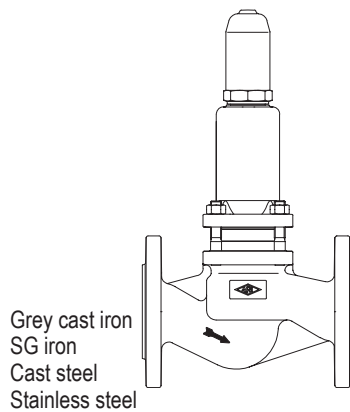


Pressure regulating valve, spring loaded  
DN 15 - 100

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

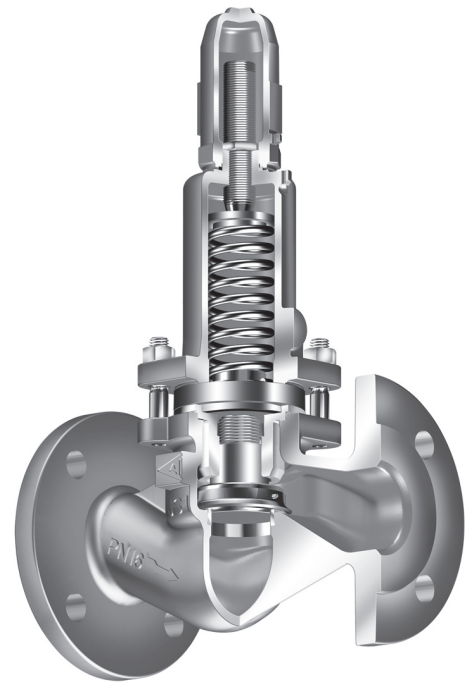
- Spring loaded
- TA - Luft TÜV-Test-No. 922-9241371



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

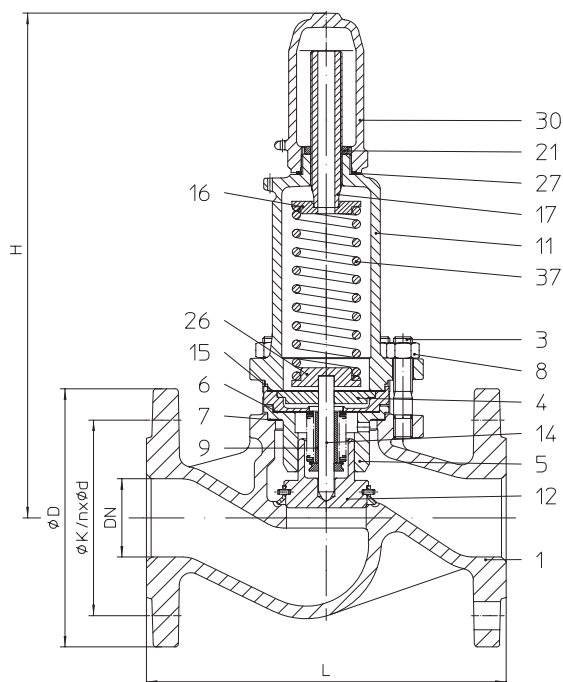
**Pressure regulating valve - straight through with flanges - spring loaded (Grey cast iron, SG iron, Cast steel, Stainless steel)**


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

• TA - Luft TÜV-Test-No. 922-9241371

**Selection of possible applications**

Industrial installations, processing technology, plant manufacturing, etc.  
(other applications on request)

**Selection of possible flow media**

Liquids, gas and vapours, steam, etc.  
(other flow media on request)

**Parts**

Pos.	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	Studs	25CrMo4, 1.7218			A4-70
4	Stem guide	X20Cr13+QZ, 1.4021+QT			
5	Guide housing	X20Cr13+QZ, 1.4021+QT			
6	Gasket *	Pure graphite (CrNi laminated with graphite)			
7	Gasket *	Pure graphite (CrNi laminated with graphite)			
8	Hexagon nut	C35E, 1.1181			A4
9	Lift limitation	≥ DN40: X6CrNiMoTi17-12-2, 1.4571			
11	Bonnet	EN-JL1040, EN-GJL-250	EN-JS1049, EN-GJS-400-18U-LT	GX5CrNiMo19-11-2, 1.4408	
12	Plug unit *	X20Cr13+QZ, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
14	Stem unit *	X6CrNiMoTi17-12-2, 1.4571			
15	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			
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
30	Cap, gastight	EN-JS1049, EN-GJS-400-18U-LT			GX5CrNiMo19-11-2, 1.4408
37	Spring *	FDSiCr			

\* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

A production allowance acc. to TRB 801 No. 45 exists (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.

**Dimensions**

DN	(mm)	15	20	25	32	40	50	65	80	100
L	(mm)	130	150	160	180	200	230	290	310	350
H	(mm)	230	230	290	300	325	330	400	440	500
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)								

Face-to-face dimension FTF series 1 according to DIN EN 558

**Weights**

DN	(mm)	15	20	25	32	40	50	65	80	100
12./22./32./52.753	(kg)	3,6	4,1	6,6	7,7	10,4	12,9	20,2	28,9	43,7

### 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.

Produktkey	Article code	Type	Material	Pressure	Connection	Nominal diameter	Feature1
28102000001	1275300652	ARI-PRESO	EN-JL1040	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 - Calculator

#### Contents:

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

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

#### Media:

#### Integrated media-databank (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 databank
- Settings with over pressure or absolute pressure
- All ARI Pressure regulating valves are integrated in a databank
- 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-ratings)**

DN	(mm)	15	20	25	32	40	50	65	80	100
<b>Pressure range <math>\Delta p_0</math></b>	<b>Set point <math>\Delta p_0</math></b>	<b>max. permissible back pressure p2</b>								
(bar)	(bar)	(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  $p_2$ )

**Standard-flange dimensions**

Flanges acc. to DIN EN 1092-1/-2 (Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545)

DN		(mm)	15	20	25	32	40	50	65	80	100
PN16	$\varnothing D$	(mm)	95	105	115	140	150	165	185	200	220
PN16	$\varnothing K$	(mm)	65	75	85	100	110	125	145	160	180
PN16	$n \times \varnothing d$	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18

**Pressure-temperature-ratings acc. to DIN EN 1092-2**

Material			-60°C to <-10°C*	-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	--	--

**Pressure-temperature-ratings acc. to manufacturers standard**

Material			-60°C to <-10°C*	-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

**Pressure-temperature-ratings acc. to DIN EN 1092-1**

Material			-60°C to <-10°C*	-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	--

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

\* 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
- Pressure range
- Special design / accessories

**Example:**

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

Dimensions in mm Weights in kg Pressures in barg (gauge) $1 \text{ bar} \triangleq 10^5 \text{ Pa} \triangleq 0,1 \text{ MPa}$ Kvs in $\text{m}^3/\text{h}$
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