

Industrial
Hydraulics

Electric Drives
and Controls

Linear Motion and
Assembly Technologies

Pneumatics

Service
Automation

Mobile
Hydraulics

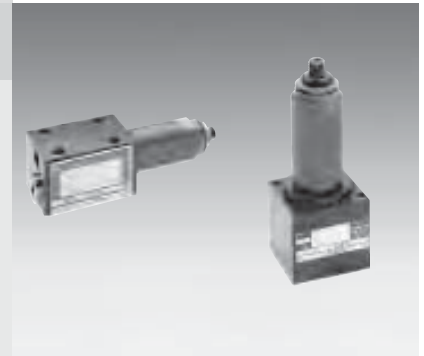
Rexroth
Bosch Group

Pressure relief valve, directly operated

RE 25408/01.05 1/6

Type DB6D

Nominal size 6
Unit series 1X
Maximum working pressure 315 bar
Maximum flow rate 60 l/min



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Features


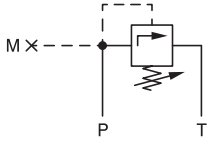
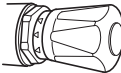

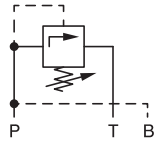



- For subplate mounting
- 3 pressure setting elements, choice of:
 - Sleeve with hexagon socket
 - Rotary knob, lockable, with scale
 - Rotary knob with scale

Ordering data and scope of delivery

	DB	6	D	W	- 1X /	V	*
Pressure relief valve	= DB						= Further information in plain text
Nominal size 6		= 6					No code = horizontal adjustment W65 = vertical adjustment
Directly operated			= D				V = FPM seals (other seals available on request)
Pressure relief in P-duct						= P	Note Take compatibility of seals and pressure fluid into account!
Pressure relief in P and B-ducts						= PB	
Mounting hole configuration to ISO 6264				= W			80 = max. setting pressure = 80 bar 160 = max. setting pressure = 160 bar 315 = max. setting pressure = 315 bar
Setting elements							1X = Unit series 10 to 19 (10 to 19: installation and connection dimensions unchanged)
Sleeve with hexagon socket						= 2	
Rotary knob, lockable, with scale ¹⁾						= 3	
Rotary knob with scale						= 7	

¹⁾ 2H key included in scope of delivery

Preferred types (available at short notice)

Type	Material No.	Setting	Symbols	
DB 6 DPW 2-1X/80V	0 811 105 215		 Horizontal	
DB 6 DPW 2-1X/160V	0 811 105 216			
DB 6 DPW 2-1X/315V	0 811 105 217			
DB 6 DPW 7-1X/80V	0 811 105 218			
DB 6 DPW 7-1X/160V	0 811 105 219			
DB 6 DPW 7-1X/315V	0 811 105 220			
DB 6 DPW 3-1X/80V	0 811 105 221			 Vertical
DB 6 DPW 3-1X/160V	0 811 105 222			
DB 6 DPW 3-1X/315V	0 811 105 223			
DB 6 DPBW 2-1X/80V W65	0 811 105 224			
DB 6 DPBW 2-1X/160V W65	0 811 105 225			
DB 6 DPBW 2-1X/315V W65	0 811 105 226			
DB 6 DPBW 7-1X/80V W65	0 811 105 227			
DB 6 DPBW 7-1X/160V W65	0 811 105 228			
DB 6 DPBW 7-1X/315V W65	0 811 105 229			
DB 6 DPBW 3-1X/80V W65	0 811 105 230			
DB 6 DPBW 3-1X/160V W65	0 811 105 231			
DB 6 DPBW 3-1X/315V W65	0 811 105 232			

Function, sectional diagram

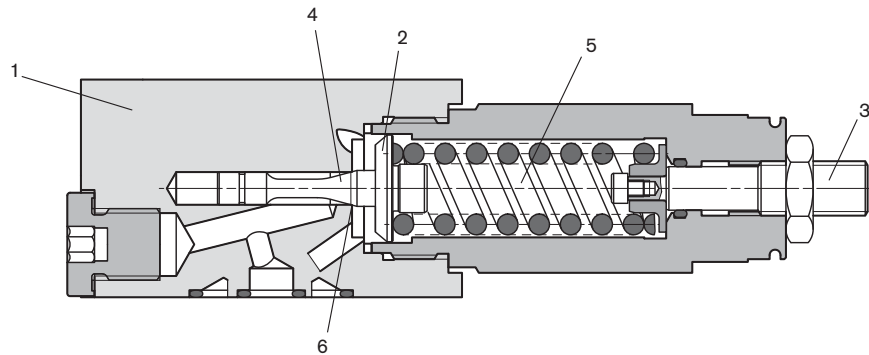
General

Type DB 6 D pressure valves are directly operated pressure relief valves.

They are used to limit the system pressure.

Pressure relief valves essentially consist of the main valve (1) with main piston insert (2) and the pressure setting element (3).

The pressure arising in the P-duct acts on the main piston (2). If the pressure in the P-duct exceeds the value set at the spring (5), the poppet (4) opens towards the spring (5) and the main piston (2) can then move against the spring. This causes pressure fluid to flow from duct P to T via the metering notch (6).



Technical data

General

Valve function	Pressure relief valve, directly operated		
Type of mounting	Subplate, mounting hole configuration NG6, ISO 6264		
Mounting position	Optional		
Ambient temperature range	°C	-25...+50	
Weight	Horizontal	kg	1.4
	Vertical	kg	1.1

Hydraulic

Pressure fluid	Mineral oil (HL, HLP) to DIN 51524, rapidly biodegradable pressure fluids to VDMA 24568 (also see RE 90221), HETG (rapeseed oil), HEPG (polyglycols), HEES (synthetic ester), other pressure fluids available on request		
Maximum permissible degree of contamination of pressure fluid Purity class to ISO 4406 (c)	Class 20/18/15 ¹⁾		
Pressure fluid temperature range	°C	-25...+80	
Seals	FPM (Viton® Dupont)		
Viscosity range	mm ² /s	10...500	
Max. setting pressure	bar	80, 160 or 315	
Max. working pressure	bar	315	
Max. flow rate	l/min	60	

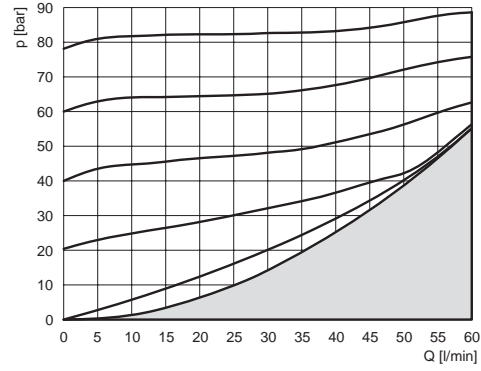
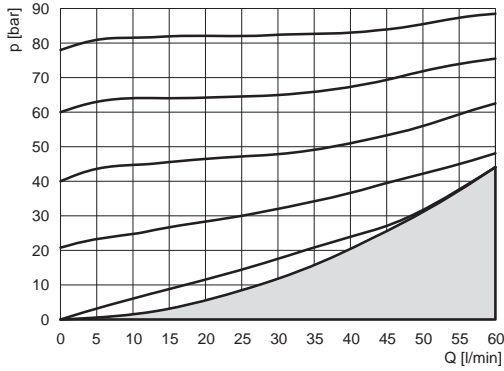
¹⁾ The purity classes stated for the components must be complied with in hydraulic systems. Effective filtration prevents problems and also extends the service life of components. For a selection of filters, see catalog sections RE 50070, RE 50076 and RE 50081.

Characteristic curves ($v = 35 \text{ mm}^2/\text{s}$)

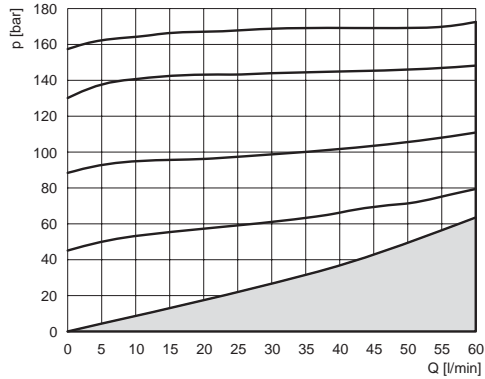
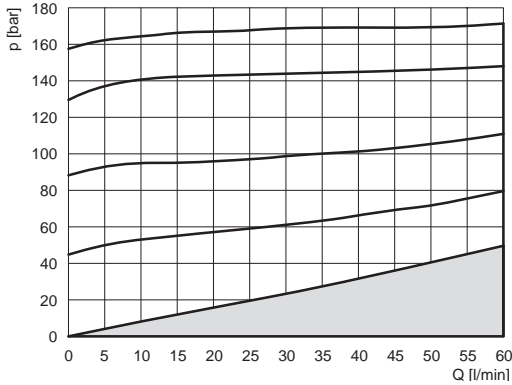
Horizontal setting

Vertical setting

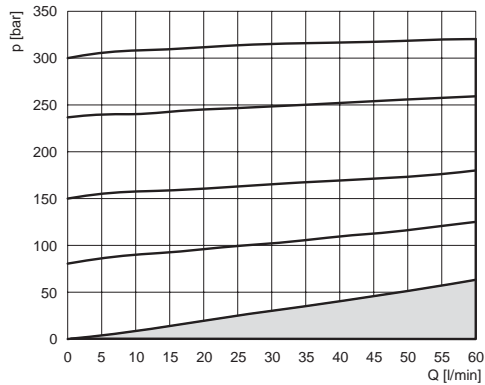
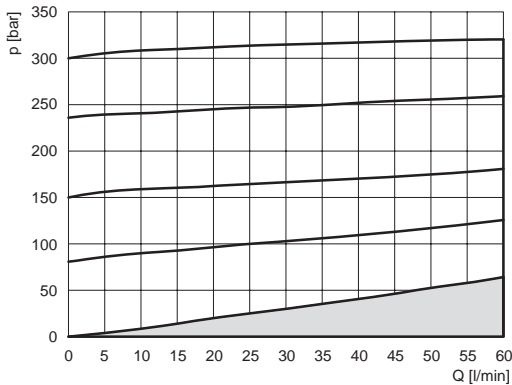
$p = 80 \text{ bar}$



$p = 160 \text{ bar}$

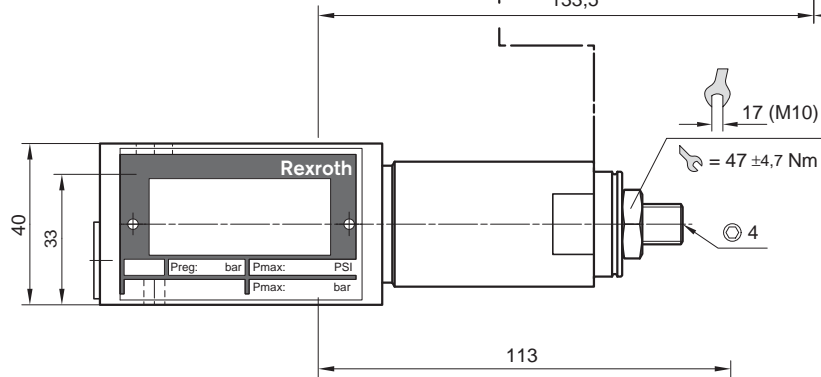
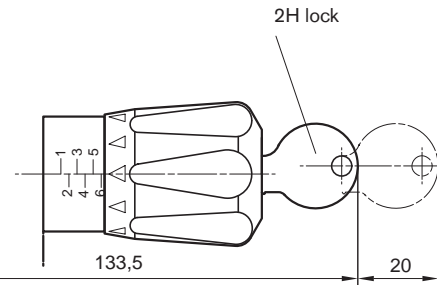


$p = 315 \text{ bar}$



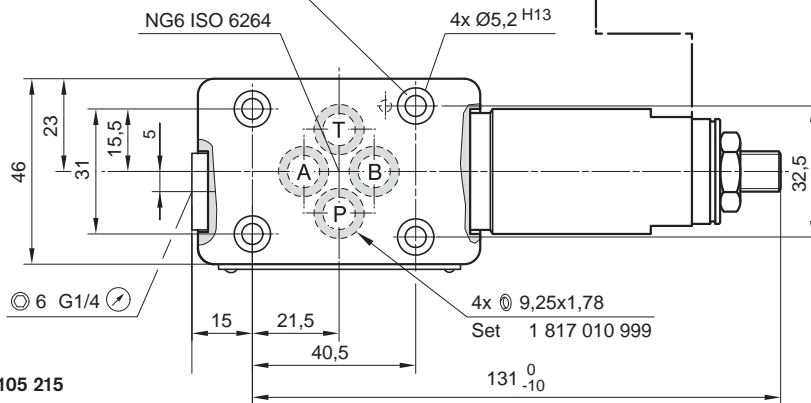
Unit dimensions (nominal dimensions in mm)

0 811 105 221
0 811 105 222
0 811 105 223



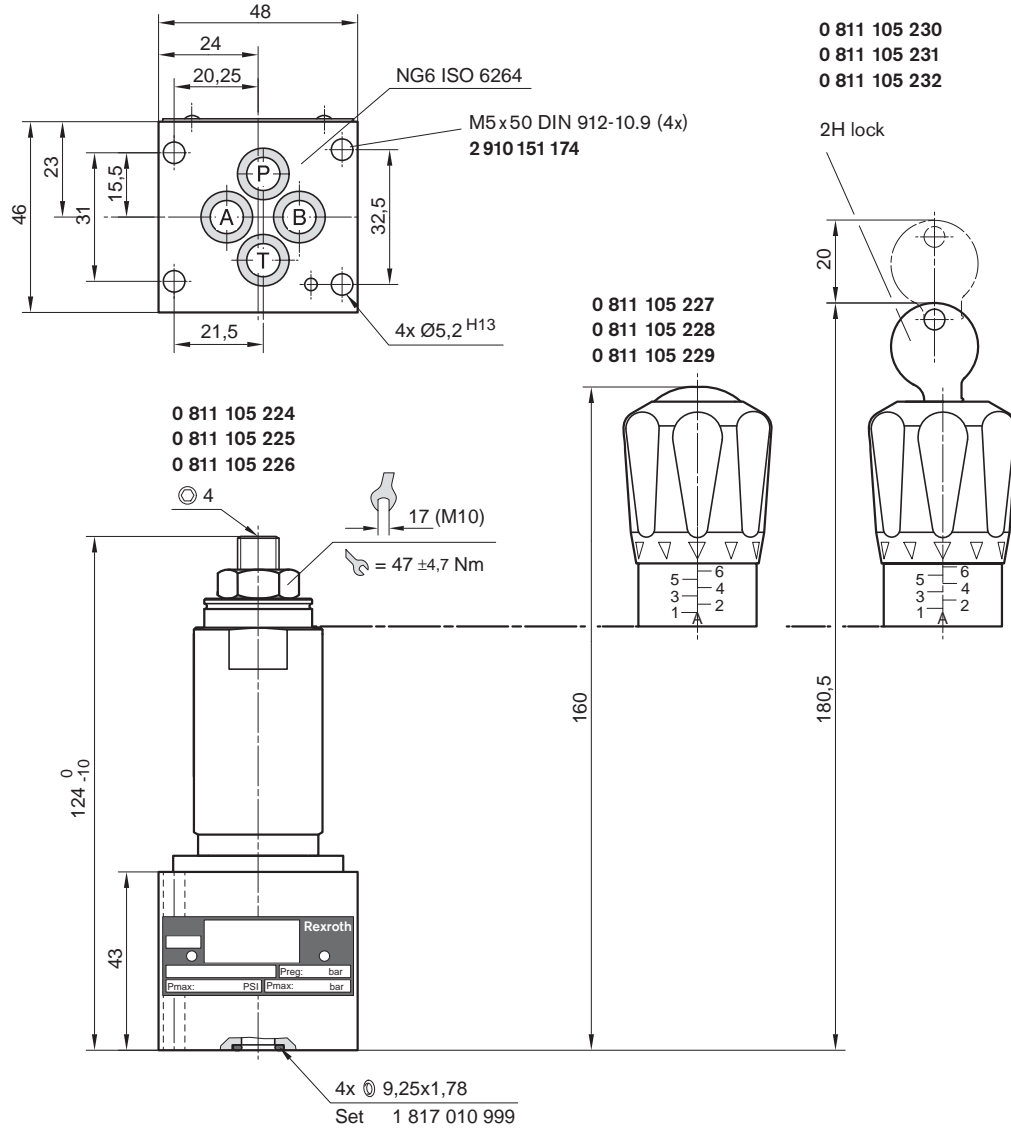
0 811 105 218
0 811 105 219
0 811 105 220

M5 x 40 DIN 912-10.9 (4x)
2910151170



0 811 105 215
0 811 105 216
0 811 105 217

Unit dimensions (nominal dimensions in mm)



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