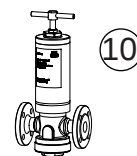


Vordruckregler, Industrie - Ausführung

Initial-Pressure-Controller, Industry - design



Inhaltsverzeichnis

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Ventil Valve	Verwendung Use	Medium	DN mm	P ₁ bar
Typ 80	Vordruckregler, federbelastet Initial Pressure Controller, springloaded mit Gewindeanschluss / with screwed ends	D/G/F	8 - 65 1/4 - 2½	0,25 - 62,0
Typ 81	Vordruckregler, federbelastet Initial Pressure Controller, springloaded mit Flanschanschluss, Sonderflansche / with flanged ends, special flanges	D/G/F	10 - 80 1/2 - 3	0,25 - 60,0
Typ 84	Vordruckregler, federbelastet Initial Pressure Controller, springloaded Gewindeanschluss, Membranventil / with screwed ends, diaphragm valve	D/G/F	8 - 65 1/4 - 2½	0,004 - 0,98
Typ 85	Vordruckregler, federbelastet Initial Pressure Controller, springloaded mit Flanschen, Sonderflanschen, Membranventil / with flanges, special flanges, diaphragm valve	D/G/F	10 - 80 1/2 - 3	0,004 - 0,98

Medium

- Dämpfe / steam.....	- D -
- Gase / gases.....	- G -
- Flüssigkeiten / liquids.....	- F -
Vordruck / inlet pressure.....	- P ₁ -

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 80

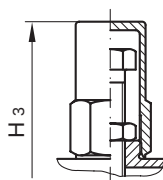
für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 80.2 : Wst. / Material 1.4301

Typ 80.2 : Wst. / Material 1.4571

Industrie - Ausführung / Industry - design

Gegendruckunabhängig / Back pressure independent



Vordruckregler mit Schutzkappe
auf Anfrage

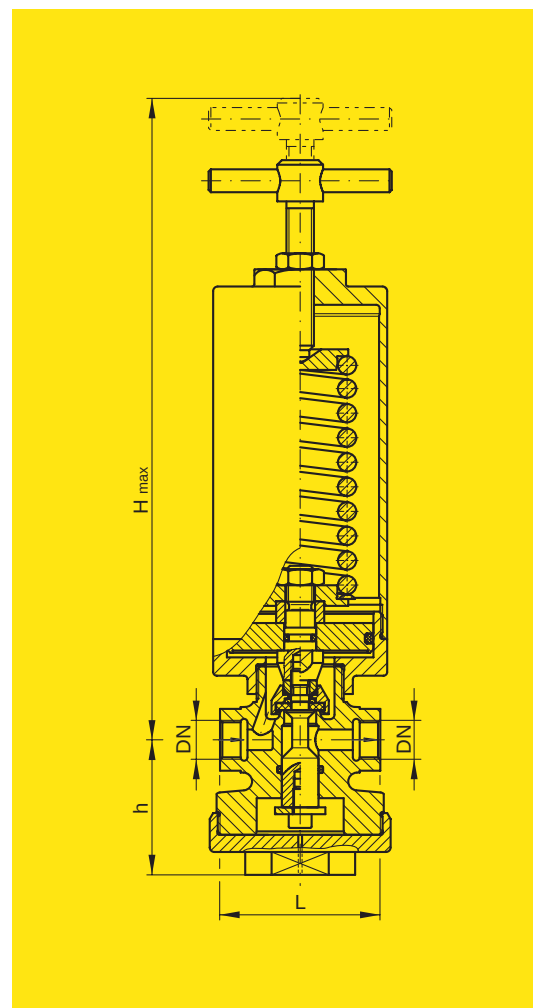
Valve with top cap
on request

Verwendung / Use

Betriebstemperatur / operating temperature

Kegel weich dichtend / disc soft seated

siehe techn. Anhang: KWD-1 / see techn. appendix: KWD-1



BG / Size 0

BG Size	Eintritt Inlet		Vordruckbereich** initial pressure range** P₁ P₁	Austritt Outlet		Baumaße Dimensions				Gewicht Weight		
	DN			minimal	maximal	DN		L	H _{max}		H ₃	h
	[mm]	G ¹⁾				[bar(g)]	[mm]	G ¹⁾	[mm]		[mm]	[mm]
0	8* 10 15*	1/4* 3/8 1/2*	0,35 / 62,0	8* 10 15*	1/4* 3/8 1/2*	70	272	267	59	2,1		
I	15 20 25*	1/2 3/4 1*	0,35 / 60,0	15 20 25*	1/2 3/4 1*	90 90 135	282	262	67	4,1		
II	25 32 40*	1 1¼ 1½*	0,25 / 47,0	25 32 40*	1 1¼ 1½*	105 105 155	288	268	75	5,8		
III ²⁾	40 50 65*	1½ 2 2½*	0,25 / 50,0	40 50 65*	1½ 2 2½*	145 145 210	335	315	90	10,3		
III B ²⁾	50 65	2 2½*	0,25 / 19,5	50 65	2 2½*	220 220	540	520	112			

* Sondergröße / special size

** Einstellbereiche des Vordruckes siehe Rückseite (VDT-80) / spring range for initial pressure see over-leaf (VDT-80)

1) Gewindemuffe nach DIN ISO 228, andere auf Anfrage / female screw acc. to DIN ISO 228, other on request

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 80

Tabelle: Einstellbereiche des Vordruckes P₁

Table: spring ranges for initial pressure P₁

BG / Size	0	I	II	III	III B
Eintr./Austr. Inlet/Outlet	DN 8, DN 10, DN 15	DN 15, DN 20, DN 25	DN 25, DN 32, DN 40	DN 40, DN 50, DN 65	DN 50, DN 65
	1/4, 3/8, 1/2	1/2, 3/4, 1	1, 1¼, 1½	1½, 2, 2½	2, 2½
Kolbenplatte piston plate [mm]	Einstellbereich spring range [bar(g)]				
					0,25 - 0,54
					0,45 - 0,90
Ø 119					0,70 - 1,37
					1,02 - 2,04
					1,65 - 3,30
					2,40 - 4,80
				0,25 - 0,55	1,10 - 2,20
Ø 99				0,43 - 0,85	1,65 - 3,30
				0,68 - 1,35	2,65 - 5,30
				1,20 - 2,40	3,90 - 7,70
				1,40 - 2,70	
			0,25 - 0,55	0,41 - 0,82	2,70 - 5,40
			0,46 - 0,92	0,65 - 1,27	4,30 - 8,60
Ø 84			0,72 - 1,44	1,00 - 2,00	6,30 - 12,60
			1,10 - 2,20	1,80 - 3,50	7,40 - 14,70
			1,60 - 3,10	2,00 - 4,00	9,80 - 19,50
			2,00 - 4,00		
	0,35 - 0,59	0,35 - 0,57	1,40 - 2,70	1,40 - 2,70	
	0,50 - 1,05	0,50 - 1,00	2,00 - 4,10	2,20 - 4,30	
Ø 64	0,90 - 1,72	0,80 - 1,60	2,90 - 5,80	3,70 - 7,40	
	1,40 - 2,70	1,30 - 2,60	3,70 - 7,40	4,30 - 8,50	
	2,10 - 4,18	2,00 - 4,00			
	3,00 - 6,00	2,90 - 5,70			
	2,50 - 5,00	2,40 - 4,80	2,80 - 5,60	4,10 - 8,20	
Ø 48	3,90 - 7,80	3,60 - 7,50	4,40 - 8,70	6,60 - 13,10	
	5,50 - 11,20	5,40 - 10,70	6,10 - 12,20	11,50 - 23,00	
	7,20 - 14,40	6,90 - 13,70	7,80 - 15,50	13,00 - 26,00	
				17,00 - 33,00	
				25,00 - 50,00	
	4,40 - 8,70	4,20 - 8,40	6,00 - 12,00		
	6,80 - 13,50	6,50 - 13,00	10,00 - 18,50		
Ø 38	9,70 - 19,20	9,20 - 18,40	13,00 - 26,00		
	12,40 - 24,80	12,00 - 23,70	17,00 - 33,00		
			22,00 - 44,00		
			24,00 - 47,00		
	11,00 - 21,90	10,50 - 21,00			
	17,00 - 34,00	17,00 - 33,00			
Ø 27	24,00 - 48,00	23,00 - 46,00			
	31,00 - 62,00	30,00 - 60,00			
		40,00 - 80,00 *			
		48,00 - 95,00 *			

größere Vordruckbereiche auf Anfrage / expanded initial pressure range on request
* nur für DN 15 / only DN 15

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 80

Discharge capacities

for saturated steam

for definition the size of Initial-Pressure-Controller

Size		0	I		II		III		III B	
Nominal pipe		10	15	20	25	32	40	50	50	65
		3/8	1/2	3/4	1	1¼	1½	2	2	2½
Overpressure p_u [bar(g)]		kg/h								
$t_{\max} \text{ } 200^\circ\text{C}$	0,15	4	10	17	27	40	83	120	120	180
	0,2	5	11	19	31	46	99	145	145	210
	0,3	6	13	23	35	55	112	160	160	240
	0,5	7	16	28	46	70	140	200	200	300
	0,75	9	20	35	57	85	175	250	250	370
	1	11	25	42	68	100	210	300	300	450
	1,5	14	32	55	90	140	280	400	400	590
	2	17	40	70	115	170	350	520	520	750
	2,5	21	47	84	135	200	400	600	600	880
	3	24	55	99	155	240	480	700	700	1020
	4	31	70	123	195	300	600	890	890	1300
	5	38	85	150	245	360	740	1080	1080	1600
	6	46	104	185	300	450	900	1340	1340	1950
	7	54	122	225	350	540	1100	1600	1600	2400
	8	62	140	250	400	600	1250	1800	1800	2700
	9	71	160	280	450	680	1380	2000	2000	2900
	10	80	180	320	500	750	1500	2300	2300	3300
	12	98	220	380	610	900	1850	2700	2700	4000
	14	115	260	450	720	1050	2300	3100	3100	4700

a) To the definition of the right valve size according to the table, the initial pressure is considerably. The usual piping speeds are appropriate for the table codes.

b) The valve size determined under a) can be selected around a nominal size smaller, if it is noted that the pipe diameter at the valve outlet is increased around at least one nominal size.

To small pressure ratios applies:

$$\begin{array}{l} \text{initial pressure } p \text{ [bar]} \\ \text{absolute inlet pressure } p \text{ [bar]} \end{array} \left\{ \begin{array}{l} \geq 0,7 \Rightarrow \text{correction factor} = 1,25 \\ \geq 0,8 \Rightarrow \text{correction factor} = 1,60 \\ \geq 0,9 \Rightarrow \text{correction factor} = 2,25 \end{array} \right.$$

$$\dot{m}_D = \dot{m}_D^1 \cdot f$$

The found correction factor must be multiplied due to the smaller flow rate by the given mass flow. With the help of the calculated value now a valve can be determined in accordance with the table.
With smaller pressure ratios than 0.7 no correction factor is used.

For superheated steam:

$$\dot{m}_D = \frac{V_H}{V_S} \cdot \dot{m}_D^1 \cdot f$$

Gaskets for steam:

$P_1 < 4$ [bar(g)] (<150°C): Piston gasket PTFE
Gasket ring EPDM
 $P_1 < 15$ [bar(g)] (<200°C): Piston gasket PTFE
Gasket ring AF 100
 $P_1 > 15$ [bar(g)] (>200°C): on request

* V_H : specific volume of the superheated steam
* V_S : specific volume of the saturated steam
 f : correction factor
 $\dot{m}_D^1$: given mass flow
 $\dot{m}_D$: resulting value of the mass flow, with that the table can be used.
* see VDI Steam table

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

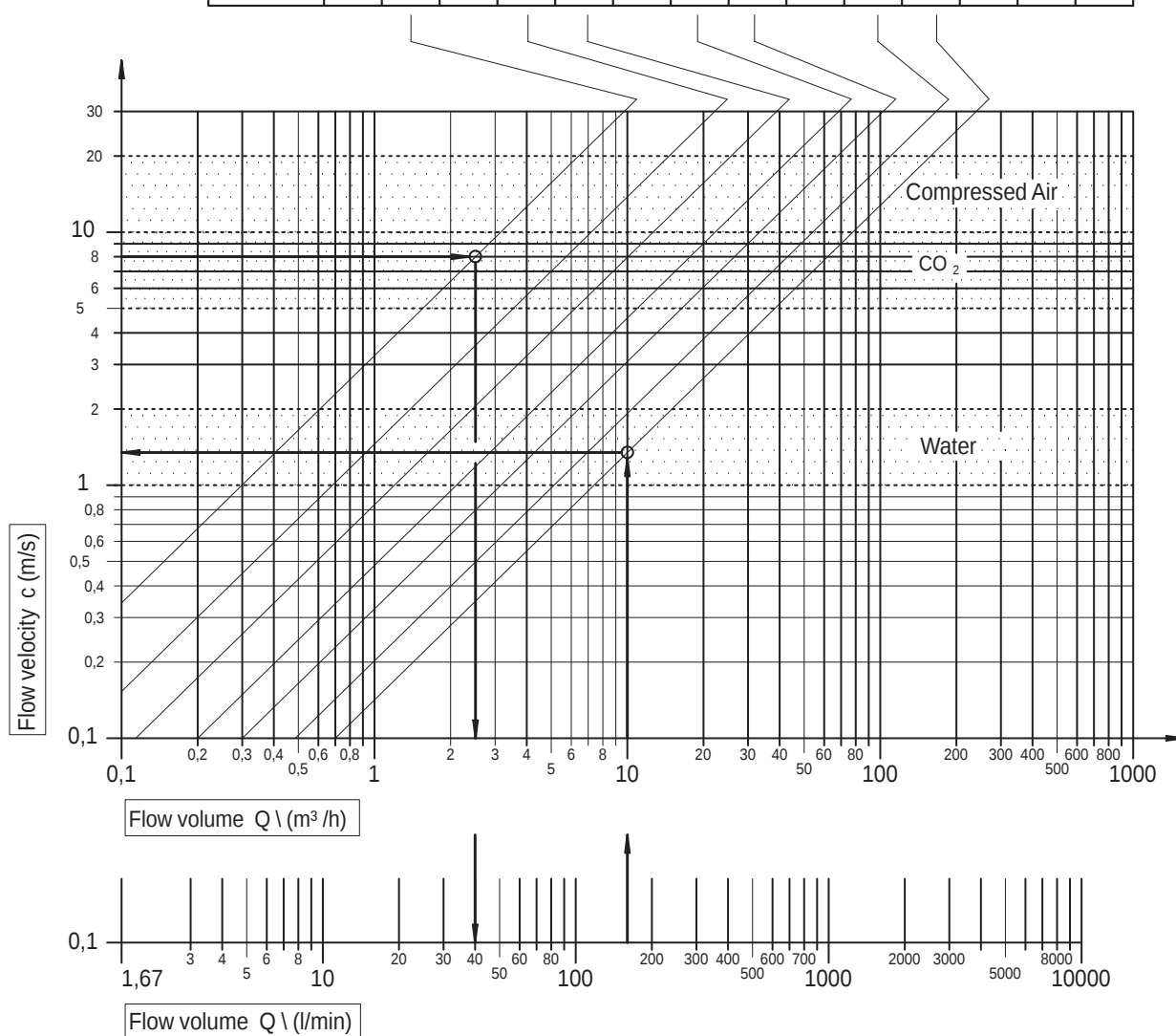
für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 80

Troughput diagram for pressure initial controller (gasiform medium, liquids)

- The corresponding valve size is, under assistance of the normal piping velocity, to calculate out of the diagram.
- The valve size, which is calculated under a), can be select one nominal size smaller, if at the piping outlet the valve size will be extend one nominall size greater.

BG	0			I			II			III			III B	
Eintr./Austr.	DN 8	DN 10	DN 15	DN 15	DN 20	DN 25	DN 25	DN 32	DN 40	DN 40	DN 50	DN 65	DN 50	DN 65
	1/4	3/8	1/2	1/2	3/4	1	1	1 1/4	1 1/2	1 1/2	2	2 1/2	2	2 1/2
K _{VS} - Wert	1,2	2	2,2	3	3,2	3,5	6,3	6,5	6,7	12,5	13	13,5	27,5	28



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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

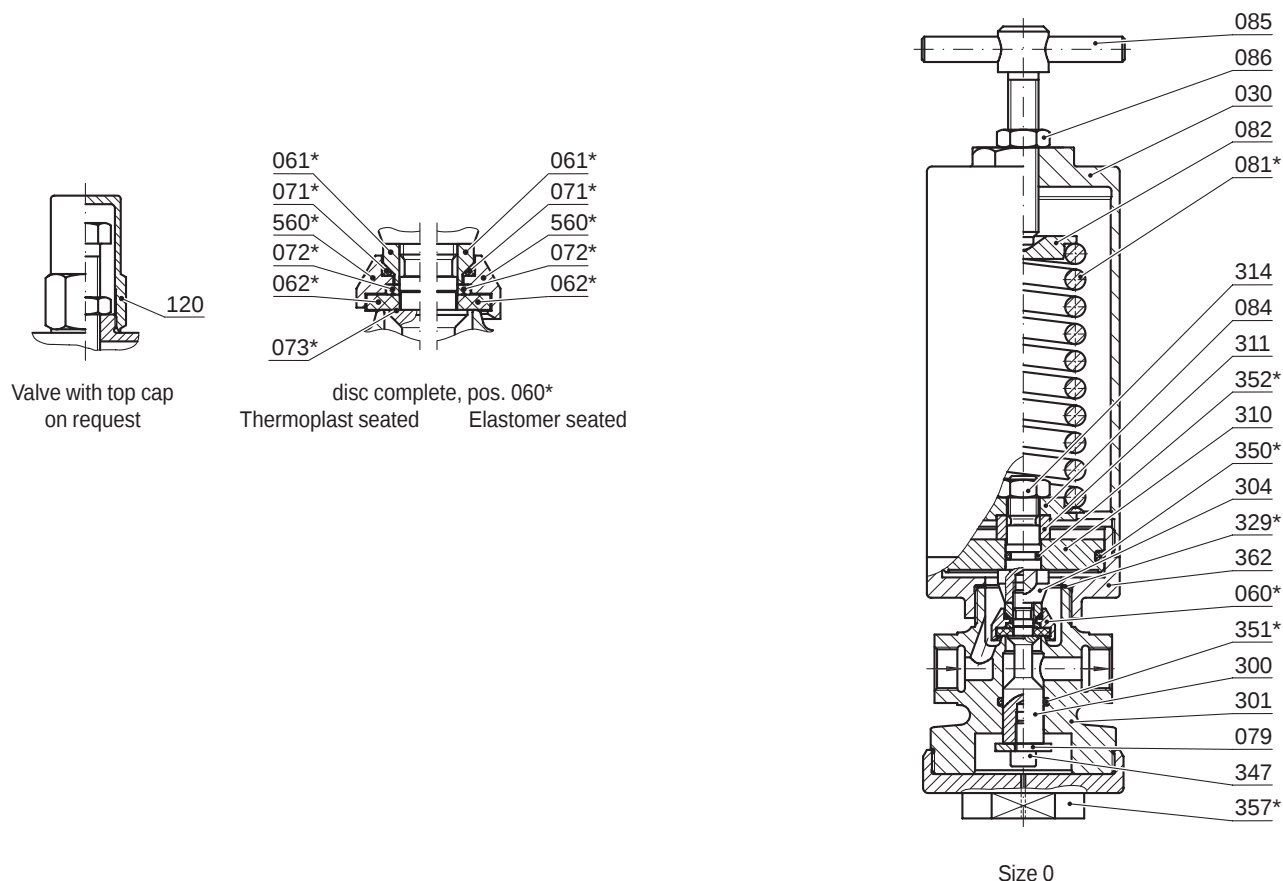
für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 80

Typ 80.2 : Wst. / Material 1.4301

Typ 80.2 : Wst. / Material 1.4571

G 1/4, 3/8, 1/2



Item	Description	Material		Item	Description	Material	
301	1 valve body	1.4301	1.4571 ¹⁾	300	1 piston	1.4571	1.4571
030	1 spring bonnet	1.4301	1.4301	304	1 inlet pressure piston	1.4571	1.4571
060*	1 disc, complete			310	1 piston plate	1.4571	1.4571
560*	1 disc	1.4571	1.4571	311	1 distance bush	1.4305	1.4305
061*	1 pressure piece	1.4571	1.4571	314	1 lock nut	A4	A4
062*	1 soft sealing	see techn. appendix: KWD-1		329*	1 o-ring	FPM ¹⁾	FPM ¹⁾
071*	1 o-ring	FPM ¹⁾	FPM ¹⁾	347	1 screw	A4	A4
072*	1 locking ring	1.4571	1.4571	350*	1 o-ring	FPM ¹⁾	FPM ¹⁾
073*	1 o-ring	FPM ¹⁾	FPM ¹⁾	351*	1 o-ring	FPM ¹⁾	FPM ¹⁾
079	1 lift stopper	1.4571	1.4571	352*	1 o-ring	FPM ¹⁾	FPM ¹⁾
081*	1 spring	1.4310	1.4310	357	1 bottom plug	1.4571	1.4571
082	1 springplate, upper	1.4305	1.4305	362	1 adapter	1.4571	1.4571
084	1 springplate, lower	1.4305	1.4305				
085	1 adjusting screw	1.4305	1.4305				
086	1 lock nut	A2	A2				
120	1 cap	1.4571	1.4571				

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* expendable parts

¹⁾ other materials on request

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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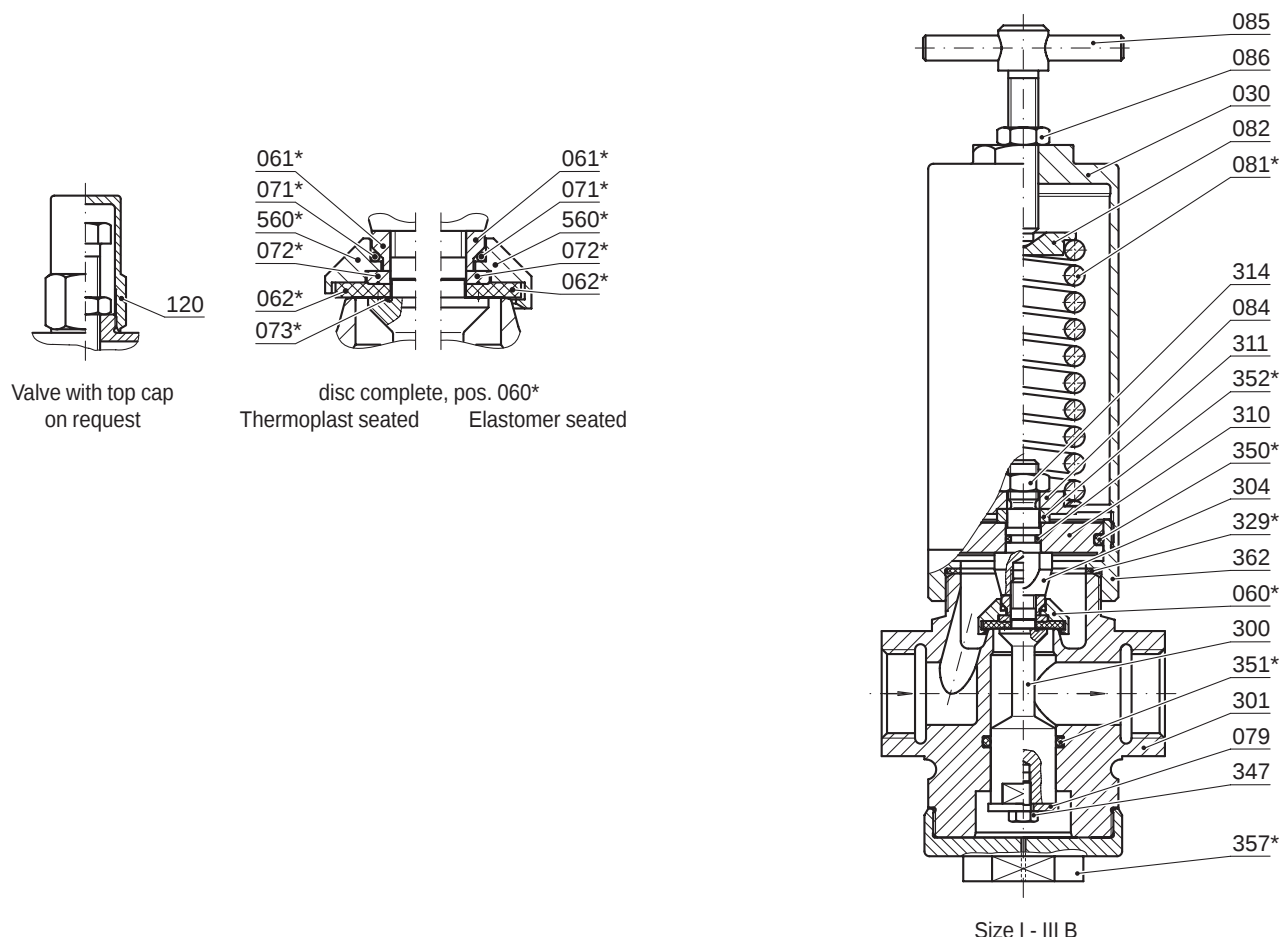
Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 80

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 80.2 : Wst. / Material 1.4301
Typ 80.2 : Wst. / Material 1.4571

G 1/2, 3/4, 1, 1¼, 1½, 2, 2½



Item	Description	Material		Item	Description	Material	
301	1 valve body	1.4301	1.4571 ¹⁾	300	1 piston	1.4571	1.4571
030	1 spring bonnet	1.4301	1.4301	304	1 inlet pressure piston	1.4571	1.4571
060*	1 disc, complete			310	1 piston plate	1.4571	1.4571
560*	1 disc	1.4571	1.4571	311	1 distance bush	1.4305	1.4305
061*	1 pressure piece	1.4571	1.4571	314	1 lock nut	A4	A4
062*	1 soft sealing	see techn. appendix: KWD-1		329*	1 o-ring	FPM ¹⁾	FPM ¹⁾
071*	1 o-ring	FPM ¹⁾	FPM ¹⁾	347	1 screw	A4	A4
072*	1 locking ring	1.4571	1.4571	350*	1 o-ring	FPM ¹⁾	FPM ¹⁾
073*	1 o-ring	FPM ¹⁾	FPM ¹⁾	351*	1 o-ring	FPM ¹⁾	FPM ¹⁾
079	1 lift stopper	1.4571	1.4571	352*	1 o-ring	FPM ¹⁾	FPM ¹⁾
081*	1 spring	1.4310	1.4310	357	1 bottom plug	1.4571	1.4571
082	1 springplate, upper	1.4305	1.4305	362	1 adapter	1.4571	1.4571
084	1 springplate, lower	1.4305	1.4305				
085	1 adjusting screw	1.4305	1.4305				
086	1 lock nut	A2	A2				
120	1 cap	1.4571	1.4571				

B_engl 01/06

* expendable parts

¹⁾ other materials on request

size III + III B only material-design 1.4571

Robinox AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 81

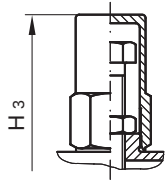
für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 81.2 : Wst. / Material 1.4301

Typ 81.2 : Wst. / Material 1.4571

Industrie - Ausführung / Industry - design

Gegendruckunabhängig / Back pressure independent



Vordruckregler mit Schutzkappe
auf Anfrage

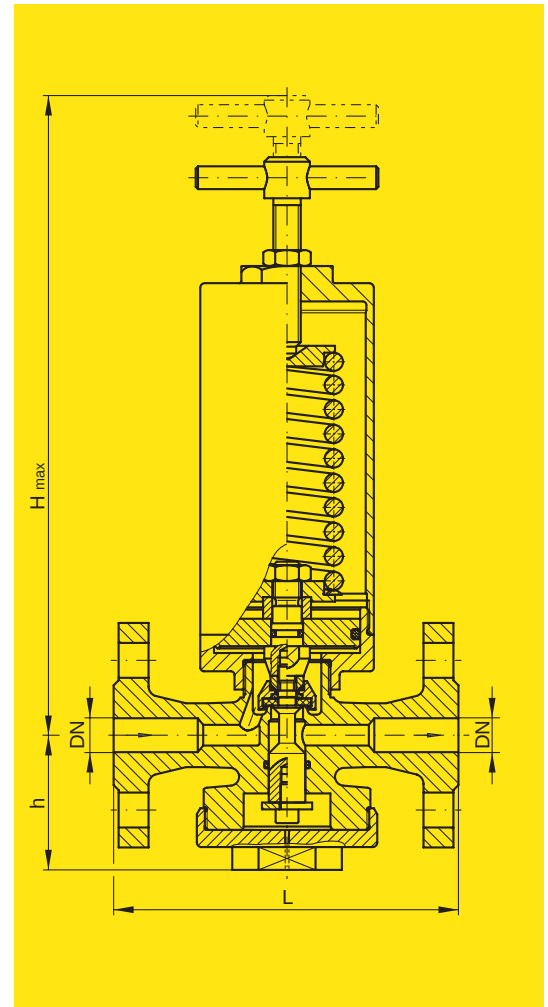
Valve with top cap
on request

Verwendung / Use

Betriebstemperatur / operating temperature

Kegel weich dichtend / disc soft seated

siehe techn. Anhang: KWD-1 / see techn. appendix: KWD-1



BG / Size 0

BG Size	Eintritt Inlet				Austritt Outlet		Baumaße Dimensions				Gewicht Weight
	DN		Vordruckbereich** initial pressure range**	P ₁ P ₁ maximal	DN		L	H _{max}	H ₃	h	
	DIN	ANSI			DIN	ANSI					
	[mm]				[mm]						
			[bar(g)]				[mm]	[mm]	[mm]	[mm]	[kg]
0	10 15*	- 1/2*	0,35 / 62,0		10 15*	- 1/2*	130	272	267	59	2,6
I	15 20 25*	1/2 3/4 1*	0,35 / 60,0		15 20 25*	1/2 3/4 1*	130 150 160	282	262	67	6,2
II	25 32 40*	1 1¼ 1½*	0,25 / 47,0		25 32 40*	1 1¼ 1½*	160 180 200	288	268	75	8,0
III ¹⁾	40 50 65*	1½ 2 2½*	0,25 / 50,0		40 50 65*	1½ 2 2½*	200 230 290	335	315	90	14,2
III B ¹⁾	50 65 80	2 2½ 3	0,25 / 19,5		50 65 80	2 2½ 3	300 290 310	540	520	112	

* Sondergröße / special size

** Einstellbereiche des Vordruckes siehe Rückseite (VDT-81) / spring range for initial pressure see over-leaf (VDT-81)

¹⁾ Nur in Werkstoff-Ausführung 1.4571 / only material-design 1.4571

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 81

Tabelle: Einstellbereiche des Vordruckes P_1

Table: spring ranges for initial pressure P_1

BG / Size	0	I	II	III	III B
Eintr./Austr. Inlet/Outlet	DN 10, DN 15	DN 15, DN 20, DN 25	DN 25, DN 32, DN 40	DN 40, DN 50, DN 65	DN 50, DN 65, DN 80
Kolbenplatte piston plate [mm]	3/8, 1/2	1/2, 3/4, 1	1, 1¼, 1½	1½, 2, 2½	2, 2½, 3
	Einstellbereich spring range [bar(g)]				
					0,25 - 0,54
					0,45 - 0,90
Ø 119					0,70 - 1,37
					1,02 - 2,04
					1,65 - 3,30
					2,40 - 4,80
Ø 99				0,25 - 0,55	1,10 - 2,20
				0,43 - 0,85	1,65 - 3,30
				0,68 - 1,35	2,65 - 5,30
				1,20 - 2,40	3,90 - 7,70
				1,40 - 2,70	
			0,25 - 0,55	0,41 - 0,82	2,70 - 5,40
			0,46 - 0,92	0,65 - 1,27	4,30 - 8,60
Ø 84			0,72 - 1,44	1,00 - 2,00	6,30 - 12,60
			1,10 - 2,20	1,80 - 3,50	7,40 - 14,70
			1,60 - 3,10	2,00 - 4,00	9,80 - 19,50
			2,00 - 4,00		
	0,35 - 0,59	0,35 - 0,57	1,40 - 2,70	1,40 - 2,70	
	0,50 - 1,05	0,50 - 1,00	2,00 - 4,10	2,20 - 4,30	
Ø 64	0,90 - 1,72	0,80 - 1,60	2,90 - 5,80	3,70 - 7,40	
	1,40 - 2,70	1,30 - 2,60	3,70 - 7,40	4,30 - 8,50	
	2,10 - 4,18	2,00 - 4,00			
	3,00 - 6,00	2,90 - 5,70			
Ø 48	2,50 - 5,00	2,40 - 4,80	2,80 - 5,60	4,10 - 8,20	
	3,90 - 7,80	3,60 - 7,50	4,40 - 8,70	6,60 - 13,10	
	5,50 - 11,20	5,40 - 10,70	6,10 - 12,20	11,50 - 23,00	
	7,20 - 14,40	6,90 - 13,70	7,80 - 15,50	13,00 - 26,00	
				17,00 - 33,00	
				25,00 - 50,00	
	4,40 - 8,70	4,20 - 8,40	6,00 - 12,00		
	6,80 - 13,50	6,50 - 13,00	10,00 - 18,50		
Ø 38	9,70 - 19,20	9,20 - 18,40	13,00 - 26,00		
	12,40 - 24,80	12,00 - 23,70	17,00 - 33,00		
			22,00 - 44,00		
			24,00 - 47,00		
	11,00 - 21,90	10,50 - 21,00			
	17,00 - 34,00	17,00 - 33,00			
Ø 27	24,00 - 48,00	23,00 - 46,00			
	31,00 - 62,00	30,00 - 60,00			
		40,00 - 80,00 *			
		48,00 - 95,00 *			

größere Vordruckbereiche auf Anfrage / expanded initial pressure range on request
* nur für DN 15 / only DN 15

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 81

Discharge capacities

for saturated steam

for definition the size of Initial-Pressure-Controller

Size		0	I		II		III		III B	
Nominal pipe		10	15	20	25	32	40	50	50	65
		3/8	1/2	3/4	1	1¼	1½	2	2	2½
Overpressure p_u [bar(g)]		kg/h								
$t_{\max} \text{ } 200^\circ\text{C}$	0,15	4	10	17	27	40	83	120	120	180
	0,2	5	11	19	31	46	99	145	145	210
	0,3	6	13	23	35	55	112	160	160	240
	0,5	7	16	28	46	70	140	200	200	300
	0,75	9	20	35	57	85	175	250	250	370
	1	11	25	42	68	100	210	300	300	450
	1,5	14	32	55	90	140	280	400	400	590
	2	17	40	70	115	170	350	520	520	750
	2,5	21	47	84	135	200	400	600	600	880
	3	24	55	99	155	240	480	700	700	1020
	4	31	70	123	195	300	600	890	890	1300
	5	38	85	150	245	360	740	1080	1080	1600
	6	46	104	185	300	450	900	1340	1340	1950
	7	54	122	225	350	540	1100	1600	1600	2400
	8	62	140	250	400	600	1250	1800	1800	2700
	9	71	160	280	450	680	1380	2000	2000	2900
	10	80	180	320	500	750	1500	2300	2300	3300
	12	98	220	380	610	900	1850	2700	2700	4000
	14	115	260	450	720	1050	2300	3100	3100	4700

a) To the definition of the right valve size according to the table, the initial pressure is considerably. The usual piping speeds are appropriate for the table codes.

b) The valve size determined under a) can be selected around a nominal size smaller, if it is noted that the pipe diameter at the valve outlet is increased around at least one nominal size.

Gaskets for steam:

$P_1 < 4$ [bar(g)] (<150°C): Piston gasket PTFE
Gasket ring EPDM

$P_1 < 15$ [bar(g)] (<200°C): Piston gasket PTFE
Gasket ring AF 100

$P_1 > 15$ [bar(g)] (>200°C): on request

To small pressure ratios applies:

initial pressure	p [bar]	$\geq 0,7 \Rightarrow$ correction factor = 1,25 $\geq 0,8 \Rightarrow$ correction factor = 1,60 $\geq 0,9 \Rightarrow$ correction factor = 2,25
absolute inlet pressure	p [bar]	

$$\dot{m}_D = \dot{m}_D^1 \cdot f$$

The found correction factor must be multiplied due to the smaller flow rate by the given mass flow. With the help of the calculated value now a valve can be determined in accordance with the table.

With smaller pressure ratios than 0.7 no correction factor is used.

For superheated steam:

$$\dot{m}_D = \frac{V_H}{V_S} \cdot \dot{m}_D^1 \cdot f$$

* V_H : specific volume of the superheated steam

* V_S : specific volume of the saturated steam

f : correction factor

$\dot{m}_D^1$: given mass flow

$\dot{m}_D$: resulting value of the mass flow, with that the table can be used.

* see VDI Steam table

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

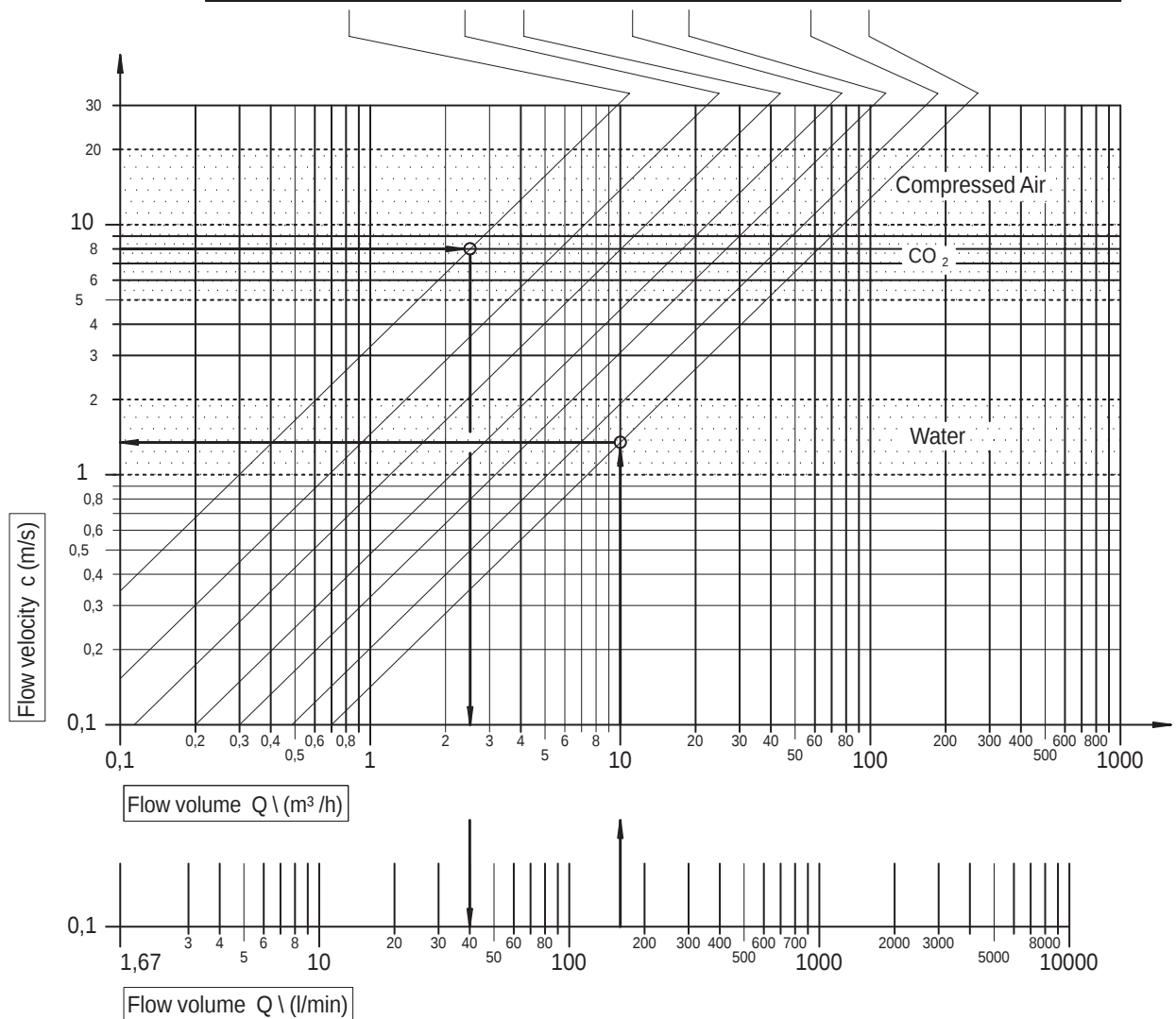
für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 81

Troughput diagram for pressure initial contoller (gasiform medium, liquids)

- The corresponding valve size is, under assistance of the normal piping velocity, to calculate out of the diagram.
- The valve size, which is calculated under a), can be select one nominal size smaller, if at the piping outlet the valve size will be extend one nominall size greater.

Size	0		I			II			III			III B		
Inlet / Outlet	DN 10	DN 15	DN 15	DN 20	DN 25	DN 25	DN 32	DN 40	DN 40	DN 50	DN 65	DN 50	DN 65	DN 80
	3/8	1/2	1/2	3/4	1	1	1 1/4	1 1/2	1 1/2	2	2 1/2	2	2 1/2	3
K _{VS} - Wert	2	2,2	3	3,2	3,5	6,3	6,5	6,7	12,5	13	13,5	27,5	28,0	28,5



31 01'06

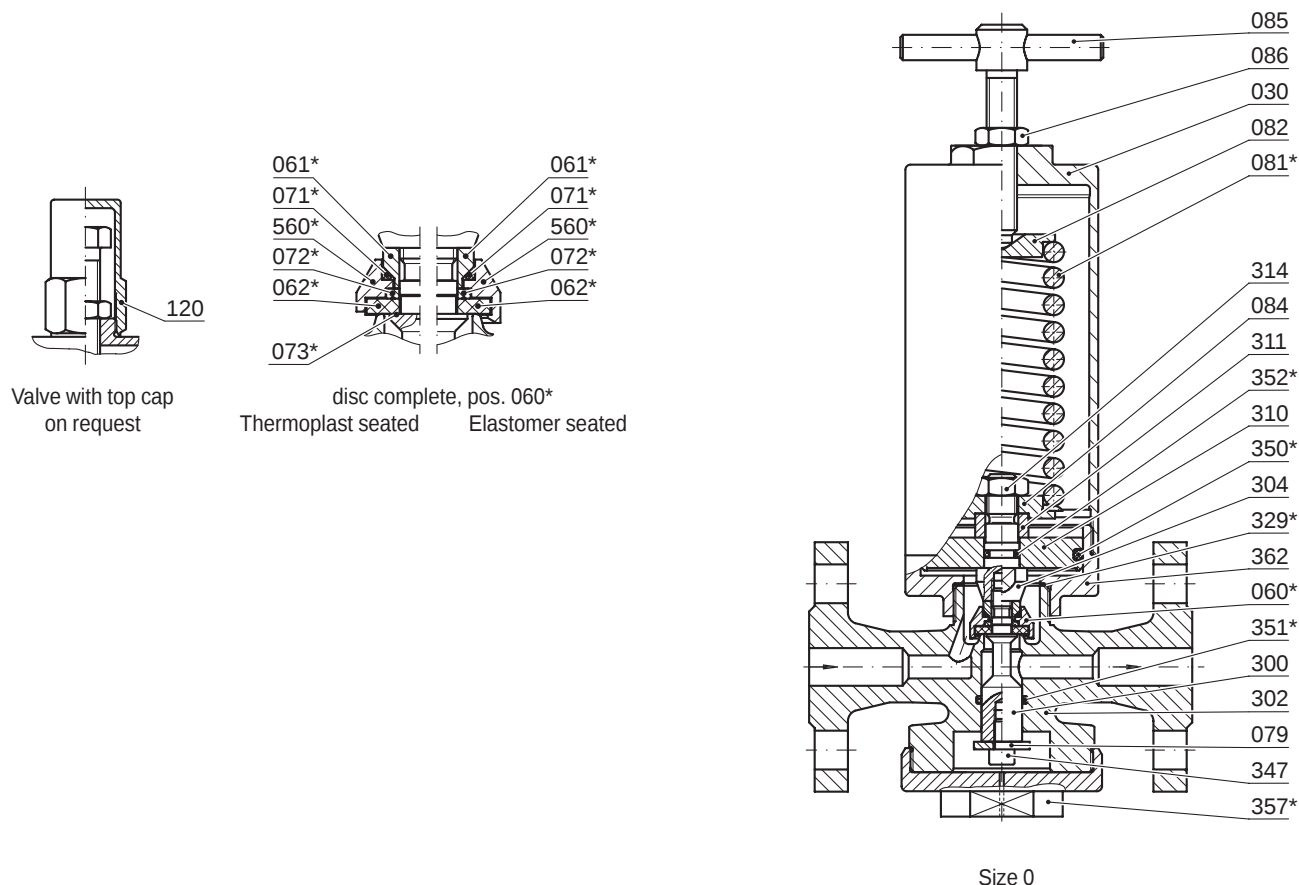
Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 81

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 81.2 : Wst. / Material 1.4301
Typ 81.2 : Wst. / Material 1.4571

DN 10, 15



Item	Description	Material		Item	Description	Material	
302	1 valve body with flanges	1.4301	1.4571	300	1 piston	1.4571	1.4571
030	1 spring bonnet	1.4301	1.4301	304	1 inlet pressure piston	1.4571	1.4571
060*	1 disc, complete			310	1 piston plate	1.4571	1.4571
560*	1 disc	1.4571	1.4571	311	1 distance bush	1.4305	1.4305
061*	1 pressure piece	1.4571	1.4571	314	1 lock nut	A4	A4
062*	1 soft sealing	see techn. appendix: KWD-1		329*	1 o-ring	FPM ¹⁾	FPM ¹⁾
071*	1 o-ring	FPM ¹⁾	FPM ¹⁾	347	1 screw	A4	A4
072*	1 locking ring	1.4571	1.4571	350*	1 o-ring	FPM ¹⁾	FPM ¹⁾
073*	1 o-ring	FPM ¹⁾	FPM ¹⁾	351*	1 o-ring	FPM ¹⁾	FPM ¹⁾
079	1 lift stopper	1.4571	1.4571	352*	1 o-ring	FPM ¹⁾	FPM ¹⁾
081*	1 spring	1.4310	1.4310	357	1 bottom plug	1.4571	1.4571
082	1 springplate, upper	1.4305	1.4305	362	1 adapter	1.4571	1.4571
084	1 springplate, lower	1.4305	1.4305				
085	1 adjusting screw	1.4305	1.4305				
086	1 lock nut	A2	A2				
120	1 cap	1.4571	1.4571				

ngl 01'06

* expendable parts

¹⁾ other materials on request

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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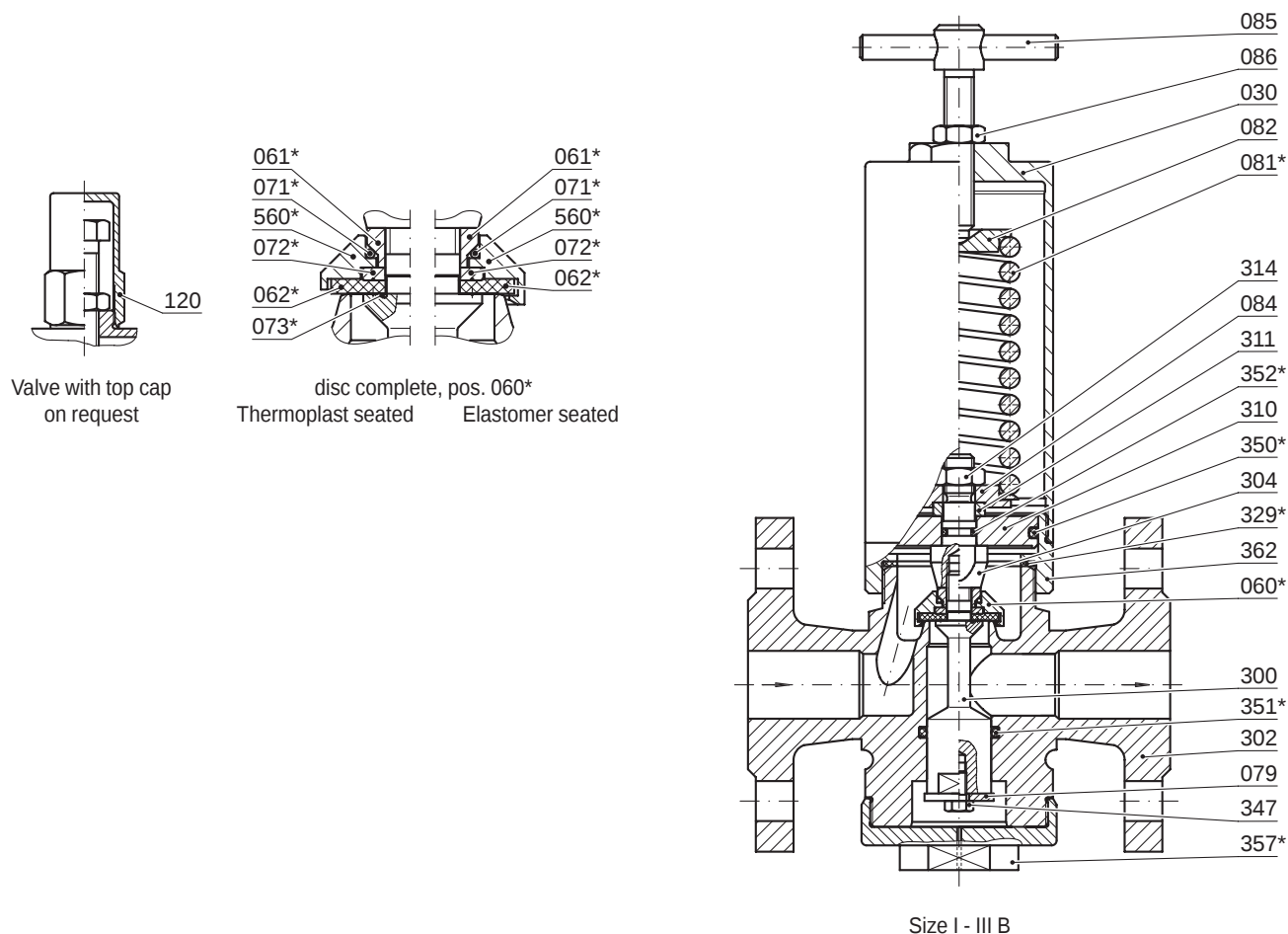
Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 81

für Dämpfe, Gase und Flüssigkeiten, großer Regelbereich
for steam, gases and liquids, expanded range of adjustment

Typ 81.2 : Wst. / Material 1.4301
Typ 81.2 : Wst. / Material 1.4571

DN 15, 20, 25, 32,
40, 50, 65, 80



Item	Description	Material		Item	Description	Material	
302	1 valve body with flanges	1.4301	1.4571	300	1 piston	1.4571	1.4571
030	1 spring bonnet	1.4301	1.4301	304	1 inlet pressure piston	1.4571	1.4571
060*	1 disc, complete			310	1 piston plate	1.4571	1.4571
560*	1 disc	1.4571	1.4571	311	1 distance bush	1.4305	1.4305
061*	1 pressure piece	1.4571	1.4571	314	1 lock nut	A4	A4
062*	1 soft sealing	see techn. appendix: KWD-1		329*	1 o-ring	FPM ¹⁾	FPM ¹⁾
071*	1 o-ring	FPM ¹⁾	FPM ¹⁾	347	1 screw	A4	A4
072*	1 locking ring	1.4571	1.4571	350*	1 o-ring	FPM ¹⁾	FPM ¹⁾
073*	1 o-ring	FPM ¹⁾	FPM ¹⁾	351*	1 o-ring	FPM ¹⁾	FPM ¹⁾
079	1 lift stopper	1.4571	1.4571	352*	1 o-ring	FPM ¹⁾	FPM ¹⁾
081*	1 spring	1.4310	1.4310	357	1 bottom plug	1.4571	1.4571
082	1 springplate, upper	1.4305	1.4305	362	1 adapter	1.4571	1.4571
084	1 springplate, lower	1.4305	1.4305				
085	1 adjusting screw	1.4305	1.4305				
086	1 lock nut	A2	A2				
120	1 cap	1.4571	1.4571				

B_engl 01/06

* expendable parts

¹⁾ other materials on request

size III + III B only material-design 1.4571

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 84

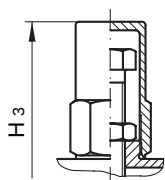
für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 84.2 : Wst. / Material 1.4301

Typ 84.2 : Wst. / Material 1.4571

Industrie - Ausführung / Industry - design

Gegendruckunabhängig / Back pressure independent



Vordruckregler mit Schutzkappe
auf Anfrage

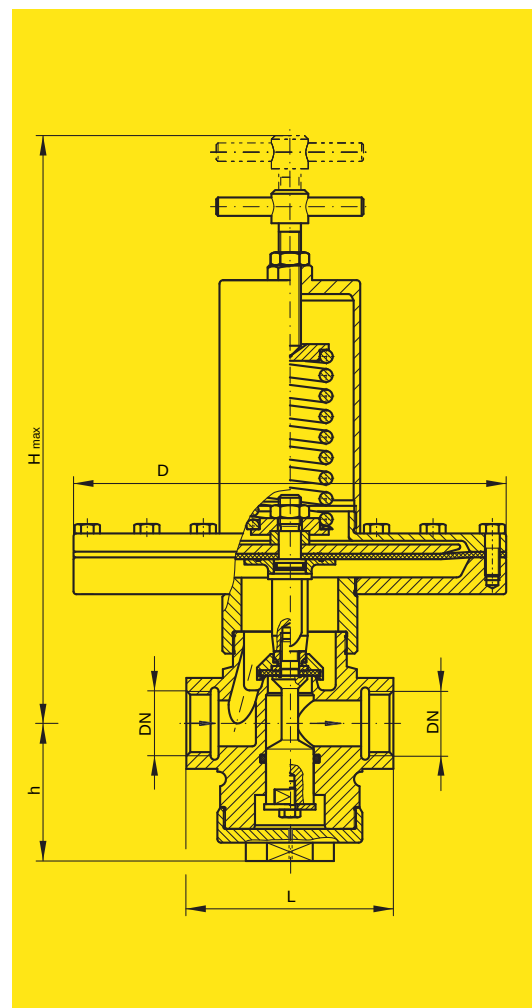
Valve with top cap
on request

Verwendung / Use

Betriebstemperatur / operating temperature

Kegel weich dichtend / disc soft seated

siehe techn. Anhang: KWD-1 / see techn. appendix: KWD-1



BG Size	Eintritt Inlet			Austritt Outlet		Baumaße Dimensions								Gewicht Weight
	DN		Vordruckbereich** initial pressure range** P ₁ P ₁ minimal maximal	DN		Membran- D diaphragm- D				L H _{max} H ₃ h				
						Ausführung/Design								
[mm]	G ¹⁾	[bar(g)]	[mm]	G ¹⁾	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
0	8	1/4	0,004 / 0,98	8	1/4	405	310	235	190	70	270	265	59	9,8
	10	3/8		10	3/8									
	15*	1/2*		15*	1/2*									
I	15	1/2	0,004 / 0,94	15	1/2					90	280	275	67	10,9
	20	3/4		20	3/4					90				10,9
	25*	1*		25*	1*					135				14,1
II	25	1	0,004 / 0,90	25	1					105				12,7
	32	1¼		32	1¼					105	300	295	75	12,7
	40*	1½*		40*	1½*					155				16,0
III ²⁾	40	1½	0,004 / 0,91	40	1½					145				18,8
	50	2		50	2					145	340	335	90	18,8
	65*	2½*		65*	2½*					210				22,1
III B ²⁾	50	2	0,004 / 0,46	50	2					220				
	65	2½		65	2½					220	560	540	112	

* Sondergröße / special size

** Einstellbereiche des Vordruckes siehe Rückseite (VDT-84) / spring range for initial pressure see over-leaf (VDT-84)

¹⁾ Gewindemuffe nach DIN ISO 228, andere auf Anfrage / female screw acc. to DIN ISO 228, other on request

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 84

Tabelle: Einstellbereiche des Vordruckes P_1

Table: spring ranges for initial pressure P_1

Baugröße / Size	0	I	II	III	III B
Eintr./Austr. Inlet/Outlet	DN 8, DN 10, DN 15	DN 15, DN 20, DN 25	DN 25, DN 32, DN 40	DN 40, DN 50, DN 65	DN 50, DN 65
	1/4, 3/8, 1/2	1/2, 3/4, 1	1, 1¼, 1½	1½, 2, 2½	2, 2½
Membran diaphragm [mm]	Einstellbereich spring range [bar(g)]				
	0,004 - 0,0078	0,004 - 0,0075	0,004 - 0,007	0,004 - 0,0065	0,004 - 0,007
	0,007 - 0,013	0,007 - 0,013	0,006 - 0,012	0,006 - 0,011	0,006 - 0,012
Ø 405	0,012 - 0,023	0,011 - 0,022	0,01 - 0,02	0,095 - 0,019	0,01 - 0,02
	0,02 - 0,04	0,019 - 0,038	0,018 - 0,035	0,017 - 0,033	0,018 - 0,036
	0,033 - 0,066	0,032 - 0,063	0,03 - 0,058	0,028 - 0,055	0,03 - 0,059
	0,05 - 0,1	0,050 - 0,099	0,046 - 0,091	0,043 - 0,086	0,046 - 0,092
	0,015 - 0,027	0,015 - 0,026	0,015 - 0,024	0,015 - 0,022	0,015 - 0,025
	0,025 - 0,046	0,023 - 0,044	0,021 - 0,041	0,019 - 0,038	0,021 - 0,042
Ø 310	0,04 - 0,08	0,039 - 0,077	0,036 - 0,072	0,034 - 0,068	0,037 - 0,074
	0,07 - 0,133	0,065 - 0,128	0,06 - 0,12	0,056 - 0,112	0,061 - 0,122
	0,11 - 0,21	0,1 - 0,2	0,093 - 0,185	0,088 - 0,175	0,096 - 0,191
	0,05 - 0,06	0,05 - 0,058	0,05 - 0,094	0,045 - 0,09	0,05 - 0,102
	0,05 - 0,1	0,05 - 0,1	0,083 - 0,165	0,08 - 0,16	0,091 - 0,181
Ø 235	0,09 - 0,18	0,088 - 0,176	0,137 - 0,273	0,132 - 0,264	0,15 - 0,3
	0,15 - 0,30	0,146 - 0,291	0,213 - 0,426	0,206 - 0,411	0,233 - 0,465
	0,24 - 0,47	0,227 - 0,454			
	0,11 - 0,22	0,1 - 0,21	0,1 - 0,2	0,1 - 0,2	
	0,19 - 0,38	0,19 - 0,37	0,18 - 0,35	0,18 - 0,35	
Ø 190	0,32 - 0,63	0,3 - 0,6	0,28 - 0,58	0,29 - 0,58	
	0,5 - 0,98	0,48 - 0,94	0,45 - 0,9	0,46 - 0,91	

größere Vordruckbereiche auf Anfrage / expanded initial pressure range on request

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 84

Discharge capacities

for saturated steam

for definition the size of Initial-Pressure-Controller

Size		0	I		II		III		III B	
Over- pressure p_u [bar(g)]	Nominal pipe	10	15	20	25	32	40	50	50	65
		3/8	1/2	3/4	1	1¼	1½	2	2	2½
		kg/h								
t_{max} 200 °C	0,15	4	10	17	27	40	83	120	120	180
	0,2	5	11	19	31	46	99	145	145	210
	0,3	6	13	23	35	55	112	160	160	240
	0,5	7	16	28	46	70	140	200	200	300
	0,75	9	20	35	57	85	175	250	250	370
	1	11	25	42	68	100	210	300	300	450
	1,5	14	32	55	90	140	280	400	400	590
	2	17	40	70	115	170	350	520	520	750
	2,5	21	47	84	135	200	400	600	600	880
	3	24	55	99	155	240	480	700	700	1020
	4	31	70	123	195	300	600	890	890	1300
	5	38	85	150	245	360	740	1080	1080	1600
	6	46	104	185	300	450	900	1340	1340	1950
	7	54	122	225	350	540	1100	1600	1600	2400
	8	62	140	250	400	600	1250	1800	1800	2700

a) To the definition of the right valve size according to the table, the initial pressure is considerably. The usual piping speeds are appropriate for the table codes.

b) The valve size determined under a) can be selected around a nominal size smaller, if it is noted that the pipe diameter at the valve outlet is increased around at least one nominal size.

Gaskets for steam:

$P_1 < 4$ [bar(g)] (<150°C): Piston gasket PTFE
Gasket ring EPDM

$P_1 < 15$ [bar(g)] (<200°C): Piston gasket PTFE
Gasket ring AF 100

To small pressure ratios applies:

$$\begin{array}{l} \text{initial pressure } p \text{ [bar]} \\ \text{absolute inlet pressure } p \text{ [bar]} \end{array} \left\{ \begin{array}{l} \geq 0,7 \Rightarrow \text{correction factor} = 1,25 \\ \geq 0,8 \Rightarrow \text{correction factor} = 1,60 \\ \geq 0,9 \Rightarrow \text{correction factor} = 2,25 \end{array} \right.$$

$$\dot{m}_D = \dot{m}_D^1 \cdot f$$

The found correction factor must be multiplied due to the smaller flow rate by the given mass flow. With the help of the calculated value now a valve can be determined in accordance with the table.
With smaller pressure ratios than 0.7 no correction factor is used.

For superheated steam:

$$\dot{m}_D = \frac{V_H}{V_S} \cdot \dot{m}_D^1 \cdot f$$

* V_H : specific volume of the superheated steam

* V_S : specific volume of the saturated steam

f : correction factor

$\dot{m}_D^1$: given mass flow

$\dot{m}_D$: resulting value of the mass flow, with that the table can be used.

* see VDI Steam table

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

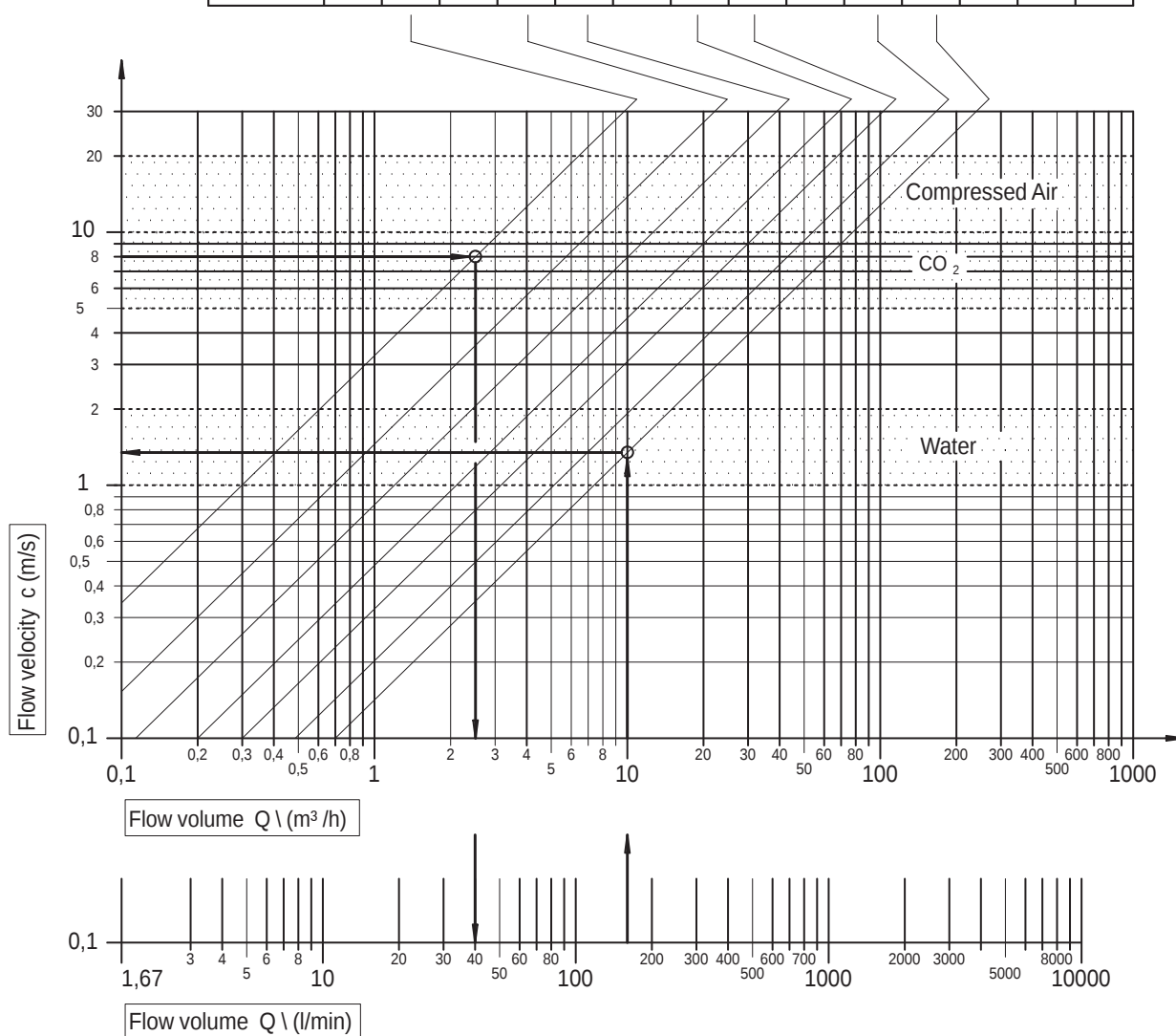
für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 84

Troughput diagram for pressure initial contoller (gasiform medium, liquids)

- The corresponding valve size is, under assistance of the normal piping velocity, to calculate out of the diagram.
- The valve size, which is calculated under a), can be select one nominal size smaller, if at the piping outlet the valve size will be extend one nominall size greater.

Size	0			I			II			III			III B	
Inlet / Outlet	DN 8	DN 10	DN 15	DN 15	DN 20	DN 25	DN 25	DN 32	DN 40	DN 40	DN 50	DN 65	DN 50	DN 65
	1/4	3/8	1/2	1/2	3/4	1	1	1 1/4	1 1/2	1 1/2	2	2 1/2	2	2 1/2
K _{VS} - Wert	1,2	2	2,2	3	3,2	3,5	6,3	6,5	6,7	12,5	13	13,5	27,5	28



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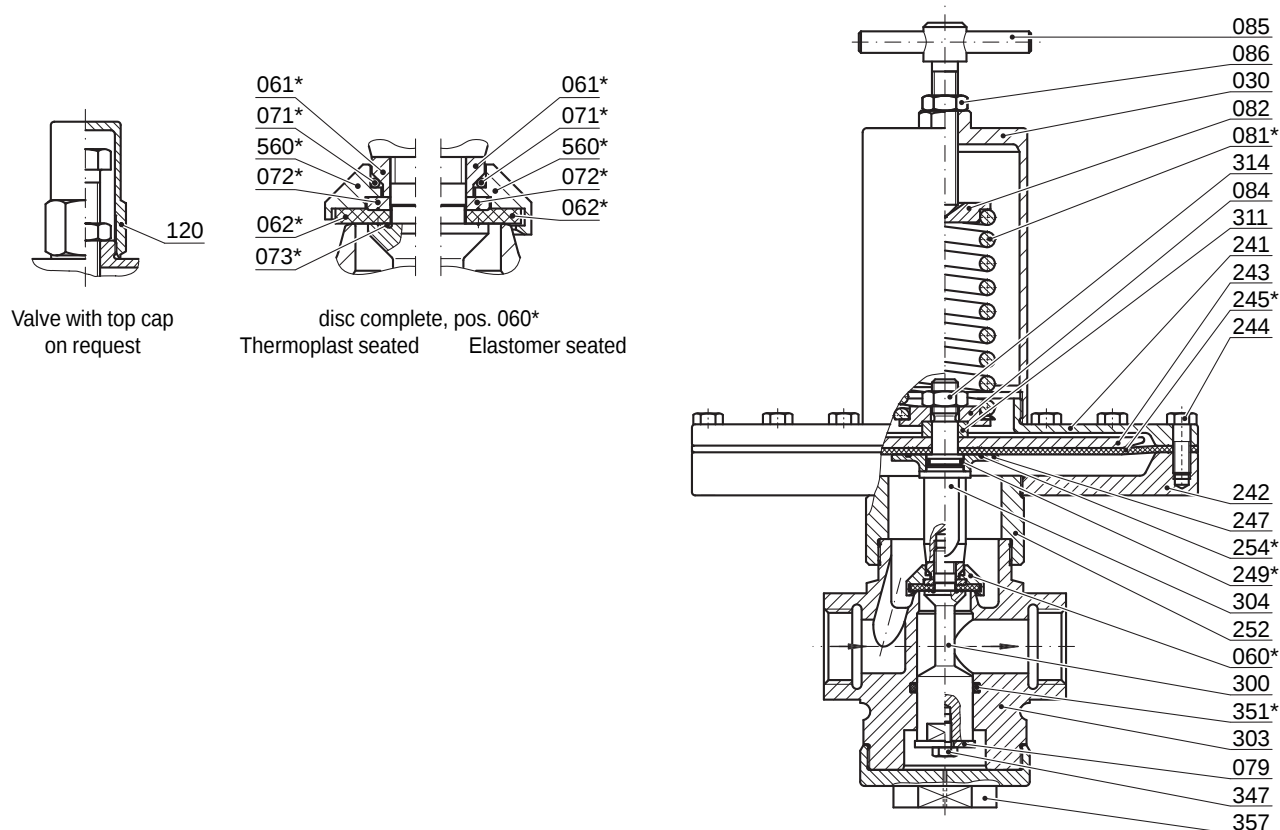
Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 84

für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 84.2 : Wst. / Material 1.4301
Typ 84.2 : Wst. / Material 1.4571

G 1/4, 3/8, 1/2, 3/4,
1, 1¼, 1½, 2, 2½



Item	Description	Material		Item	Description	Material	
303	1 valve body	1.4301	1.4571	243	1 upper clamp plate	1.4571	1.4571
030	1 spring bonnet	1.4301	1.4301	244	16 screws	A2	A2
060*	1 disc, complete			245*	1 diaphragm	EPDM	EPDM
560*	1 disc	1.4571	1.4571	247	1 lower clamp plate	1.4571	1.4571
061*	1 pressure piece	1.4571	1.4571	249*	1 o-ring	FPM ¹⁾	FPM ¹⁾
062*	1 soft sealing	see techn. appendix: KWD-1		252	1 adapter	1.4571	1.4571
071*	1 o-ring	FPM ¹⁾	FPM ¹⁾	254*	1 o-ring	FPM ¹⁾	FPM ¹⁾
072*	1 locking ring	1.4571	1.4571	300	1 piston	1.4571	1.4571
073*	1 o-ring	FPM ¹⁾	FPM ¹⁾	304	1 inlet pressure piston	1.4571	1.4404
079	1 lift stopper	1.4571	1.4571	311	1 distance bush	1.4305	1.4305
081*	1 spring	1.4310	1.4310	314	1 lock nut	A2	A2
082	1 springplate, upper	1.4305	1.4305	347	1 screw	A4	A4
084	1 springplate, lower	1.4305	1.4305	351*	1 o-ring	FPM ¹⁾	FPM ¹⁾
085	1 adjusting screw	1.4305	1.4305	357	1 bottom plug	1.4571	1.4571
086	1 lock nut	A2	A2				
120	1 cap	1.4571	1.4571				
241	1 upper housing	1.4571	1.4571				
242	1 lower housing	1.4571	1.4571				

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 85

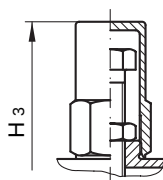
für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 85.2 : Wst. / Material 1.4301

Typ 85.2 : Wst. / Material 1.4571

Industrie - Ausführung / Industry - design

Gegendruckunabhängig / Back pressure independent



Vordruckregler mit Schutzkappe
auf Anfrage

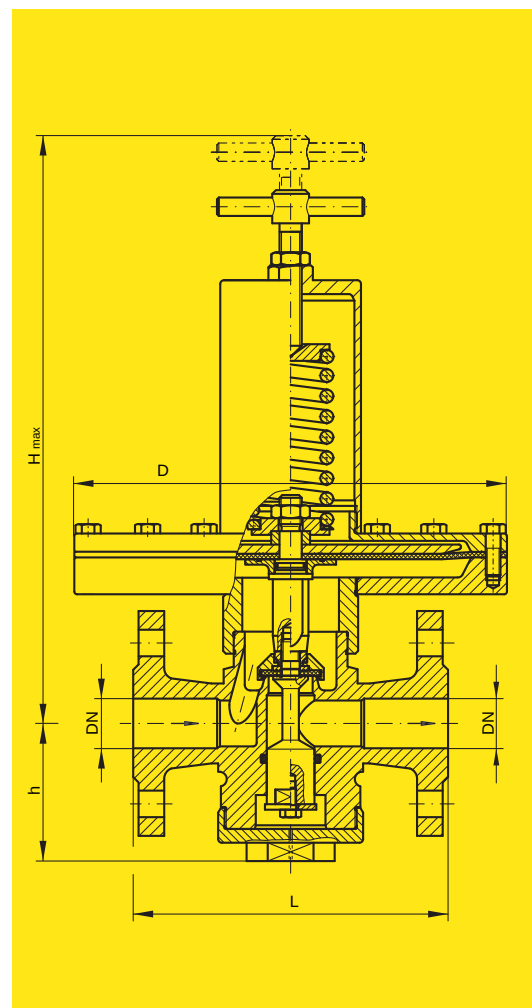
Valve with top cap
on request

Verwendung / Use

Betriebstemperatur / operating temperature

Kegel weich dichtend / disc soft seated

siehe techn. Anhang: KWD-1 / see techn. appendix: KWD-1



BG Size	Eintritt Inlet				Austritt Outlet		Baumaße Dimensions							Gewicht Weight	
	DN		Vordruckbereich** initial pressure range**		DN		Membran- D diaphragm- D								
							Ausführung/Design								
	DIN	ANSI	minimal	maximal	DIN	ANSI					L	H _{max}	H ₃		h
	[mm]		[bar(g)]			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	
0	10 15*	- 1/2*	0,004 / 0,98	10 15*	- 1/2*	405	310	235	190	130	270	265	59	11,3	
I	15 20	1/2 3/4	0,004 / 0,94	15 20	1/2 3/4					130 150	280	275	67	12,7 14,9	
	25 32	1 1¼	0,004 / 0,90	25 32	1 1¼					160 180	300	295	75	14,6 17,8	
III ¹⁾	40 50	1½ 2	0,004 / 0,91	40 50	1½ 2					200 230	340	335	90	22,3 25,5	
III B ¹⁾	50 65 80	2 2½ 3	0,004 / 0,46	50 65 80	2 2½ 3					300 290 310	560	540	112		

* Sondergröße / special size

** Einstellbereiche des Vordruckes siehe Rückseite (VDT-85) / spring range for initial pressure see over-leaf (VDT-85)

¹⁾ Nur in Werkstoff-Ausführung 1.4571 / only material-design 1.4571

Robinex AG
Bernstrasse 36
4663 Aarburg
Tel: 062 787 70 00
Fax: 062 787 70 01

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Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 85

Tabelle: Einstellbereiche des Vordruckes P_1

Table: spring ranges for initial pressure P_1

Baugröße / Size	0	I	II	III	III B
Eintr./Austr. Inlet/Outlet	DN 10, DN 15	DN 15, DN 20	DN 25, DN 32	DN 40, DN 50	DN 65, DN 80
	3/8, 1/2	1/2, 3/4	1, 1 1/4	1 1/2, 2	2 1/2, 3
Membran diaphragm [mm]	Einstellbereich spring range [bar(g)]				
Ø 405	0,004 - 0,0078	0,004 - 0,0075	0,004 - 0,007	0,004 - 0,0065	0,004 - 0,007
	0,007 - 0,013	0,007 - 0,013	0,006 - 0,012	0,006 - 0,011	0,006 - 0,012
	0,012 - 0,023	0,011 - 0,022	0,01 - 0,02	0,095 - 0,019	0,01 - 0,02
	0,02 - 0,04	0,019 - 0,038	0,018 - 0,035	0,017 - 0,033	0,018 - 0,036
	0,033 - 0,066	0,032 - 0,063	0,03 - 0,058	0,028 - 0,055	0,03 - 0,059
Ø 310	0,05 - 0,1	0,050 - 0,099	0,046 - 0,091	0,043 - 0,086	0,046 - 0,092
	0,015 - 0,027	0,015 - 0,026	0,015 - 0,024	0,015 - 0,022	0,015 - 0,025
	0,025 - 0,046	0,023 - 0,044	0,021 - 0,041	0,019 - 0,038	0,021 - 0,042
	0,04 - 0,08	0,039 - 0,077	0,036 - 0,072	0,034 - 0,068	0,037 - 0,074
	0,07 - 0,133	0,065 - 0,128	0,06 - 0,12	0,056 - 0,112	0,061 - 0,122
Ø 235	0,11 - 0,21	0,1 - 0,2	0,093 - 0,185	0,088 - 0,175	0,096 - 0,191
	0,05 - 0,06	0,05 - 0,058	0,05 - 0,094	0,045 - 0,09	0,05 - 0,102
	0,05 - 0,1	0,05 - 0,1	0,083 - 0,165	0,08 - 0,16	0,091 - 0,181
	0,09 - 0,18	0,088 - 0,176	0,137 - 0,273	0,132 - 0,264	0,15 - 0,3
	0,15 - 0,30	0,146 - 0,291	0,213 - 0,426	0,206 - 0,411	0,233 - 0,465
Ø 190	0,24 - 0,47	0,227 - 0,454			
	0,11 - 0,22	0,1 - 0,21	0,1 - 0,2	0,1 - 0,2	
	0,19 - 0,38	0,19 - 0,37	0,18 - 0,35	0,18 - 0,35	
	0,32 - 0,63	0,3 - 0,6	0,28 - 0,58	0,29 - 0,58	
	0,5 - 0,98	0,48 - 0,94	0,45 - 0,9	0,46 - 0,91	

größere Vordruckbereiche auf Anfrage / expanded initial pressure range on request

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 85

Discharge capacities

for saturated steam

for definition the size of Initial-Pressure-Controller

Size		0	I		II		III		III B	
Over- pressure p_u [bar(g)]	Nominal pipe	10	15	20	25	32	40	50	65	80
		3/8	1/2	3/4	1	1¼	1½	2	2½	3
		kg/h								
t_{max} 200 °C	0,15	4	10	17	27	40	83	120	180	260
	0,2	5	11	19	31	46	99	145	210	310
	0,3	6	13	23	35	55	112	160	240	360
	0,5	7	16	28	46	70	140	200	300	440
	0,75	9	20	35	57	85	175	250	370	560
	1	11	25	42	68	100	210	300	450	680
	1,5	14	32	55	90	140	280	400	590	880
	2	17	40	70	115	170	350	520	750	1120
	2,5	21	47	84	135	200	400	600	880	1310
	3	24	55	99	155	240	480	700	1020	1540
	4	31	70	123	195	300	600	890	1300	1900
	5	38	85	150	245	360	740	1080	1600	2400
	6	46	104	185	300	450	900	1340	1950	2900
	7	54	122	225	350	540	1100	1600	2400	3400
	8	62	140	250	400	600	1250	1800	2700	4000

a) To the definition of the right valve size according to the table, the initial pressure is considerably. The usual piping speeds are appropriate for the table codes.

b) The valve size determined under a) can be selected around a nominal size smaller, if it is noted that the pipe diameter at the valve outlet is increased around at least one nominal size.

Gaskets for steam:

$P_1 < 4$ [bar(g)] (<150°C): Piston gasket PTFE
Gasket ring EPDM

$P_1 < 15$ [bar(g)] (<200°C): Piston gasket PTFE
Gasket ring AF 100

To small pressure ratios applies:

$$\begin{array}{l} \text{initial pressure } p \text{ [bar]} \\ \text{absolute inlet pressure } p \text{ [bar]} \end{array} \left\{ \begin{array}{l} \geq 0,7 \Rightarrow \text{correction factor} = 1,25 \\ \geq 0,8 \Rightarrow \text{correction factor} = 1,60 \\ \geq 0,9 \Rightarrow \text{correction factor} = 2,25 \end{array} \right.$$

$$\dot{m}_D = \dot{m}_D^1 \cdot f$$

The found correction factor must be multiplied due to the smaller flow rate by the given mass flow. With the help of the calculated value now a valve can be determined in accordance with the table.
With smaller pressure ratios than 0.7 no correction factor is used.

For superheated steam:

$$\dot{m}_D = \frac{V_H}{V_S} \cdot \dot{m}_D^1 \cdot f$$

* V_H : specific volume of the superheated steam

* V_S : specific volume of the saturated steam

f : correction factor

$\dot{m}_D^1$: given mass flow

$\dot{m}_D$: resulting value of the mass flow, with that the table can be used.

* see VDI Steam table

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

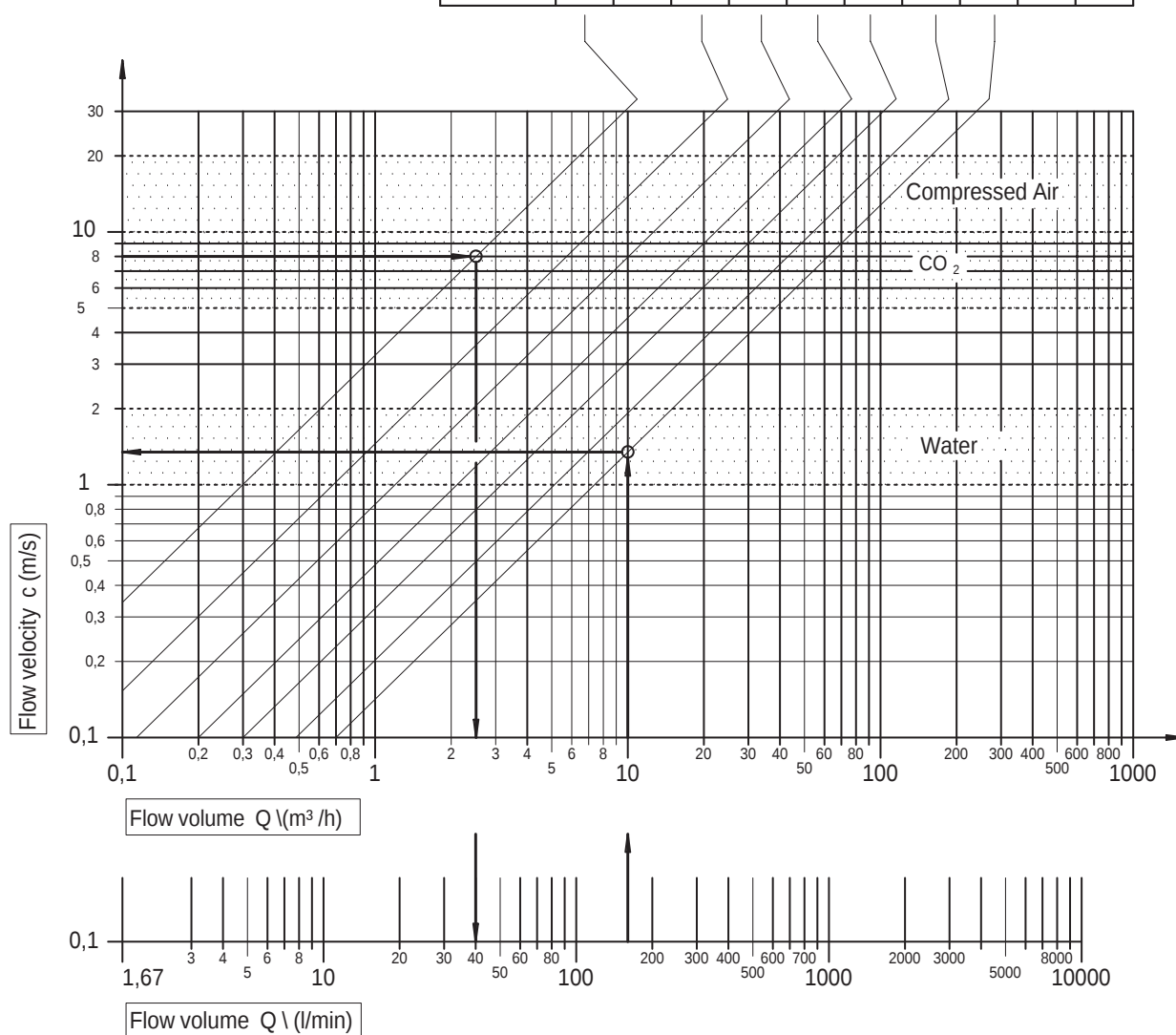
für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 85

Troughput diagram for pressure initial contoller (gasiform medium, liquids)

- The corresponding valve size is, under assistance of the normal piping velocity, to calculate out of the diagram.
- The valve size, which is calculated under a), can be select one nominal size smaller, if at the piping outlet the valve size will be extend one nominall size greater.

BG	0		I		II		III		III B	
Eintr./Austr.	DN 10	DN 15	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80
	3/8	1/2	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
K _{VS} - Wert	2	2,2	3	3,2	6,3	6,5	12,5	13	28	28,5



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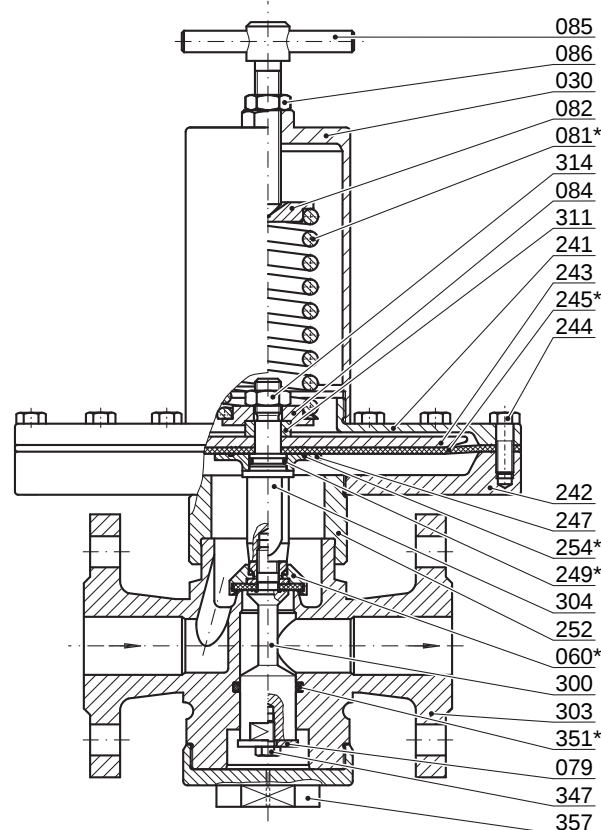
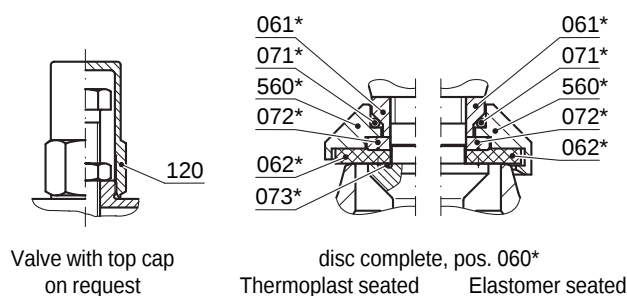
Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ 85

für Dämpfe, Gase und Flüssigkeiten, für sehr kleinen Minderdruck
for steam, gases and liquids, for very low reduced pressure

Typ 85.2 : Wst. / Material 1.4301
Typ 85.2 : Wst. / Material 1.4571

DN 10, 15, 20, 25, 32,
40, 50, 65, 80



Item	Description	Material		Item	Description	Material	
303	1 valve body with flanges	1.4301	1.4571	243	1 upper clamp plate	1.4571	1.4571
030	1 spring bonnet	1.4301	1.4301	244	16 screws	A2	A2
060*	1 disc, complete			245*	1 diaphragm	EPDM	EPDM
560*	1 disc	1.4571	1.4571	247	1 lower clamp plate	1.4571	1.4571
061*	1 pressure piece	1.4571	1.4571	249*	1 o-ring	FPM ¹⁾	FPM ¹⁾
062*	1 soft sealing	see techn. appendix: KWD-1		252	1 adapter	1.4571	1.4571
071*	1 o-ring	FPM ¹⁾	FPM ¹⁾	254*	1 o-ring	FPM ¹⁾	FPM ¹⁾
072*	1 locking ring	1.4571	1.4571	300	1 piston	1.4571	1.4571
073*	1 o-ring	FPM ¹⁾	FPM ¹⁾	304	1 inlet pressure piston	1.4571	1.4404
079	1 lift stopper	1.4571	1.4571	311	1 distance bush	1.4305	1.4305
081*	1 spring	1.4310	1.4310	314	1 lock nut	A2	A2
082	1 springplate, upper	1.4305	1.4305	347	1 screw	A4	A4
084	1 springplate, lower	1.4305	1.4305	351*	1 o-ring	FPM ¹⁾	FPM ¹⁾
085	1 adjusting screw	1.4305	1.4305	357	1 bottom plug	1.4571	1.4571
086	1 lock nut	A2	A2				
120	1 cap	1.4571	1.4571				
241	1 upper housing	1.4571	1.4571				
242	1 lower housing	1.4571	1.4571				