Relief / Overflow valve, straightway form
Article 190-RG and 190-RG/V

diameter G 1/2“ up to G 2“

Overflow valve with proportional opening and closing characteristic are used for example in pumping circuits and pipeline systems, in which a constant pressure condition must be ensured.

The relief valves serve as protection of:
- pumps against overloading in closed circuits for neutral / non-neutral, non-sticky liquids.

For regulation in:
- pressure systems for neutral / not neutral gases and steams -depending on the sealing- also for water vapour

The medium can circulate in the bypass line of a pump or pipeline. The preset overflow valves can be adjusted within the spring range.

Connections:
Standard threaded connections
external thread BSP-T DIN EN 10226, ISO 7-1

Optional version with female thread BSP-P DIN EN ISO 228-1
available in sizes G 1/2” (DN 15), G 3/4” (DN 20) and G 1” (DN 25)

The appropriate valve design and sealing must be used according to the application.

CE	DGRL 2014/68/EU
T °C	ambient -10°C ... +60°C
T °C	medium -10°C ... +95°C

Approvals
European Pressure Equipment Directive
TR ZU 032/2013 - TR ZU 010/2011

Valve version:

m	**with diaphragm**	High-quality, heat-resistant moulded elastomerem 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.

Standard seals:

EPDM	**(190-RG)**	Ethylene propylene diene	Elastomere moulded diaphragm and seals approvals according to drinking water directive	-10°C to +95°C
Against surcharge				
FKM	**(190-RG/V)**	Fluorcarbon	Elastomere moulded diaphragm and seals	-10°C to +95°C

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subject technical changes

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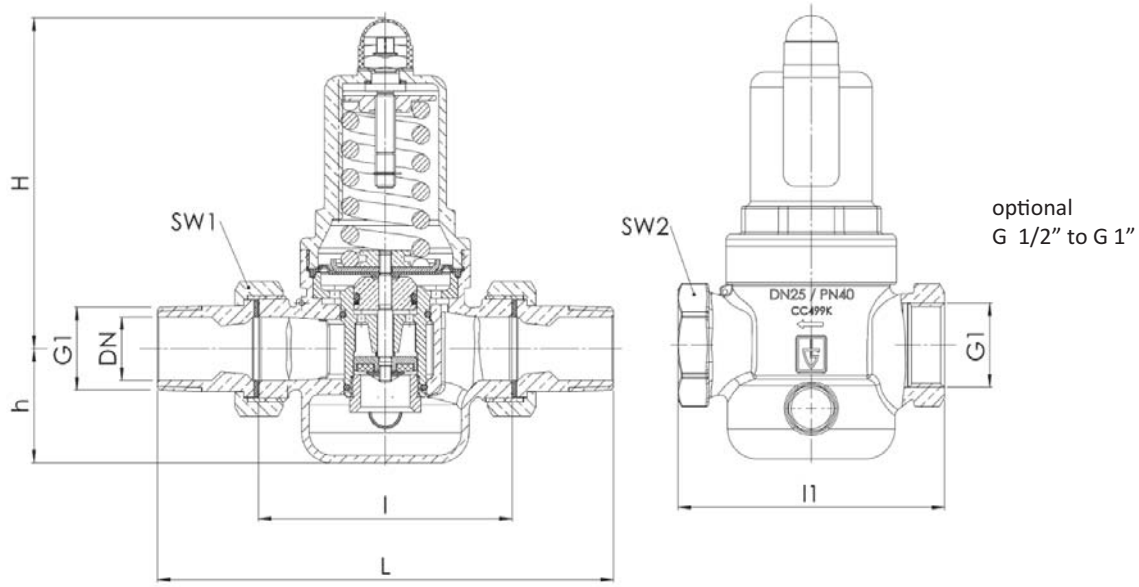

both sides pressure gauge connection G 1/4”

	article number										
diameter G1	190-RG **EPDM-sealing**	190-RG/V **FKM-sealing**	weight (kg)	L (mm)	l (mm)	l1 (mm)	SW1 (mm)	SW2 (mm)	H (mm)	h (mm)	range of adjustment (bar)
G 1/2”	19.1674.1.63	19.1674.1.63-V	1,2	142	80	85	30	28	102	33	
G 3/4”	19.1674.1.65	19.1674.1.65-V	1,4	158	90	95	37	35	102	33	0,5 to 2,0
G 1”	19.1674.1.67	19.1674.1.67-V	2,4	180	100	105	46	43	130	45	1,5 to 6,0
G 1 1/4”	19.1674.1.68	19.1674.1.68-V	2,6	193	105		52		130	45	5,5 to 10,0
G 1 1/2”	19.1674.1.69	19.1674.1.69-V	5,5	226	130		65		165	70	
G 2”	19.1674.1.71	19.1674.1.71-V	6,0	252	140		75		165	70	

Article 190-RG

	190-RG	190-RG/V
description	**material**	**material**
inlet body	red brass CC499K	red brass CC499K
outlet body	red brass CC499K	red brass CC499K
internal parts	brass CW614N red brass CC499K	brass CW614N red brass CC499K
valve seat	stainless steel 1.4404	stainless steel 1.4404
spring	spring steel 1.1200	spring steel 1.1200
sealing	**EPDM**	**FKM (Viton)**
area of application	for neutral media approval acc. to drinking water ordinance	for non-neutral media p. ex. oils fuels, oil-laden compressed air etc.

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Relief / Overflow valve, straightway form
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Performance table: KV-values at 1 bar overpressure:

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	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
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	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
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

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