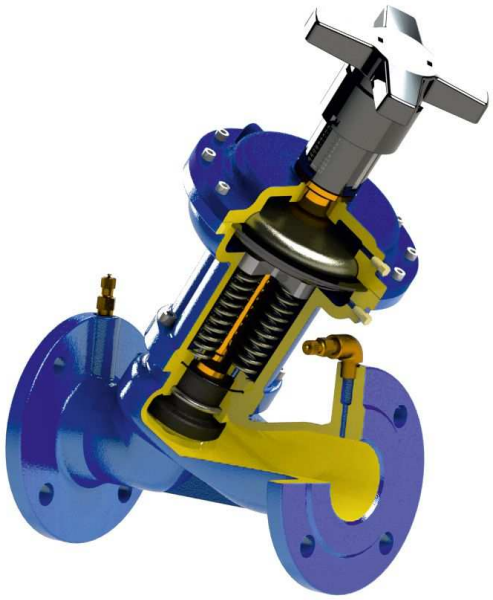
FIG.224

DIFFERENTIAL PRESSURE REGULATING VALVE zSTA



Body material	Nominal pressure	Nominal diameter	Max. temperature
A Grey cast iron	**C** 16 bar	DN **65-150**	120°C

CE according to the pressure equipment directive 2014/68/UE
CE marking for DN≥065

FEATURES

- compact construction
- environment - friendly
- balancing disc
- adjustable differential pressure
- measurement differential pressure
- movement of the locking function
- ranges of settings 20-70 kPa, 40-160 kPa
- face to face dimension according to EN558 series 1
- tests according EN-12266-1

APPLICATION

industries: HEATING; REFRIGERATION AND AIR CONDITIONING

media: INDUSTRIAL WATER; COMPRESSED AIR; NEUTRAL FLUIDS

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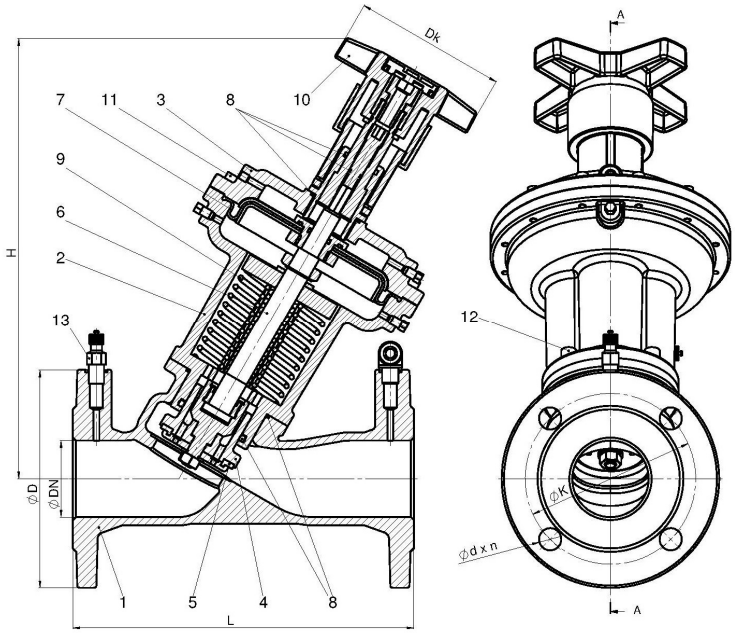
FIG.224

MATERIALS, DIMENSIONS



	Body material	A
	Type	**56 66**
1	Body	EN-GJL-250 5.1301 (ex. JL1040)
2,3	Top and bottom cover	EN-GJL-250 5.1301 (ex. JL1040)
4	Disc	PPS
5	Seal of the disc	EPDM
6	Stem	CuZn36Pb2As
7	Diaphragm	EPDM
8	O-ring	EPDM
9	Spring	X17CrNi16-2
10	Hand wheel	Polyamide PA 6.6
11, 12	Screw	8.8 A2A
13	Measuring nipples $G^1/_4$	CuZn36Pb2As
Max. temperature		**120°C**

DN	**65**	**80**	**100**	**125**	**150**
L (mm)	290	310	350	400	480
H (mm)	385	390	405	425	440
Dk (mm)	160	160	160	160	160
Weight (kg)	24,5	28,5	35,0	45,5	58,5

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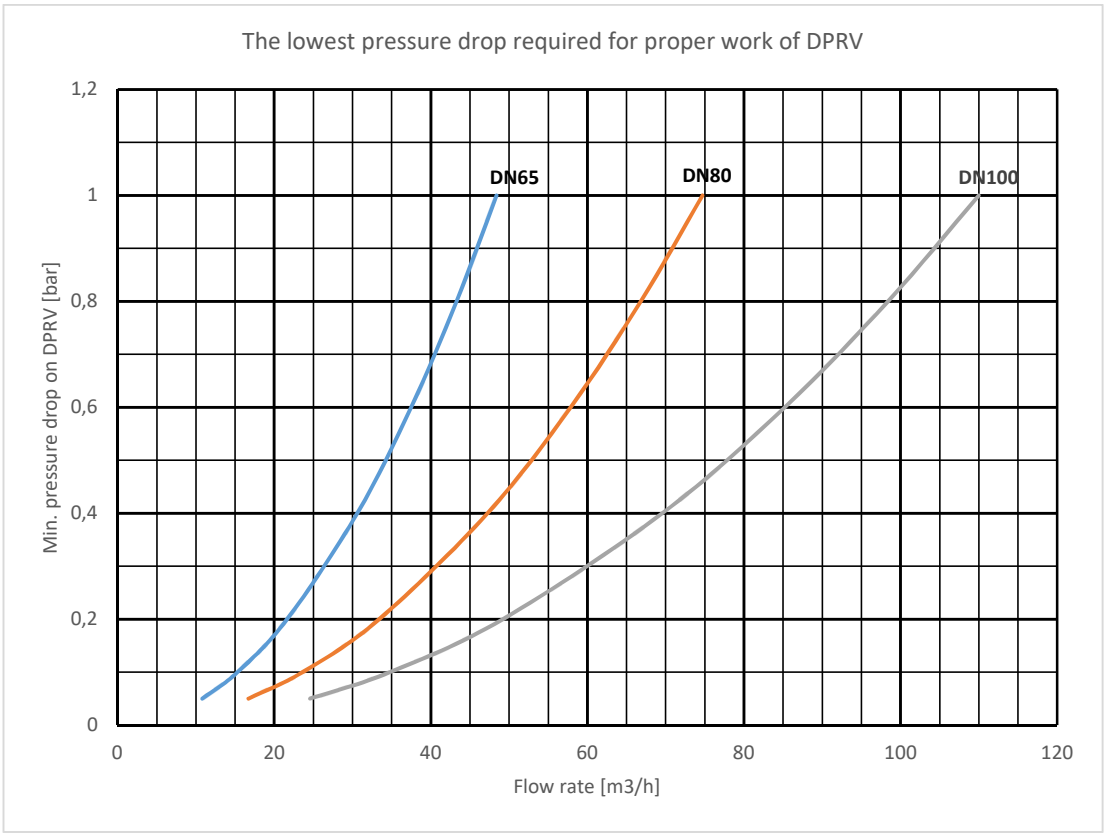
PRESSURE-TEMPERATURE RATINGS

Acc. EN 1092-2	PN		-10°C ÷ 120°C
EN-GJL-250	16	bar	16

FLANGE DIMENSIONS ACC. PN-EN 1092-2

DN		65	80	100	125	150
PN16	D (mm)	185	200	220	250	285
	K (mm)	145	160	180	210	240
	n x d (mm)	4x19	8x19	8x19	8x19	8x23

SELECTION AND RANGE OF DPRV



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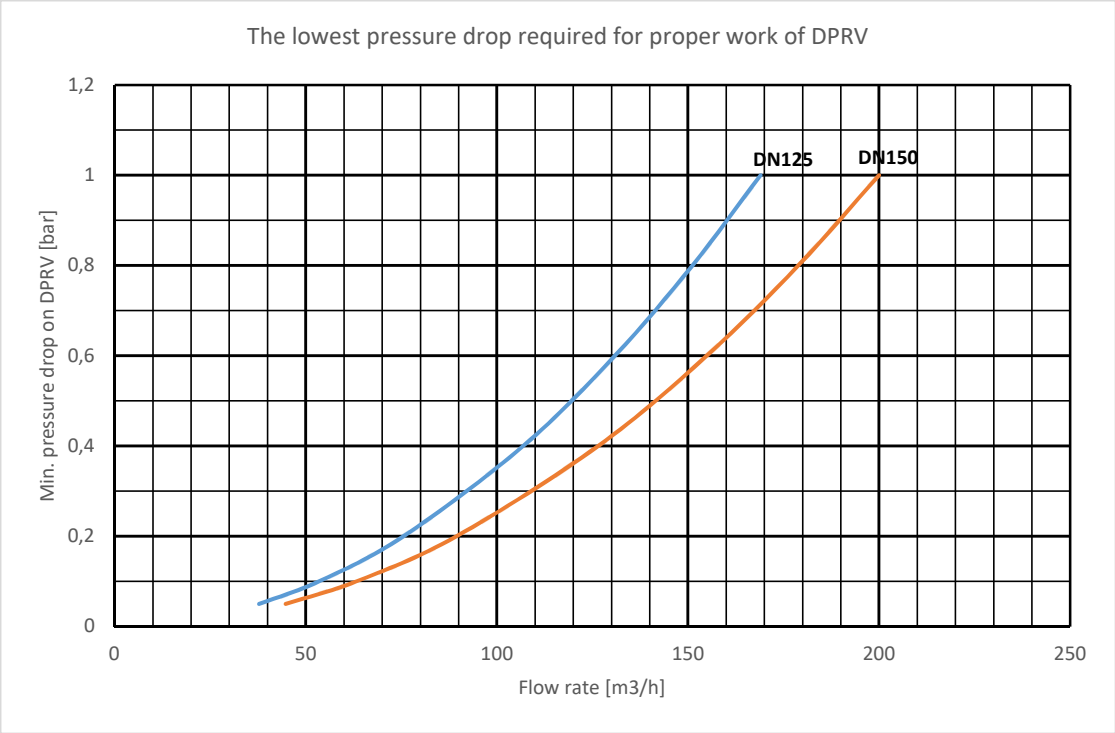
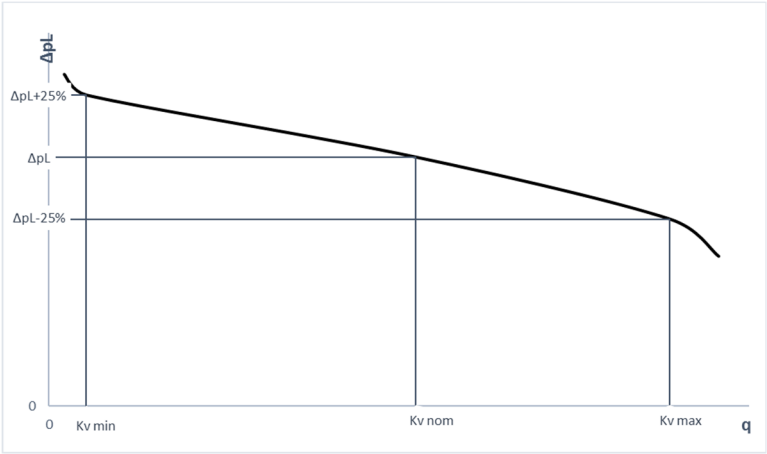


SELECTION AND RANGE OF DPRV

For calculation of DPRV the graphs listed above should be used, based on flow rate and pressure difference. For calculation make sure that at any point of the installation maximum flow in the circuit does not exceed the recommended value. The scale on the hand wheel indicates the pressure drop Δ_{PLnom} (nom).



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DN	65	80	100	125	150
Kv_{min} (m^3/h)	1,3	2,1	4,5	5,7	6,3
Kv_{nom} (m^3/h)	20,5	29,0	60,0	101,6	112,0
Kv_{max} (m^3/h)	48,4	74,7	110,0	169,0	200

To guarantee sufficient authority of DPRV, available pressure ΔP_{dyspoz} should be at least 1.5 times greater than the pressure drop in circulation ΔP_{instal}

INSTALLATION AND REGULATION

Install the valve so that the direction of flow of the medium matches the arrow on the body

- correct operation of the valve requires the appropriate length of straight sections: 5 x DN before and 2 x DN after the regulator, 10 x DN before if there is a pump

- protect plastic parts and valve scale when painting the pipeline

- regulators can be mounted in any position

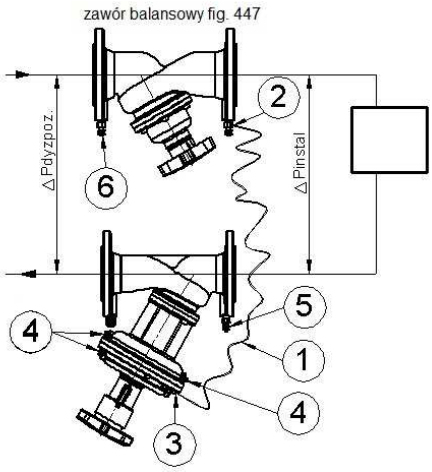
- before starting the installation, rinse the system with the regulator fully open

- installing a strainer upstream the regulator increases the certainty of its proper functioning

- connect an impulse tube (item 1) between the balance valve on the supply (point 2) and the supply opening above the regulator diaphragm (item 3) mounted on the return

- vent the upper and lower part as well as the impulse tube by turning on the appropriate vent plugs (item 4) until the water flows out

- test the regulator using cold water



ADJUSTMENT

Setting the regulator with valves with presetting:

1. Open all control valves completely

2. Set all valves at the end receivers for the designed flow

3. Set the differential pressure using the knob - the number of revolutions is given in the table below

4. Measure the differential pressure ΔP_{instal} using the T550 device, connecting it to the measuring valve of the valve (Fig. 447 pos. 2) and to the measuring valve of the regulator (pos. 5).

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REGULATION

ΔP_{instal} [kPa]	Turn	
	20-70 [kPa]	40-160 [kPa]
20	0,0	
25	1,5	
30	3,0	
35	4,5	
40	6,0	0,5
45	7,5	1,1
50	9,0	1,7
55	10,5	2,3
60	12,0	2,9
65	13,5	3,5
70	15,0	4,1
75		4,7
80		5,3
85		5,9
90		6,5
95		7,1
100		7,7
105		8,3
110		8,9
115		9,5
120		10,1
125		10,7
130		11,3
135		11,9
140		12,5
145		13,1
150		13,7
155		14,3
160		14,9

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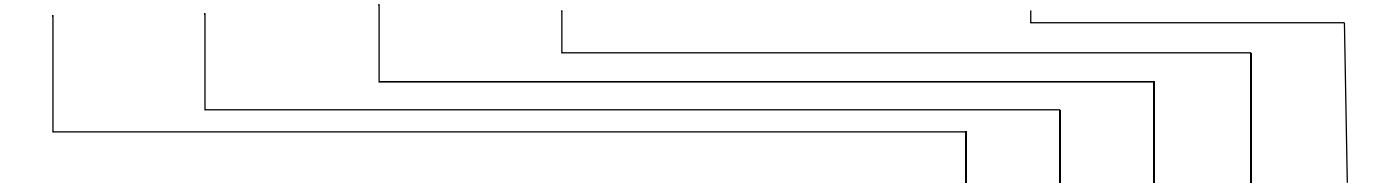
FIG.224

TYPE

Figure	Body material	Nominal diameter	Nominal pressure	Type
224	A Grey cast iron EN-GJL-250	65-150 mm	C 16 bar	56 differential pressure 0,4 - 1,6 bar, disc with EPDM rings
		65-150 mm	C 16 bar	66 differential pressure 0,2 - 0,7 bar, disc with EPDM rings

ORDERING

Figure	Body material	Nominal diameter	Nominal pressure	Type
224	A Grey cast iron EN-GJL-250	65-150 mm	C 16 bar	56 differential pressure 0,4 - 1,6 bar, disc with EPDM rings



Order example acc. index **224 A 065 C 56**

Differential pressure regulating valve, Y-type, flanged	224
Grey cast iron EN-GJL-250	A
Nominal diameter (mm)	065
Nominal pressure PN 16	C
Differential pressure 0,4 - 1,6 bar, disc with EPDM rings	56

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