

Pressure Relief Valves NG 10, 25 and 32



Systemtechnik
GmbH

indirectly-controlled, interface to DIN 24 340 and ISO 6264

Sequence Valves NG 10, 25 and 32

indirectly-controlled, interface of pressure relief valve
to DIN 24 340 and ISO 6264

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

7501401.06.01.06

Description (standard units)

Design

The pressure relief valves of Type D B S and the sequence valves of Type D Z S are indirectly-controlled seat 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 6264.



Features

- High flow rating
- Insensitive to vibration
- Seat design insensitive to dirt

Type code

Pressure relief valve

D	...	S	001	...	O	...
	1		2	3	4	5		6		7

- 1 Operating characteristics: **B** – Pressure relief valve
Z – Sequence valve
- 2 Nominal size NG: **10**
25
32
- 3 Actuation: **H** – Manual setting
HV – Manual setting, lockable
HK – Set-screw with cover (can be lead sealed)
- 4 Line connection: **G** – Subplate, interface to DIN ISO
D – Subplate, interface to DIN ISO (valve interface not to DIN ISO)
- 5 Pressure setting range: **70** – Up to 100 bar
90 – Up to 315 bar
- 6 Engineering version: **3** – NG 10
2 – NG 25
5 – NG 32
- 7 Sealing material **O** – Perbunan
V – Viton

Subplate

P	DB ¹⁾	...	G	...	001	...	O	O
		1		2		3		

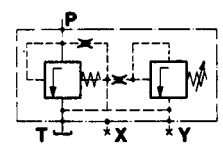
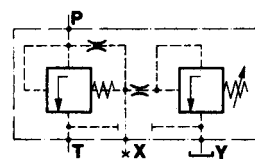
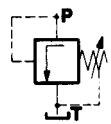
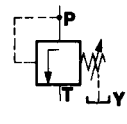
- 1 Nominal size NG: **10**
25
32
- 2 Line connection: **4** – G 1/2 NG 10
6 – G 1 NG 25
8 – G 1 1/2 NG 32
(Internal to DIN ISO 228/1)
- 3 Engineering version: **1**

¹⁾ When using subplate for the installation of sequence valves, make sure to remove screw plug at port „Y“.

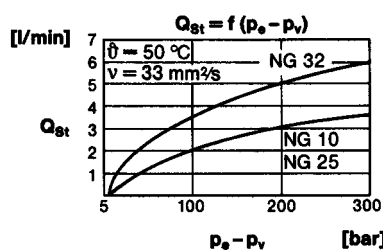
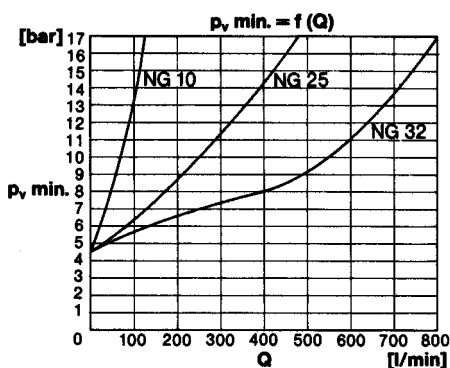
Parameters according to VDI 3276

Type designation	D B S 10..G	D B S 25..G	D B S 32..G	D Z S 10..G	D Z S 25..G	D Z S 32..G
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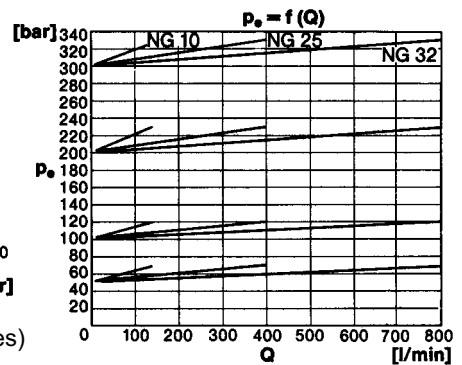
General parameters

Designation	Pressure relief valve	Sequence valve				
Symbol						
						
Design	Seat valve, indirectly-controlled					
Type of mounting	Flange					
Line connection	Subplate					
Mounting position	Optional					
Flow direction	From P to T					
Actuation	Manual setting					
Weight [kg]	6,5	8,6	14,2	6,5	8,6	14,2
Weight of subplate [kg]	2	4,7	7,5	2	4,7	7,5
Ambient temperature range ϑ_u [°C]	-20 ... +50					
Nominal size NG	10	25	32	10	25	32
Hydraulic parameters						
Operating pressure range p_e [bar]	... 315					
Adjustable pressure range p_v [bar]	p_v min.: see characteristic curve p_v max.: pressure stage 70: ... 100 pressure stage 90: ... 315					
Pressure fluid temperature ϑ_m max. [°C]	+70					
Viscosity range ν [mm ² /s]	12 ... 500					
Flow Q [l/min]	See characteristic curves					
Control oil Q_{St} [l/min]	0,5			See characteristic curve Q_{St}		

Characteristic curves



(Only for sequence valves)



Values for p_v min. refer to external drain of control oil, e.g. when using a remote pilot control and pressure at $T = 0$ bar.

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.

The subplate and, if necessary, mounting material for valve combinations must be ordered separately. Only O-rings are included in the delivery.

Example of how to order

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

Sequence valve:

Type No.: D Z S 10 H D 90 001 3 00
Cat. No.: **6015324**

Subplate:

Type No.: P DB 10 G 4 001 1 00
Cat. No.: **2852600**

Type survey (standard design)

Pressure relief valves

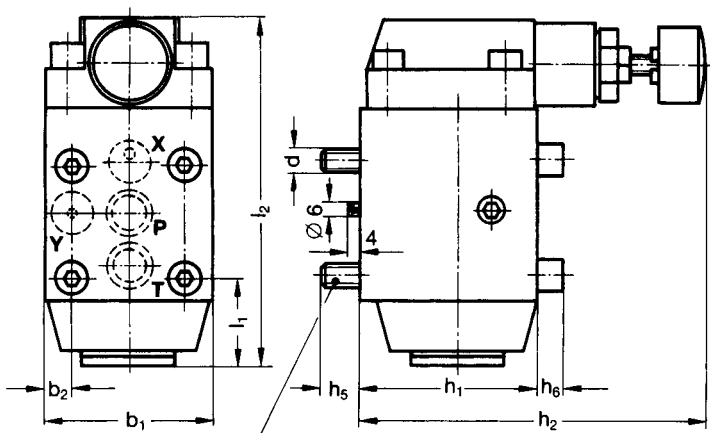
NG	Q [l/min]	p _v max. [bar]	Actuation	Line connection	Type	Cat. No.
10	See charac- teristic curve	100 315	Manual setting	Subplate G 1/2 P DB 10 G 4 001 1 0 0 2852600	D B S 10 H G 70 001 3 00 D B S 10 H G 90 001 3 00	6015321 6015322
25		100 315		Subplate G 1 P DB 25 G 6 001 1 0 0 2852400	D B S 25 H G 70 001 2 00 D B S 25 H G 90 001 2 00	6015389 6015390
32		100 315		Subplate G 1 1/2 P DB 32 G 8 001 1 0 0 2840125	D B S 32 H G 70 001 5 00 D B S 32 H G 90 001 5 00	6015459 6015460

Sequence valves

NG	Q [l/min]	p _v max. [bar]	Actuation	Line connection	Type	Cat. No.
10	See charac- teristic curve	100 315	Manual setting	Subplate G 1/2 P DB 10 G 4 001 1 0 0 2852600	D Z S 10 H D 70 001 3 00 D Z S 10 H D 90 001 3 00	6015323 6015324
25		100 315		Subplate G 1 P DB 25 G 6 001 1 0 0 2852400	D Z S 25 H D 70 001 2 00 D Z S 25 H D 90 001 2 00	6015391 6015392
32		100 315		Subplate G 1 1/2 P DB 32 G 8 001 1 0 0 2840125	D Z S 32 H D 70 001 5 00 D Z S 32 H D 90 001 5 00	6015461 6015462

Dimensional drawings

DBS .. H ... / DZS .. H ...



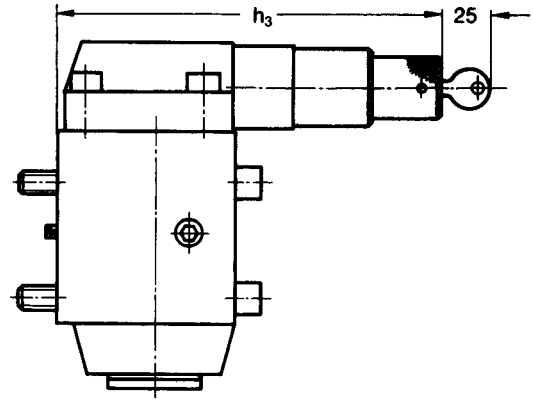
tightening torque
 $M_A = 110 \text{ Nm}$ for screw size M12
 270 Nm for screw size M16
 370 Nm for screw size M18

NG	b1	b2	d	h1	h2	h3	h4	h5	h6	l1	l2
10	80	13	M12	84	165	187	167	16	12	49	174
25	101	15,5	M16	88	168	190	170	22	16	36	184
32	120	18,7	M18	98	179	201	181	22	18	50	227

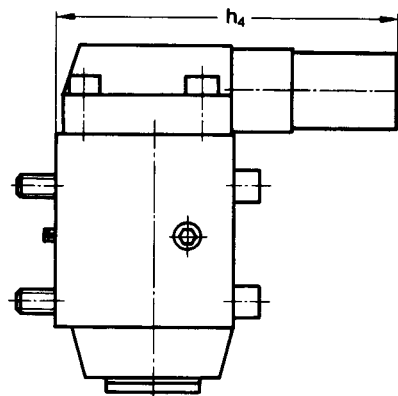
Subplates

G 1/2 with interface to DIN 24340-E10 and ISO 6264-AR-06-2-A
 G 1 with interface to DIN 24340-E25 and ISO 6264-AS-08-2-A
 G 1 1/2 with interface to DIN 24340-E32 and ISO 6264-AT-10-2-A

DBS .. HV ... / DZS .. HV ...



DBS .. HK ... / DZS .. HK ...



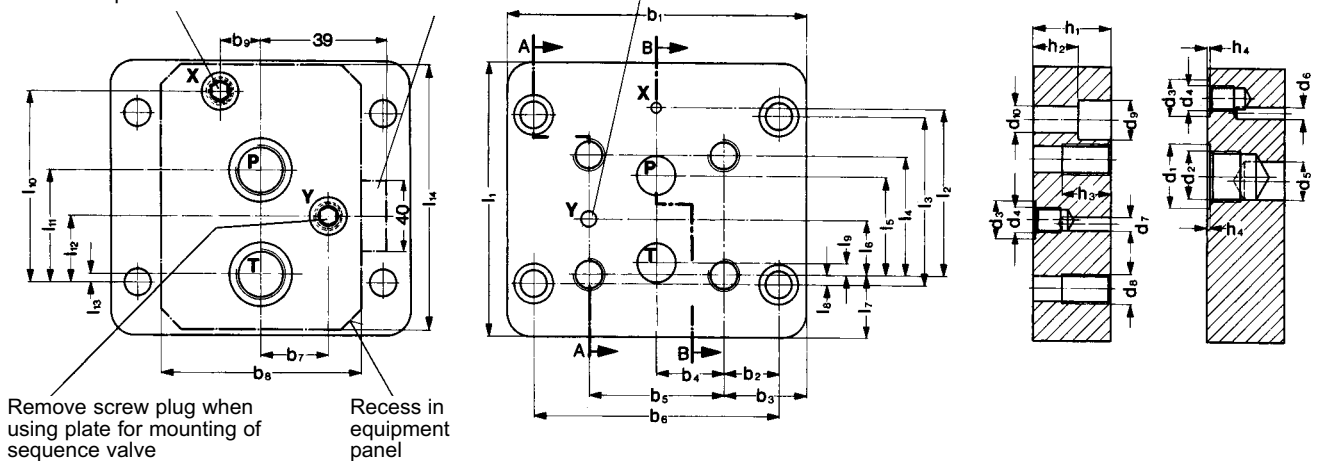
Remove screw plug when using a remote pilot control

Only for NG 10

Position of guide pin

Section A-A

Section B-B



NG	b1	b2	b3	b4	b5	b6	b7	b8	b9	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10
10	80	4	13	27	54	62	27	42	0	27	G 1/2	19	G 1/4	10	5	7,3	M12	17,5	11
25	155	28,5	42,5	35	70	127	35	105	0	40	G 1	19	G 1/4	20	6	7,3	M16	20	14
32	173,5	31,8	45,5	41,3	82,6	146	41,3	110	45	56	G 1 1/2	19	G 1/4	32	6	7,3	M18	20	14

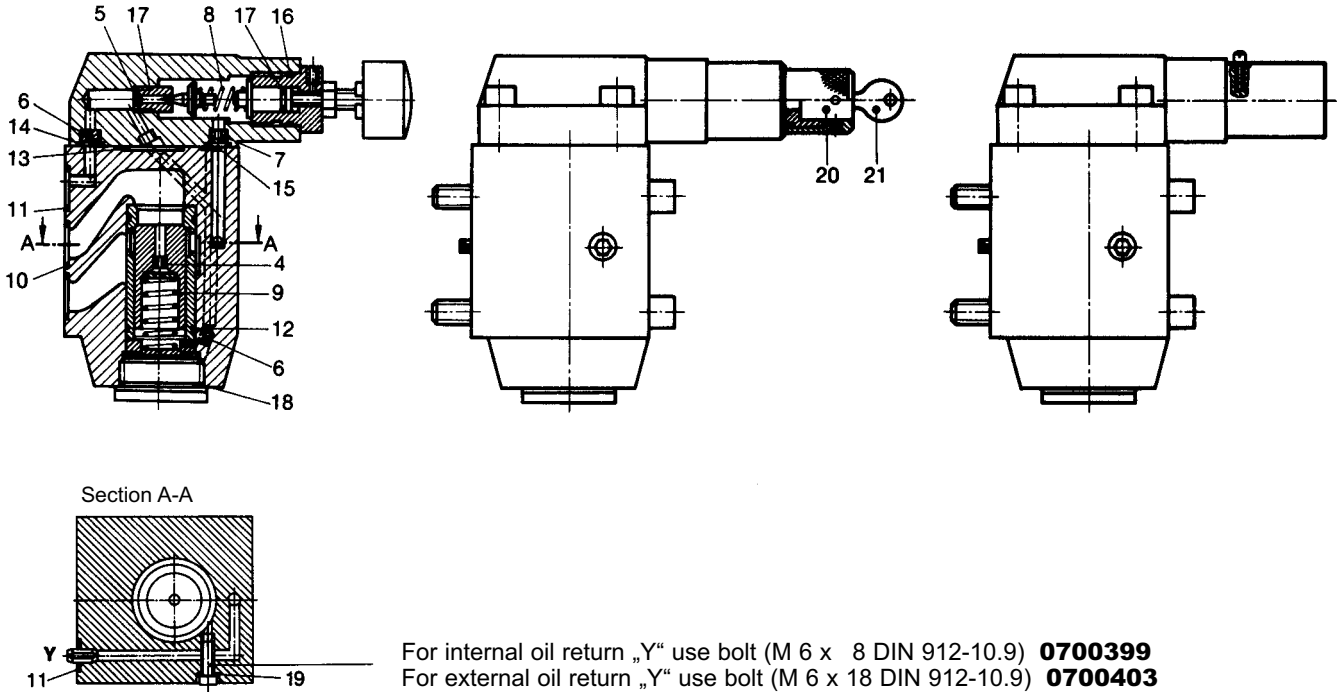
NG	h1	h2	h3	h4	l1	l2	l3	l4	l5	l6	l7	l8	l9	l10	l11	l12	l13	l14
10	32	18	20	0,5	121	54	103	54	31,8	31,8	33,5	24,5	6,4	83,3	52,8	63	15,8	117
25	40	23,5	25	0,5	140	90,5	85,7	66,7	55,6	33,3	27	0	11,1	97,5	57,5	33,3	4,1	135
32	55	25	25	0,5	153,5	120,7	114,3	88,9	76,2	44,5	20	0	12,7	113,7	93,2	47	21,7	150

Spare part drawings

DBS .. H ... / DZS .. H ...

DBS .. HV ... / DZS .. HV ...

DBS .. HK ... / DZS .. HK ...



For internal oil return „Y“ use bolt (M 6 x 8 DIN 912-10.9) **0700399**
 For external oil return „Y“ use bolt (M 6 x 18 DIN 912-10.9) **0700403**

Spare parts (Number of pieces)

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
4	Nozzle (Ø 0,7) perm. glued	1	1	-	0498419
4	Nozzle (Ø 0,8) perm. glued	-	-	1	0498416
5	Nozzle (Ø 1,1)	1	1	1	0568648
6	Nozzle (Ø 1,0)	2	2	2	0567675
7	Nozzle (Ø 1,2)	1	1	1	0567676
8	Spring for pressure stage 70: for pressure stage 90:	1 1	1 1	1 1	0701810 0701853
9	Spring	1	1	-	0720773
9	Spring	-	-	1	0721767
10	O-ring (17,1 x 2,6)	2	-	-	0701290
10	O-ring (29,8 x 2,6)	-	2	-	0701298
10	O-ring (40,9 x 2,6)	-	-	2	0701305
11	O-ring (15,6 x 1,8)	2	-	-	0701256
11	O-ring (9,2 x 1,8)	-	2	2	0701252
12	O-ring (28,3 x 2,6)	2	2	-	0701519
12	O-ring (39,4 x 2,6)	-	-	2	0701524
13	O-ring (29,9 x 1,8)	1	1	1	0701265
14	O-ring (10,8 x 1,8)	2	2	2	0701253
15	O-ring (7,7 x 1,8)	1	1	1	0701251
16	O-ring (20,4 x 1,8)	1	1	1	0701259
17	O-ring (7,7 x 1,8)	2	2	2	0701621

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
18	Screw plug G 1 1/4	1	1	-	0701227
18	Screw plug M 48 x 2	-	-	1	0659745
19	Usit-ring (6,7 x 10 x 1)	1	1	1	0655254
20	Lock cylinder with key	1	1	1	0568519
21	Key	1	1	1	0660051

Mounting bolts

Part	Designation	NG 10	NG 25	NG 32	Cat. No.
-	Cylinder bolt (M 12 x 100 DIN 912-10.9)	4	-	-	0700480
-	Cylinder bolt (M 16 x 110 DIN 912-10.9)	-	4	-	0700500
-	Cylinder bolt (M 18 x 120 DIN 912-10.9)	-	-	4	0700508

Spare parts kits

1 set of spare parts consists of parts 10 to 18	NG 10	NG 25	NG 32	Cat. No.
	-	-	-	0727816
	-	NG 25	-	0727817
	-	-	NG 32	0727818