

2-way pressure reducing valve NG 10, 25 and 32



Systemtechnik
GmbH

indirectly-controlled
Interface to DIN 24 340 and ISO

PN [$p_{max.}$] = 315 bar

7501407.06.01.06

Description (standard units)

Design

The pressure reducing valves of Type D M K are indirectly-controlled spool-type valves.

Actuation

The pressure is set manually by means of a rotary knob. The setting can, if desired, be safeguarded by means of locking (E 10-closure) or by means of a lead seal.

Mounting

The units are bolted on subplates and sealed by O-rings.

Line connection

Subplate, interface to
DIN 24 340 and ISO.



Features

- High flow rating
- Sensitive adjustment
- Stable control characteristics

Type code

Pressure reducing valve

D	M	K	G	...	001	...	O	...
			1	2		3		4		5

1 Nominal size NG: **10**
25
32

2 Actuation: **H** – Manual setting
HV – Manual setting (lockable)
HK – Set-screw with cover
(can be lead sealed)

3 Pressure-setting range: **70** – Up to 100 bar
90 – Up to 315 bar

4 Engineering version: **2**

5 Sealing material: **O** – Perbunan
V – Viton

Subplate

P	DM	...	G	...	001	...	O	O
		1		2		3		

1 Nomin: **10**
25
32

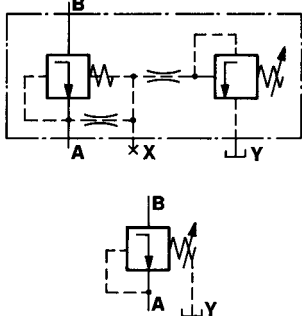
2 Line connection: **4** – G 1/2 (Internal- NG 10
6 – G 1 thread NG 25
8 – G 1 1/2 to NG 32
DIN ISO
228/1)

3 Engineering version: **1**

Parameters according to VDI 3276

Type designation	D M K 10..G...	D M K 25..G...	D M K 32..G...
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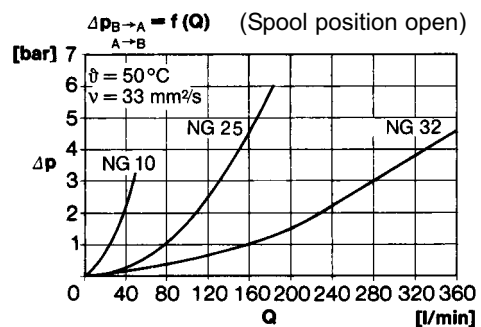
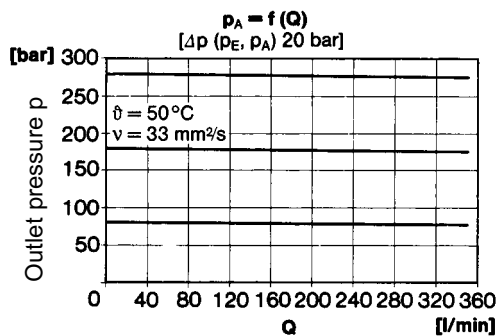
General parameters

Designation	Pressure reducing valve				
Symbol					
Design	Spool-type valve, indirectly-controlled				
Type of mounting	Flange				
Line connection	Subplate				
Mounting position	Optional				
Flow direction	From B to A				
Actuation	Manual setting				
Weight of pressure reducing valve	[kg]	4,9	8,2	10	
Weight of subplate	[kg]	1,6	3,7	5,9	
Ambient temperature	ϑ_u	[°C]	-20 ... +50		
Size	v	NG	10	25	32

Hydraulic parameters

Operating pressure range	p_e	[bar]	... 315	
Adjustable pressure range	p_v	[bar]	Pressure stage 70: 5 bis 100 Pressure stage 90: 5 bis 315	
Pressure medium temperature	ϑ_m max.	[°C]	+70	
Viscosity range	v	[mm ² /s]	12 ... 500	
Flow	Q	[l/min]	See characteristic curves	
Control oil flow	Q_{St}	[l/min]	0,5	

Characteristic curves



Note: If flow is from A → B, setting pressure p_v must be higher than the max. return pressure at port B and corresponding Δp of diagram.

Ordering

The units are designated by their type number. The composition of this number can be drawn from the type code. The standard versions are listed in the type survey. When ordering any of the standard versions, please state type number as well as catalog number to preclude possible misinterpretations. When inquiring about or ordering units not listed in our type survey of this publication, the type number made up by you by means of the type code, however, will do. The corresponding catalog number will then be stated in our confirmation of order. Units with flanged connection are delivered complete with fixing bolts and O-rings. The subplate must be ordered separately.

Example of how to order

Wanted: Pressure reducing valve NG 10 for flanged mounting with manual setting. Setting pressure max. 315 bar, with mating subplate.

Pressure reducing valve:

Type-No.: D M K 10 H G 90 001 2 O O
Cat. No.: **6058600**

Subplate:

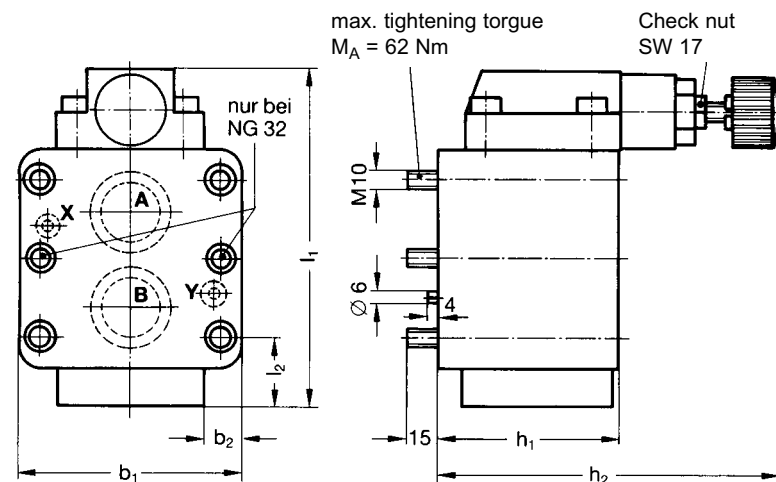
Type-No.: P DM 10 G 4 001 1 O O
Cat. No.: **2840002**

Type survey (standard versions)

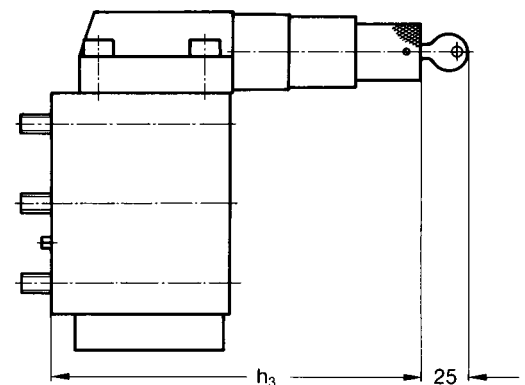
NG	Q [l/min]	p _v max. [bar]	Actuation	Line connection	Typ	Cat. No.
10	40	100 315	Manual setting	Subplate G 1/2 P DM 10 G 4 001 1 O O 2840002	D M K 10 H G 70 001 2 O O D M K 10 H G 90 001 2 O O	6058400 6058600
25	150	100 315		Subplate G 1 P DM 25 G 6 001 1 O O 2840003	D M K 25 H G 70 001 2 O O D M K 25 H G 90 001 2 O O	6058800 6059000
32	350	100 315		Subplate G 1 1/2 P DM 32 G 8 001 1 O O 2840004	D M K 32 H G 70 001 2 O O D M K 32 H G 90 001 2 O O	6059200 6059400

Dimensional drawings

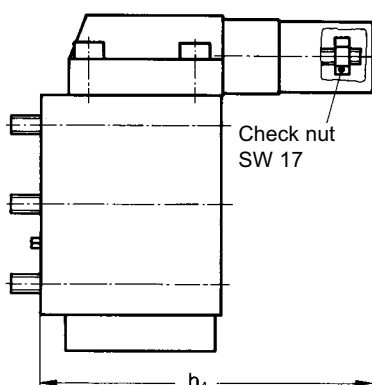
Pressure reducing valves D M K..H...



D M K..HV...



D M K..HK...

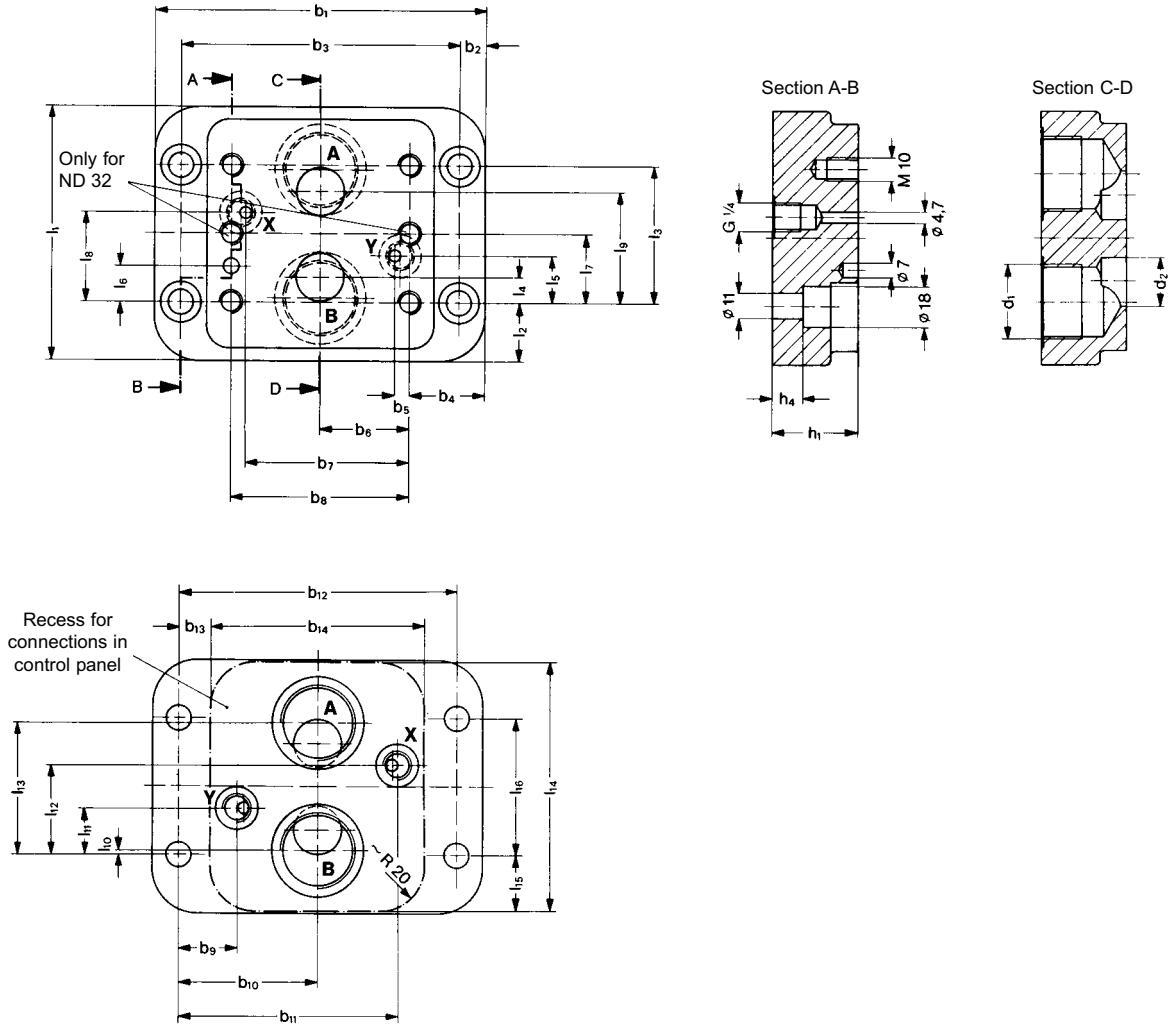


NG	b ₁	b ₂	h ₁	h ₂	h ₃	h ₄	l ₁	l ₂
10	88,5	11	86	168	183	163	135	31
25	103,5	12	86	168	183	163	176	51
32	119	11	98	182	197	177	178	37

Dimensional drawings

Subplates

- G 1/2 with hole pattern according to DIN 24340-D 10-1 and ISO 5781-AG-06-2-A
- G 1 with hole pattern according to DIN 24340-D 25-1 and ISO 5781-AH-08-2-A
- G 1 1/2 with hole pattern according to DIN 24340-D 32-1 and ISO 5781-AJ-10-2-A

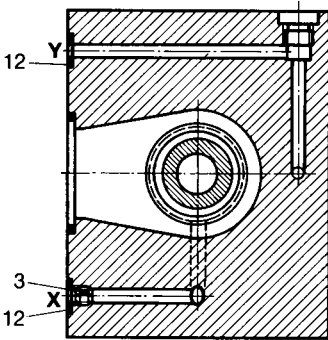
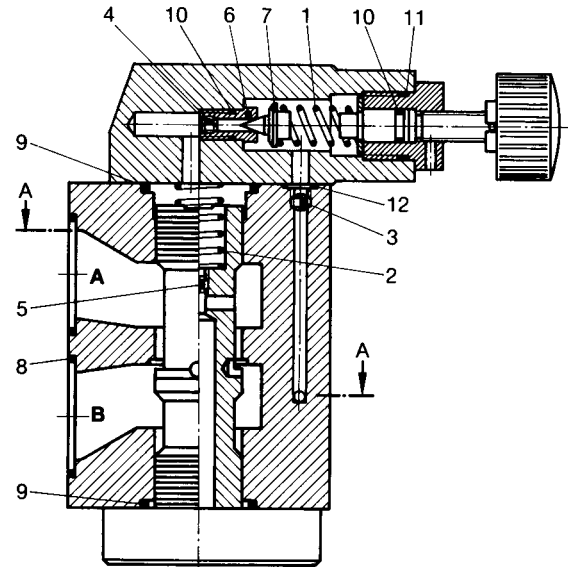


NG	b ₁	b ₂	b ₃	b ₄	b ₅	b ₆	b ₇	b ₈	b ₉	b ₁₀	b ₁₁	b ₁₂	b ₁₃	b ₁₄	d ₁	d ₂
10	130	11,5	107	31,7	7,9	33,3	58,7	66,6	28	53,5	79	107	12	83	G 1/2	10
25	147	11,5	124	33,8	6,4	39,7	73	79,4	26,7	62	97,3	124	10	103	G 1	20
32	160	10,8	138,5	31,6	3,9	48,4	92,9	96,8	24,7	69,2	113,7	138,5	9	120	G11/2	32

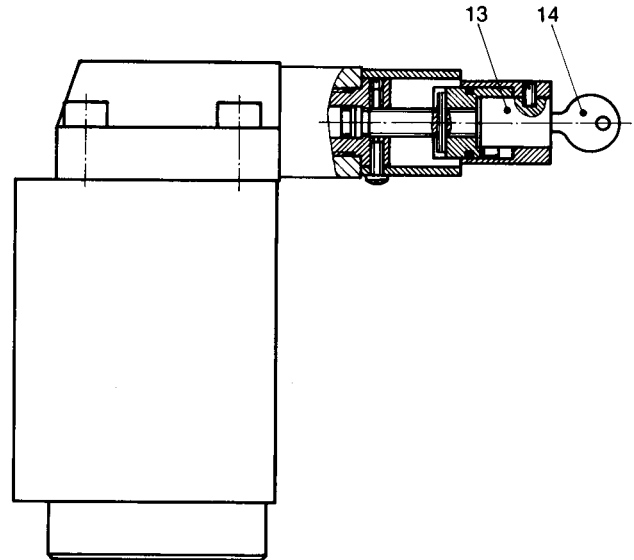
NG	h ₁	h ₄	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	l ₁₀	l ₁₁	l ₁₂	l ₁₃	l ₁₄	l ₁₅	l ₁₆
10	29	8,5	75	16,1	42,8	7,1	21,4	11	-	21,4	35,7	3	21,4	21,4	39,8	73	15	42,8
25	38	13,5	112	25,8	60,4	11,2	20,6	15,8	-	39,7	49,2	2,2	20,6	39,7	58,2	110	25	60,4
32	43	18,5	145	30,5	84	16,6	24,5	21,3	42	59,5	67,7	6	24,5	59,5	78	142	29	84

Spare parts drawings

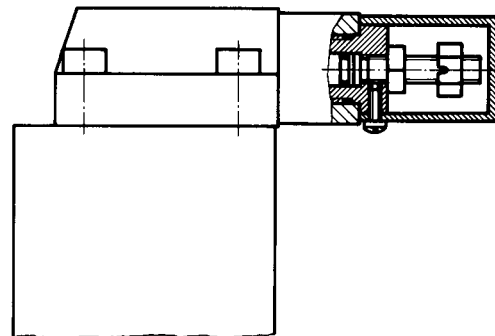
D M K..H...



D M K..HV...



D M K..HK...



Spare parts (Number of pieces)

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
1	Spring Pressure stage 70 Pressure stage 90:	1 1 1	1 1 1	1 1 1	0701810 0701853
2	Spring	1	-	-	0722318
2	Spring	-	1	-	0722319
2	Spring	-	-	1	0722320
3	Nozzle (ø 1,2 mm)	2	2	2	0567676
4	Nozzle (ø 1,1 mm)	1	1	1	0568648
5	Nozzle (ø 0,8 mm)	1	1	1	0498416
6	Valve seat	1	1	1	0726179
7	Cone	1	1	1	0499833
8	O-ring (17,1 x 2,6)	2	-	-	0701290
8	O-ring (28,2 x 2,6)	-	2	-	0701297
8	O-ring (37,7 x 3,5)	-	-	2	0701350
9	O-ring (20,4 x 1,8)	1	-	-	0701259
9	O-ring (28,2 x 3,5)	-	2	-	0701344
9	O-ring (36,1 x 3,5)	-	-	2	0701349

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
10	O-ring (77,7 x 1,8)	2	2	2	0701621
11	O-ring (20,4 x 1,8)	1	1	1	0701259
12	O-ring (9,2 x 1,8)	3	3	3	0701252
13	Lock cylinder with key	1	1	1	0568519
14	Key	1	1	1	0660051

Spare parts kits

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
8...12	Spare parts	1	-	-	0726550
8...12	Spare parts	-	1	-	0726699
8...12	Spare parts	-	-	1	0726645

Mounting bolts

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
-	Cylinder bolt (M10 x 90 DIN 912-10.9)	4	4	-	0700462
-	Cylinder bolt (M10 x 100 DIN 912-10.9)	-	-	6	0700465

Notes:
