			2,4			2,6			3,8			4,4			7,3			7,8
9			2,3			2,5			3,7			4,2			6,9			7,4
10			2,2			2,5			3,6			4,0			6,5			7,1