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# PRESSURE RELIEF VALVE

(or OVERFLOW VALVE)

SPRINGLOADED - MODEL **S3**

## VALVE FEATURES

DN15 to DN100 (DN125 and DN150 consult)

DIN PN25 Nodular Iron GJS400-18-LT (0.7043)  
DIN PN25 Bronze RG10 (EN-1982 CuSn10CC480K)  
DIN PN40 Carbon steel GP240GHN (1.0619)  
DIN PN40 Stainless steel CBM (1.4404)

Stainless steel AISI 316L trim

Top guided standard construction

Connection Flanged EN and ANSI  
On request: Threaded BSP or NPT, BW, SW, €

Shut off capabilities:

- Class IV (metal to metal)
- Class VI (PTFE+GR seat)

On request, PEEK, NBR, EPDM seal, stellite faced seat, €

Full port as standard. Reduced port on request

Setting pressure 0,5 - 20 barg (with different springs)

Max. permissible temperature	0.7043 and 1.0619 1.4408	-10 to 250°C -30 to 250°C
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Seal / Packing / Gaskets	VIRGIN PTFE UP TO 180°C PTFE+GRAPHITE UP TO 220°C
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Special features

Handwheel regulation, special gaskets, Super Duplex construction, bronze construction, €

Approvals

Quality system ISO 9001

Pressure equipment Directive according 2014/68/UE

Atex Directive according 2014/34/UE (pending to include).

Pressure relief valve is used to maintain the pressure upstream of the valve to an adjusted set point.

When upstream pressure rises above a set point, the valve opens proportionally pressure rising.

This series of regulators is suitable for steam, gases (group 1 and 2) and liquids.

A relief pressure valve is not a safety valve, and then if necessary, an overpressure protection must be installed.

## PRESSURE TEMPERATURE RATINGS (according to EN12516-1 and EN 1092-2)

Nominal Pressure	Body material	Services temp.	°C	-10	50	100	150	200	250	300	350
PN25 f Class 150	Nodular Iron (0.7043) EN-GJS400-18	Working pressure	bar	25	25	25	24	23	21	20	17
PN40 f Class 300	Carbon steel GP240GH (1.0619)		bar	40	40	36	35	34	33	30	29
PN40 f Class 300	Stainless steel A351 CF3M (AISI 316L-1.4404)		bar	40	38	33	30	28	26	25	24

	Description	Material		Description	Material
1	Body	Nodular Iron GGG40.3 (1)	19	Regulation stem	Stainless steel A270
		Carbon steel WCB (1)	20	Up support Spring	Zinc plated steel 1.1191
		Stainless steel A351CF3M (316L) (2)	21	Flat gasket	PTFE
2	Seat	Stainless steel AISI 316L	22	O-ring	FKM (or NBR, EPDM)
3	Guide	Stainless steel AISI 316L	23	Bonnet	Stainless steel AISI 316L
4	Seal	PTFE+Graphite / SS AISI 316L	24	Washer	Zinc plated steel A270 (1)
		Or EPDM, NBR, FKM, PEEK, €			Stainless steel A270 (2)
5	Support seal	Stainless steel AISI 316L	25	Isolation gasket	PTFE+GR+SS302
6	Stem	Stainless steel AISI 316L	26	Stem guide	Bronze / SS316L+Ni
7	Bolts	Zinc plated steel A270 (1)	27	Block Pin	A270
		Stainless steel A270 (2)	28	Nut	A270
8	O-ring	FKM (or NBR, EPDM)			
9	Spring cover	Stainless steel A351CF3M (316L) (2)			
10	Regulation Spring	Spring steel painted	110	Handwheel	Steel painted
11	Down support Spring	Zinc plated steel 1.1191	111	Bolt	A270
12	Bearing	PTFE+GR	112	Washer	A270
13	Regulation stem	Stainless steel AISI 316L	113	Regulation stem A	Stainless steel AISI 316L
14	Washer	A270	114	Washer	PTFE
15	Cover cap	Zinc plated steel 1.1191 (1)	115	Cover cap	Zinc plated steel 1.1191 (1)
		Stainless steel AISI 316L (2)			Stainless steel AISI 316L (2)
16	O-ring	FKM (or NBR, EPDM)	116	Isolation gasket	PTFE+GR+SS302
17	O-ring	FKM (or NBR, EPDM)			
18	Block Pin	Steel			

Recommended spare parts

HANDWHEEL COMPONENTS

**VALVE PARTS**

## HANDWHEEL OPTION

## VALVE DIMENSIONS, WEIGHT AND Kv VALUES

DN	15	20	25	32	40	50	65	80	100
Kv (m <sup>3</sup> /h)	3.5	5	9	15	22	35	60	85	130
Cv (gpm)	4	5.8	10.4	17.5	25	41	70	100	152
A (EN 558-1) (mm)	130	150	160	180	200	230	290	310	350
A ANSI150 (mm) (inches)	•	•	184 7,25...	-	222 8,75...	254 10...	276 10,86...	298.5 11,75...	352.5 13,88...
A ANSI300 (mm) (inches)	•	•	197 7,76...	-	235 9,25...	267 10,51...	292 11,5...	317.5 12,50...	368 14,49...
L (sealing cap) (mm)	260	260	267	267	321	321	450	450	520
L (Handwheel) (mm)									
Weight (kg)	10	10	12	13	16	18	30	40	50

- Available under request

<p>Flanged type</p>	<p>Threaded type</p>	<p>The pressure relief valve S3 model works with direct action principle.</p> <p>When the force resulting from the upstream pressure <math>p_1</math> exceeds the spring force adjusted at the set point springs, the valve opens proportionally to the change in pressure.</p> <p>The spring force is adjustable at the set point nut (item 13).</p> <p>Operating</p>
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## TYPICAL INSTALLATION S3 RELIEF VALVE