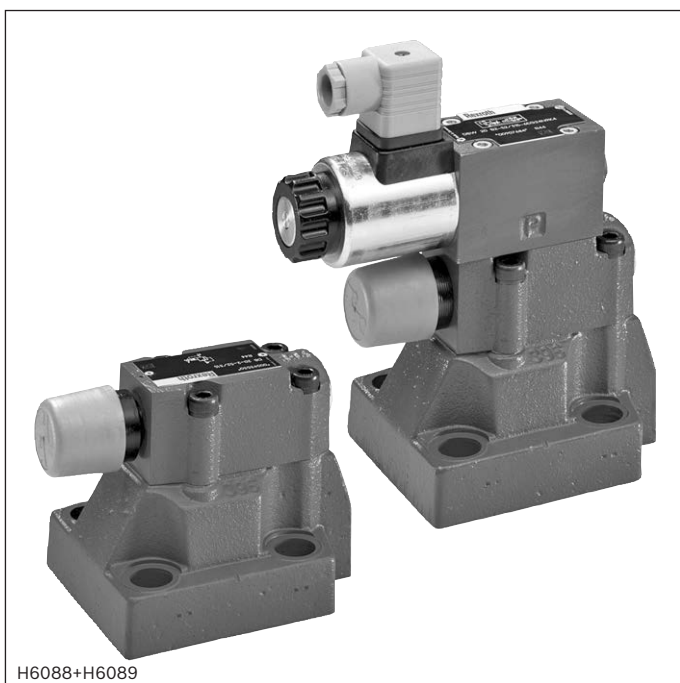


## Pressure relief valve, pilot-operated

### Type DB and DBW



- ▶ Size 10 ... 32
- ▶ Component series 5X
- ▶ Maximum operating pressure 350 bar
- ▶ Maximum flow 650 l/min



#### Features

- ▶ For subplate mounting
- ▶ Porting pattern according to ISO 6264-06-09 (NG10), ISO 6264-08-13 (NG25) and ISO 6264-10-17 (NG32)
- ▶ For threaded connection
- ▶ Solenoid-actuated unloading via an installed directional spool valve or directional seat valve
- ▶ High-power solenoid
- ▶ Switching shock damping, optional (DBW type only)
- ▶ Corrosion-protected design
- ▶ CE conformity according to the Low-Voltage Directive 2014/35/EU for electrical voltages > 50 VAC or > 75 VDC
- ▶ Solenoid coil as approved component with UR marking according to UL 906, edition 1982, optional

#### Contents

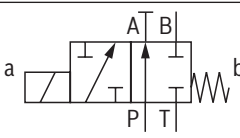
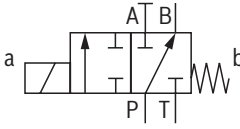
Features	1
Ordering code	2, 3
Symbols	4
Function, section	5, 6
Technical data	7, 8
Characteristic curves	9, 10
Dimensions	11 ... 15
Accessories	21
General information	21
Further information	22

#### **Type-examination tested safety valve type DB(W)...E, Component series 5X, according to the Pressure Equipment Directive 2014/68/EU**

Ordering code	16
Deviating technical data	17
Safety instructions	17
Characteristic curves	18 ... 20

**Ordering code**

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
<b>DB</b>								<b>5X</b>	<b>/</b>							<b>K4</b>					

01	Pressure relief valve	<b>DB</b>
02	<b>Without</b> directional valve	<b>no code</b> ◊
	<b>With</b> attached directional valve	<b>W</b> ◊
03	Pilot-operated valve (complete)	<b>no code</b> ◊
	Pilot control valve <b>without</b> main spool insert (do <b>not</b> enter any size)	<b>C</b>
	Pilot control valve <b>with</b> main spool insert (enter size 10 or 30)	<b>C</b>
	Pilot control valve <b>without</b> main spool insert for subplate mounting (do <b>not</b> enter any size)	<b>T</b> <sup>1)</sup>
04	<b>- Size 10</b>	
	Subplate mounting "no code"	<b>10</b> ◊
	Threaded connection "G" (G1/2)	<b>10</b>
	<b>- Size 16</b>	
	Threaded connection "G" (G3/4)	<b>15</b>
	<b>- Size 25</b>	
	Subplate mounting "no code"	<b>20</b> ◊
	Threaded connection "G" (G1)	<b>20</b>
	Threaded connection "G" (G1 1/4)	<b>25</b>
	<b>- Size 32</b>	
Subplate mounting "no code"	<b>30</b> ◊	
Threaded connection "G" (G1 1/2)	<b>30</b>	
05	 normally closed	<b>A</b> <sup>2)</sup> ◊
	 normally open	<b>B</b> <sup>2)</sup> ◊

**Type of connection**

06	Subplate mounting or cartridge valve	<b>no code</b> ◊
	Threaded connection	<b>G</b>

**Adjustment type for pressure adjustment**

07	Rotary knob (not for version "C" and "T")	<b>1</b>
	Sleeve with hexagon and protective cap	<b>2</b> ◊
	Lockable rotary knob with scale	<b>3</b> <sup>3)</sup>
	Rotary knob with scale	<b>7</b>
08	Main spool Ø24 mm (all sizes)	<b>-</b> ◊
	Main spool Ø28 mm (only NG32)	<b>N</b>
09	Component series 50 ... 59 (50 ... 59: unchanged installation and connection dimensions)	<b>5X</b>

**Pressure rating**

10	Set pressure up to 50 bar	<b>50</b>
	Set pressure up to 100 bar	<b>100</b> ◊
	Set pressure up to 200 bar	<b>200</b> ◊
	Set pressure up to 315 bar	<b>315</b> ◊
	Set pressure up to 350 bar	<b>350</b> ◊

## Ordering code

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
<b>DB</b>								<b>5X</b>	/							<b>K4</b>					

### Pilot oil supply and pilot oil return (see also Symbols on page 4)

11	Internal pilot oil supply and pilot oil return	- 4) ◇
	External pilot oil supply, internal pilot oil return 5)	<b>X</b>
	Internal pilot oil supply, external pilot oil return	<b>Y</b>
	External pilot oil supply and pilot oil return 5)	<b>XY</b>
12	Standard version	<b>no code</b> ◇
	Valve for minimum cracking pressure (not for version without main spool insert and not suitable for mutual relief function)	<b>U</b> 6)
13	<b>Without</b> switching shock damping	<b>no code</b> ◇
	<b>With</b> switching shock damping (only version "DBW")	<b>S</b>
14	<b>Without</b> directional valve	<b>no code</b> ◇
	<b>With</b> directional spool valve (data sheet 23178)	<b>6E</b> 2) ◇
	<b>With</b> directional seat valve (data sheet 22058)	<b>6SM</b> 2)
15	Direct voltage 24 V	<b>G24</b> 2) ◇
	Alternating voltage 230 V 50/60 Hz	<b>W230</b> 2)
16	<b>With</b> concealed manual override (standard)	<b>N9</b> 2) ◇
	<b>With</b> manual override	<b>N</b> 2)
	<b>Without</b> manual override	<b>no code</b>

### Electrical connection

17	<b>Without</b> mating connector; connector DIN EN 175301-803	<b>K4</b> 2; 7)
18	Nozzle Ø 1.2 mm in channel B of the directional spool valve (version "6E")	<b>R12</b> 8)
	Nozzle Ø 1.2 mm in channel P of the directional seat valve (version "6SM")	<b>B12</b> 8)

### Corrosion resistance

19	None	<b>no code</b> ◇
	Improved corrosion protection (240 h salt spray test according to EN ISO 9227); (only version "2", however, without protective cap)	<b>J3</b>

### Seal material (observe compatibility of seals with hydraulic fluid used, see page 8)

20	NBR seals	<b>no code</b> ◇
	FKM seals	<b>V</b>

### Equipment Directive

21	<b>Without</b> type-examination procedure	<b>no code</b>
	Type-examination tested safety valves according to Pressure Equipment Directive 2014/68/EU 9)	<b>E</b>
22	Standard version	<b>no code</b> ◇
	Solenoid coil is an approved component with UR-marking according to UL 906	<b>=UR</b>

1) "DBT/DBWT" corresponds to "DBC/DBWC", however, with closed central bore

2) Ordering code only necessary with version with mounted directional valve ("DBW").

3) H-key with material no. **R900008158** is included in the scope of delivery.

4) Dash "-" only necessary with version with mounted directional valve ("DBW"), without specification of "U" or "S".


5) **Not** with version "DBC/DBWC"

6) Only possible up to pressure rating 315 bar

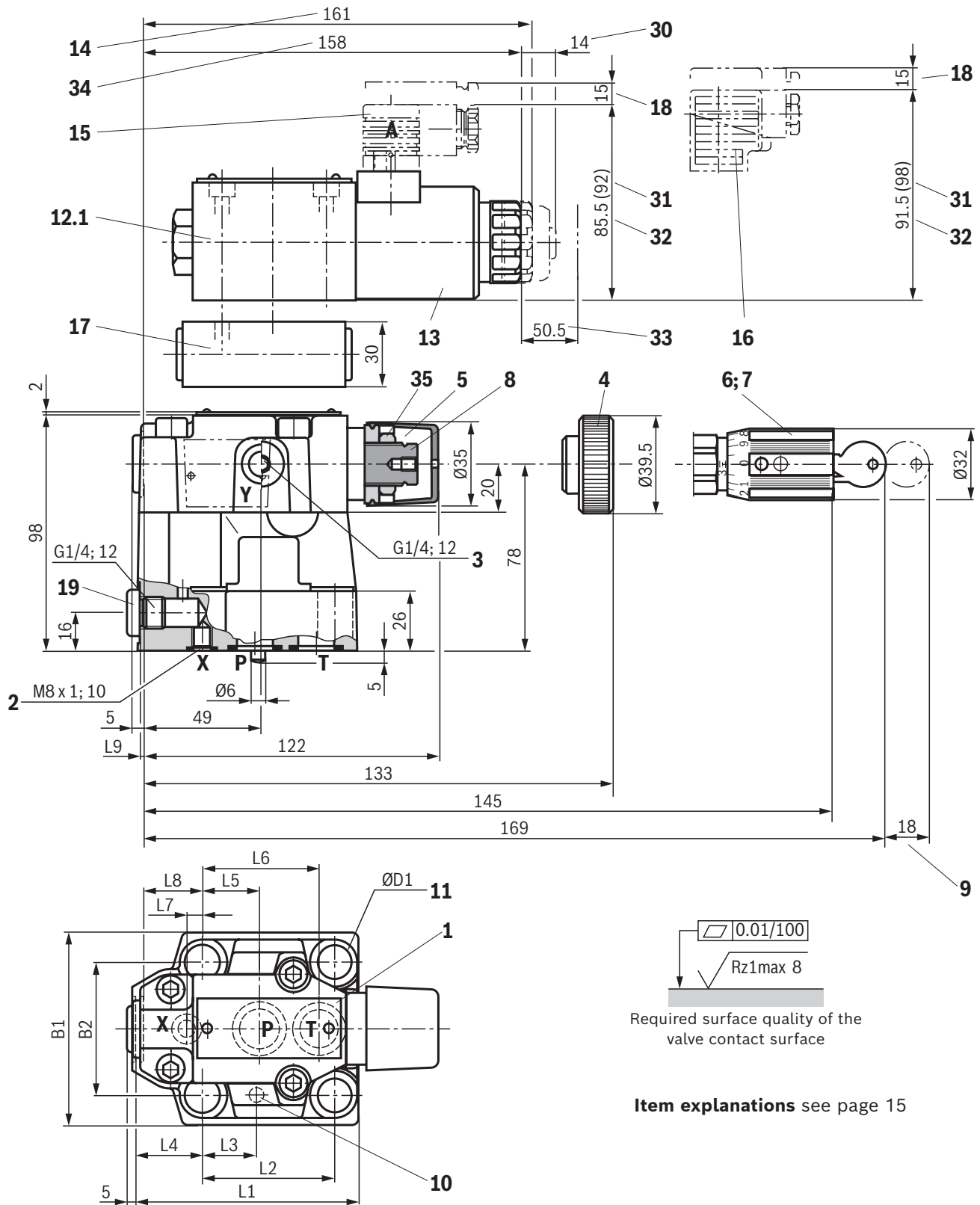
7) Mating connectors, separate order, see page 21.

8) Ordering code only necessary with version with attached directional valve and switching shock damping ("DBW.../...S...").

9) See ordering code on page 16.

 **Notice:** ◇ = Preferred type

**Dimensions:** Subplate mounting with directional spool valve "DBW...6E"  
(dimensions in mm)



Required surface quality of the valve contact surface

Item explanations see page 15

Version	L1	L2	L3	L4	L5	L6	L7	L8	L9	B1	B2	ØD1
"DBW 10"	91	53.8	22.1	27.5	22.1	47.5	0	25.5	2	78	53.8	14
"DBW 20"	116	66.7	33.4	33.3	11.1	55.6	23.8	22.8	10.5	100	70	18
"DBW 30"	147.5	88.9	44.5	41	12.7	76.2	31.8	20	21	115	82.6	20