

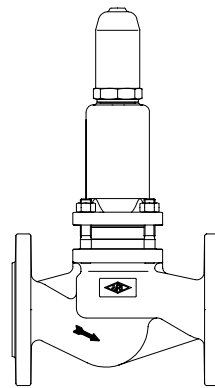
Pressure regulating valve, spring loaded  
DN 15 - 100

**ARI-PRESO® - Pressure regulating valve**  
**Straight through with flanges**

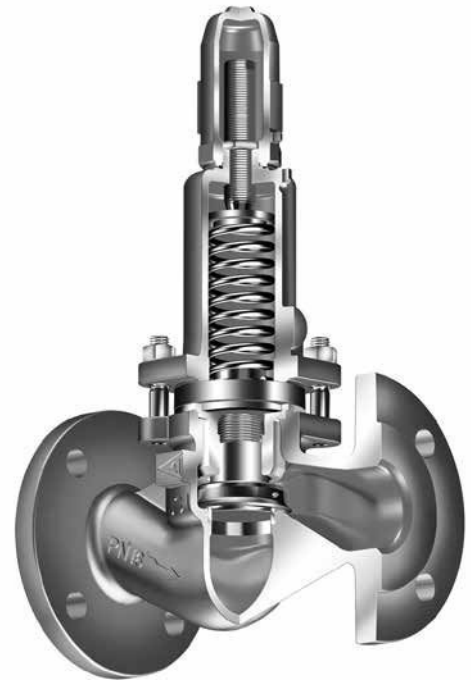
- Spring loaded
- TA - Luft

Grey cast iron  
SG iron  
Cast steel  
Stainless steel

**Fig. 753**



Page 2



**Fig. 753**

**Features:**

- Spring loaded
- Standard bellows seal
- Compact design
- Regulating plug
- Shaft plug guide
- Pressure range:
  - 0,5 - 1,5 bar
  - 1,0 - 3,0 bar
  - 2,0 - 5,0 bar
  - 4,0 - 10,0 bar
- Exact and easy adjustment
- Proportional flow characteristic
- Maintenance-free

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## Pressure regulating valve - straight through with flanges - spring loaded (Grey cast iron, SG iron, Cast steel, Stainless steel)

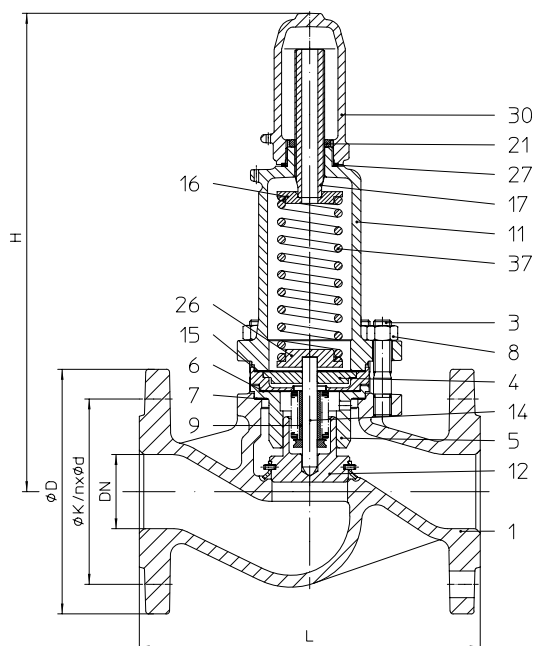


Figure	Nominal pressure	Material	Nominal diameter
12.753	PN 16	EN-JL1040	DN15-100
22.753	PN 16	EN-JS1049	DN15-100
32.753	PN 16	1.0619+N	DN15-100
52.753	PN 16	1.4408	DN15-100

Test:	• TA - Luft
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Parts						
Pos.	Sp.p.	Description	Fig. 12.753	Fig. 22.753	Fig. 32.753	Fig. 52.753
1		Body	EN-JL1040, EN-GJL-250	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
1.2		Seat	X20Cr13+QZ, 1.4021+QT			--
3		Stud	25CrMo4, 1.7218			A4-70
4		Stem guide	X20Cr13+QZ, 1.4021+QT			
5		Guide housing	X20Cr13+QZ, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
6	x	Gasket	Pure graphite (CrNi laminated with graphite)			
7	x	Gasket	Pure graphite (CrNi laminated with graphite)			
8		Hexagon nut	C35E, 1.1181			A4
9		Travel limiter ring	≥ DN40: X6CrNiMoTi17-12-2, 1.4571			
11		Bonnet	EN-JS1049, EN-GJS-400-18U-LT			GX5CrNiMo19-11-2, 1.4408
12	x	Plug unit	X20Cr13+QZ, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
14	x	Stem unit	X6CrNiMoTi17-12-2, 1.4571			
15	x	Gasket	Pure graphite (CrNi laminated with graphite)			
16		Spring plate (top)	DN15-20: X6CrNiMoTi17-12-2, ≥ DN25: 1.4571 S235JR, 1.0037			X6CrNiMoTi17-12-2, 1.4571
17		Adjusting screw	X20Cr13+QZ, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
21		Lock nut	11SMn30+C, 1.0715+C			X6CrNiMoTi17-12-2, 1.4571
26		Spring plate (bottom)	DN15-20: X6CrNiMoTi17-12-2, ≥ DN25: 1.4571 S235JR, 1.0037			X6CrNiMoTi17-12-2, 1.4571
27	x	Sealing ring	CuFA			X6CrNiMoTi17-12-2, 1.4571
30		Cap, gastight	EN-JS1049, EN-GJS-400-18U-LT			GX5CrNiMo19-11-2, 1.4408
37	x	Compression spring	FDSiCr			
L Spare parts						

DN	15	20	25	32	40	50	65	80	100
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Face-to-face dimension FTF series 1 according to DIN EN 558		Standard-flange dimensions refer to page 4								
L	(mm)	130	150	160	180	200	230	290	310	350
H	(mm)	230	230	290	300	325	330	400	440	500

Dimensions										
Kvs-value	(m³/h)	2	2,5	3	5	10	20	22	29	45
Seat-Ø	(mm)	21	21	27	31	41	51	66	81	101
Travel	(mm)	2	2	2,5	2,5	4	5,5	7	8	10
Leakage rate		IV acc. to DIN EN 1349 (≤ 0,01% from the nominal flow)								

Weights										
12./22./32./52.753	(kg)	3,6	4,1	6,6	7,7	10,4	12,9	20,2	28,9	43,7

Information / restriction of technical rules need to be observed!  
 Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).  
 ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.  
 A production permission acc. to TRB 801 No. 45 is available (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)  
 The engineer, designing a system or a plant, is responsible for the selection of the correct valve.  
 Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

## Application

The pressure regulating valve PRESO is a spring loaded differential pressure-control valve. The main applications are:

- Pump protection: PRESO inserted parallel to the pump, this secures a minimum flow.
- Application in bypass lines from users, e.g. heat exchanger in thermal oil systems to sustain a minimum flow.
- Parallel to piping systems to avoid to higher differential pressures.
- Pressure maintaining valve to avoid the flashing in condensate systems.

Productkey	Article code	Type	Material	Pressure	Connection	Nominal diameter	Feature1
28102000001	1275300652	ARI-PRESO	EN-3.1040	PN 16	flanged	DN 65	Kvs-value:22,0 Desig...
28102000007	2275300652	ARI-PRESO	EN-351049	PN 16	flanged	DN 65	Kvs-value:22,0 Desig...
28102000011	3275300652	ARI-PRESO	1.0619+N	PN 16	flanged	DN 65	Kvs-value:22,0 Desig...
28102000016	5275300652	ARI-PRESO	1.4408	PN 16	flanged	DN 65	Kvs-value:22,0 Desig...



## myValve - Valve Sizing-Program

### Contents:

#### Module ARI-Pressure regulating valves PRESO-Calcuation

- Sizing (calculation of valve-size with given temperature, flow, set pressure, opening pressure and set pressure)

### Media:

#### Integrated media-data bank (more than 160 media) with conditions:

- Vapours / gases
- Steam (saturated and superheated)
- Liquids

### Special features:

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number
- Direct output or calculation and product data in PDF format
- Product data could be taken for a direct order
- SI- and ANSI-units with direct conversion to another data bank
- Settings with over pressure or absolute pressure
- All ARI Pressure regulating valves are integrated in a data bank
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary)

### System Requirements:

Windows operating systems, Linux, etc.

max. permissible back pressure p2		(Observe pressure-temperature-limits)								
DN		15	20	25	32	40	50	65	80	100
Setting range $\Delta p_0$ (bar)	Set point $\Delta p_0$ (bar)	max. permissible back pressure p2 (barg)								
0,5 - 1,5	0,5	4,5	4,5	6,9	6,4	6,6	9,5	4,9	6,7	5,9
	1	3	3	5,4	4,4	4,7	6,5	3,3	4,9	4,2
	1,5	1,5	1,5	3,9	2,4	2,7	3,5	1,7	3,1	2,5
1 - 3	1	8	8	10,6	11,2	9,9	14	7	7,7	6,8
	2	5	5	7,6	7,2	6	10,4	3,8	4,2	3,5
	3	2	2	4,6	3,2	2	6,8	0,5	0,6	0,1
2 - 5	2	8	8	12	12	12	12	11,3	10,8	10,2
	3	5,8	5,8	9,3	9,2	8,4	9,8	8,1	7,2	6,8
	4	3,7	3,7	6,6	6,5	4,9	7,7	4,8	3,7	3,5
	5	1,5	1,5	3,9	3,7	1,3	5,5	1,6	0,1	0,1
4 - 10	4	10	10	8	8	8	8	8	8	8
	6	7	7	5,7	5,7	5,7	5,7	5,7	5,7	5,7
	8	4	4	3,3	3,3	3,3	3,3	3,3	3,3	3,3
	10	1	1	1	1	1	1	1	1	1

$\Delta p_0$  = Differential pressure (Set pressure  $p_{10}$  – Back pressure  $p_2$ )

DN	15	20	25	32	40	50	65	80	100
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Standard-flange dimensions		Flanges acc. to DIN EN 1092-1/-2 (Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545)									
PN16	$\varnothing D$	(mm)	95	105	115	140	150	165	185	200	220
	$\varnothing K$	(mm)	65	75	85	100	110	125	145	160	180
	n x $\varnothing d$	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	4x18 <sup>1)</sup>	8x18	8x18

<sup>1)</sup> also with 8 bore holes acc. to DIN EN 1092-1/-2 possible.

Pressure-temperature-ratings		Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.									
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acc. to DIN EN 1092-2		-60°C to <-10°C <sup>1)</sup>	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
EN-JL1040	16 (bar)	--	16	14,4	12,8	11,2	9,6	--	--	--
EN-JS1049	16 (bar)	on request	16	15,5	14,7	13,9	12,8	11,2	--	--

acc. to manufacturers standard		-60°C to <-10°C <sup>1)</sup>	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	16 (bar)	12	16	15,3	14	13	11	10,2	9,5	5,2

acc. to DIN EN 1092-1		-60°C to <-10°C <sup>1)</sup>	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.4408	16 (bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9	--

<sup>1)</sup> Studs and nuts made of A4-70 (at temperatures below -10°C)

**Please indicate when ordering:**

- Figure-No.
- Nominal diameter
- Nominal pressure
- Body material
- Plug design
- Kvs-value
- Setting range
- Special design / accessories

**Example:**

Figure 22.753; Nominal diameter DN50; Nominal pressure PN16; Body material EN-JS1049; metal seat; Kvs 20; Setting range 1 - 3 bar.