

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

→ Series 630



■ 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
- de-icing technology
- mechanical engineering
- industrial applications



■ MATERIAL



■ SPECIFICATION



1/2" – 2"



– 10°C to + 95°C



0,5 – 10 bar

■ APPROVALS

European Pressure Equipment Directive

TR ZU 032/2013 - TR ZU 010/2011

Requirements

PED 2014/68/EU

Classification society

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

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Gunmetal	CC499K	CC499K
Outlet body	Gunmetal	CC499K	CC499K
Internal parts	Gunmetal	CC499K	CC499K
	Brass	CW617N	CW617N
Valve seat	Stainless steel	1.4404	316 L
Spring	Spring steel with anti-rust protection	1.1200	ASTM A228

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: 630 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, 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	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet	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
f / f	Version with female thread available in sizes DN15, DN20 and DN25	Female thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1

■ 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

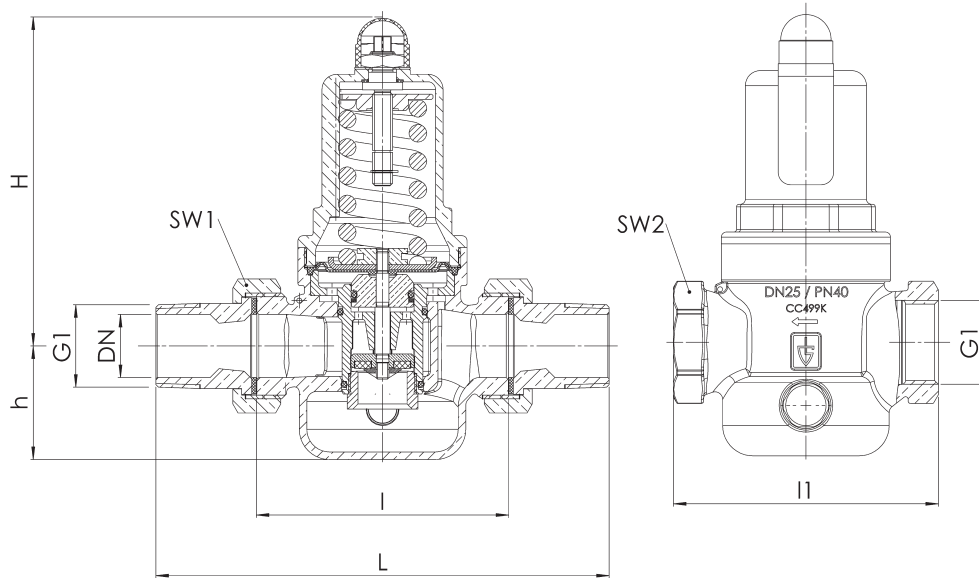
Against surcharge	
Pressure gauges 36, 39 or 40	Chapter Accessories

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 630: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	DN	15	20	25	32	40	50
Inlet DIN EN 10226	G1	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet DIN EN 10226	G1	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
	I	80	90	100	105	130	140
	I1	85	95	105			
	H	102	102	130	130	165	165
	h	33	33	45	45	70	70
	SW1	30	37	46	52	65	75
	SW2	28	35	43	48	57	68
	Weight	kg	1,2	1,4	2,4	2,6	5,5
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	0,5-2	0,5-2	0,5-2	0,5-2	0,5-2
		1,5-6	1,5-6	1,5-6	1,5-6	1,5-6	1,5-6
		5,5-10	5,5-10	5,5-10	5,5-10	5,5-10	5,5-10
Coefficient of flow K_{vs}	m ³ /h	2,1	2,4	5,1	5,5	10,5	11,5

The K_{vs} value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capacity are to be found under section 2.

■ 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				
630	m	GF	0	25	BSP-Tm	BSP-Tm	25	25	FKM		7,0	1
630	m	GF	0	20	f	f	20	20	EPDM		5,5 - 10	2
630	m	GF	0									
630	m	GF	0									

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 630: Kv values at 1 bar overpressure																	
Nominal diameter DN	15			20			25			32			40			50	
	Air [Nm ³ /h]		Air [Nm ³ /h]	Air [Nm ³ /h]		Air [Nm ³ /h]	Air [Nm ³ /h]		Air [Nm ³ /h]	Air [Nm ³ /h]		Air [Nm ³ /h]	Air [Nm ³ /h]		Air [Nm ³ /h]		
Pressure range bar	0,5-2	5,5-10	1,5-6	5,5-10	0,5-2	5,5-10	1,5-6	5,5-10	0,5-2	5,5-10	1,5-6	5,5-10	0,5-2	5,5-10	1,5-6	5,5-10	
	1,5-6	0,5-2	5,5-10	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	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 [m ³ /h]		Water [m ³ /h]	Water [m ³ /h]		Water [m ³ /h]	Water [m ³ /h]		Water [m ³ /h]	Water [m ³ /h]		Water [m ³ /h]	Water [m ³ /h]		Water [m ³ /h]		
Pressure range bar	0,5-2	5,5-10	1,5-6	5,5-10	0,5-2	5,5-10	1,5-6	5,5-10	0,5-2	5,5-10	1,5-6	5,5-10	0,5-2	5,5-10	1,5-6	5,5-10	
	1,5-6	0,5-2	5,5-10	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	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				