Rexroth
Bosch Group

Pressure relief valve, directly operated

RE 25408/01.05 1/6

Type DB 6 D

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

Overview of contents

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**

Nominal size 6 **= 6**

Directly operated **= D**

Pressure relief in P-duct **= P**
Pressure relief in P and B-ducts **= PB**

Mounting hole configuration to ISO 6264 **= W**

Setting elements
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

1X = Unit series 10 to 19
(10 to 19: installation and connection dimensions unchanged)

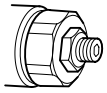
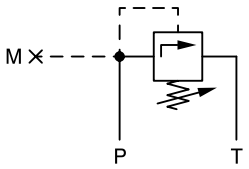
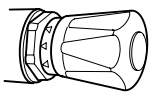
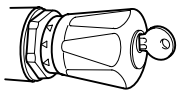
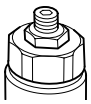
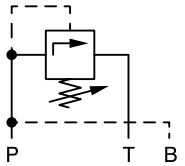
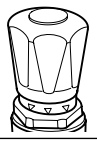
80 = max. setting pressure = 80 bar
160 = max. setting pressure = 160 bar
315 = max. setting pressure = 315 bar

V = FPM seals
(other seals available on request)
Note
Take compatibility of seals and pressure fluid into account!

No code = horizontal adjustment
W65 = vertical adjustment

= Further information in plain text

Preferred types (available at short notice)

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

Function, sectional diagram

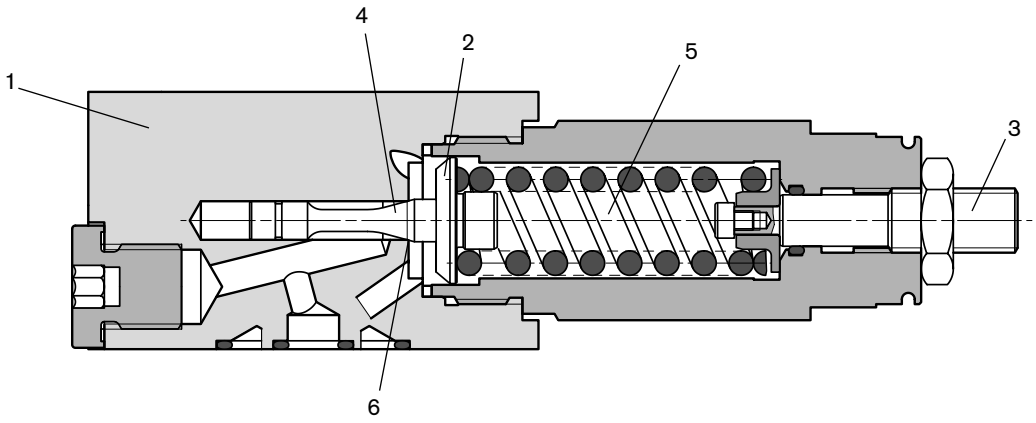
General

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

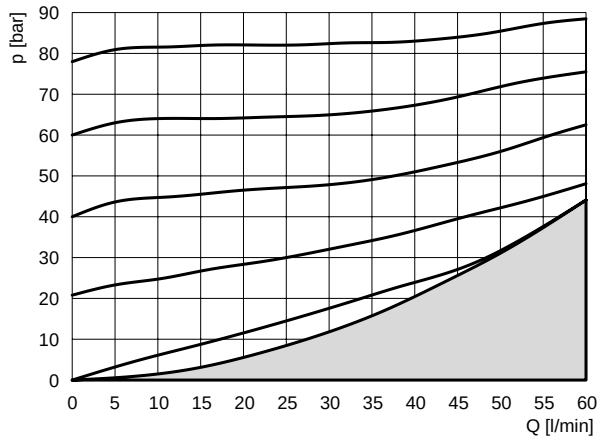
[1)] The purity classes stated for the components must be complied with in hydraulic systems.
Effective filtration prevents problems and also extends the service life of components.
For a selection of filters, see catalog sections RE 50070, RE 50076 and RE 50081.

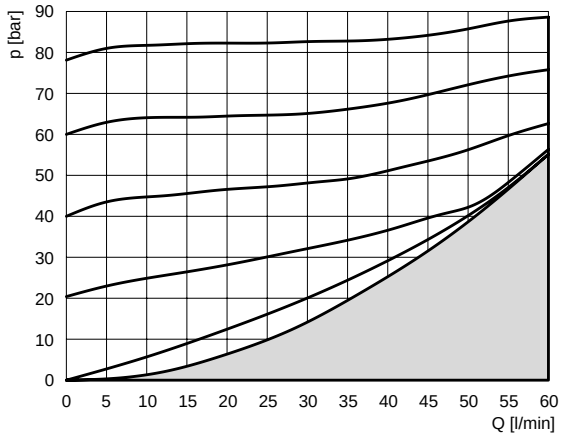
Characteristic curves ($\upsilon = 35$ mm²/s)

Horizontal setting

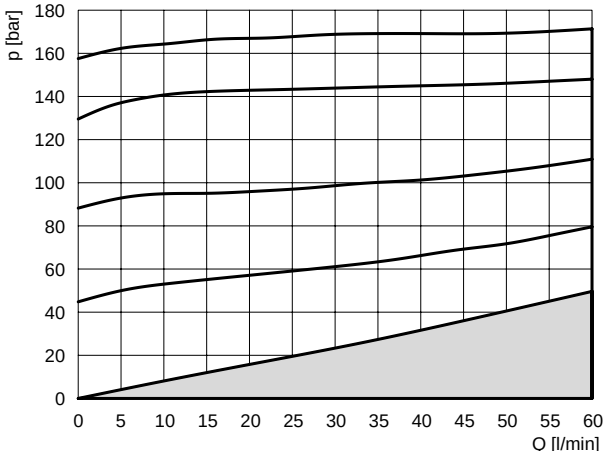
Vertical setting

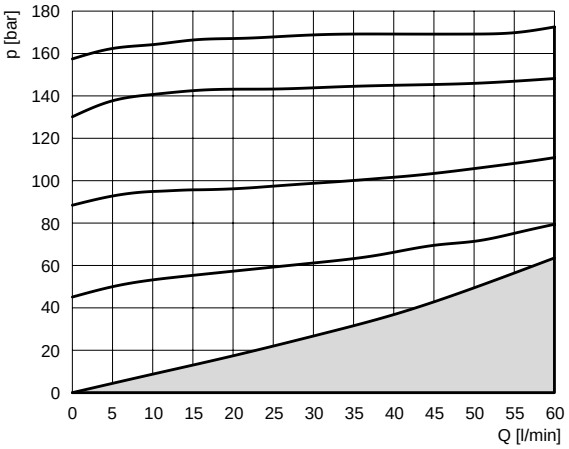
$p = 80$ bar



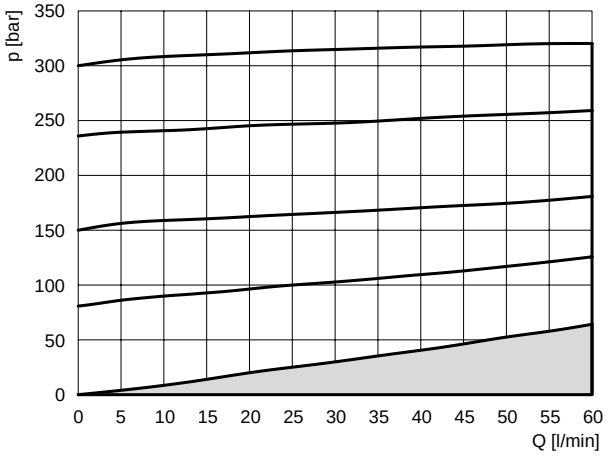


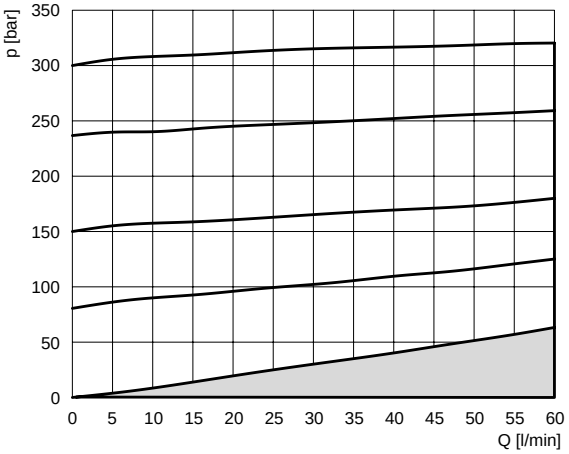
$p = 160$ bar





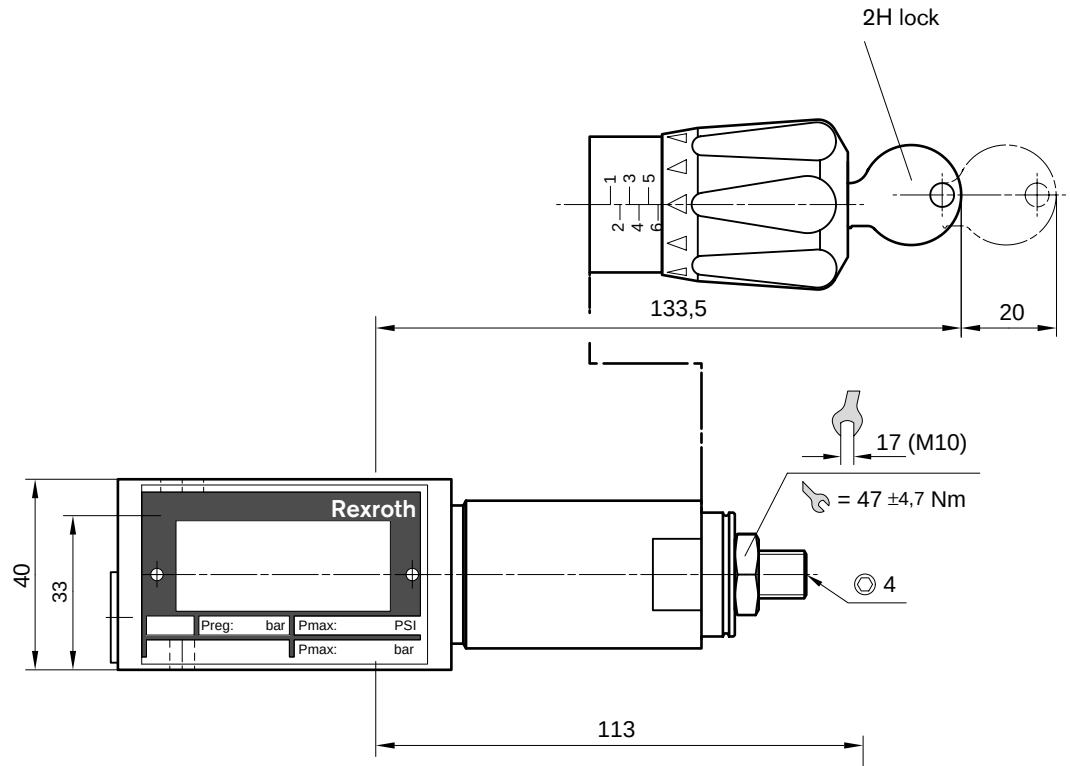
$p = 315$ bar



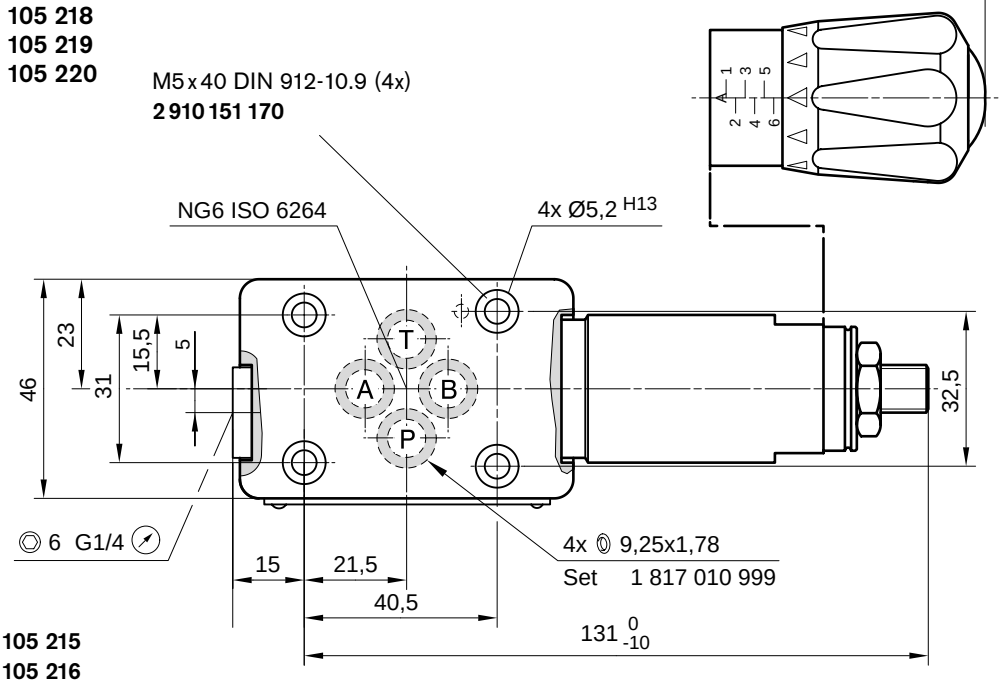


Unit dimensions (nominal dimensions in mm)

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

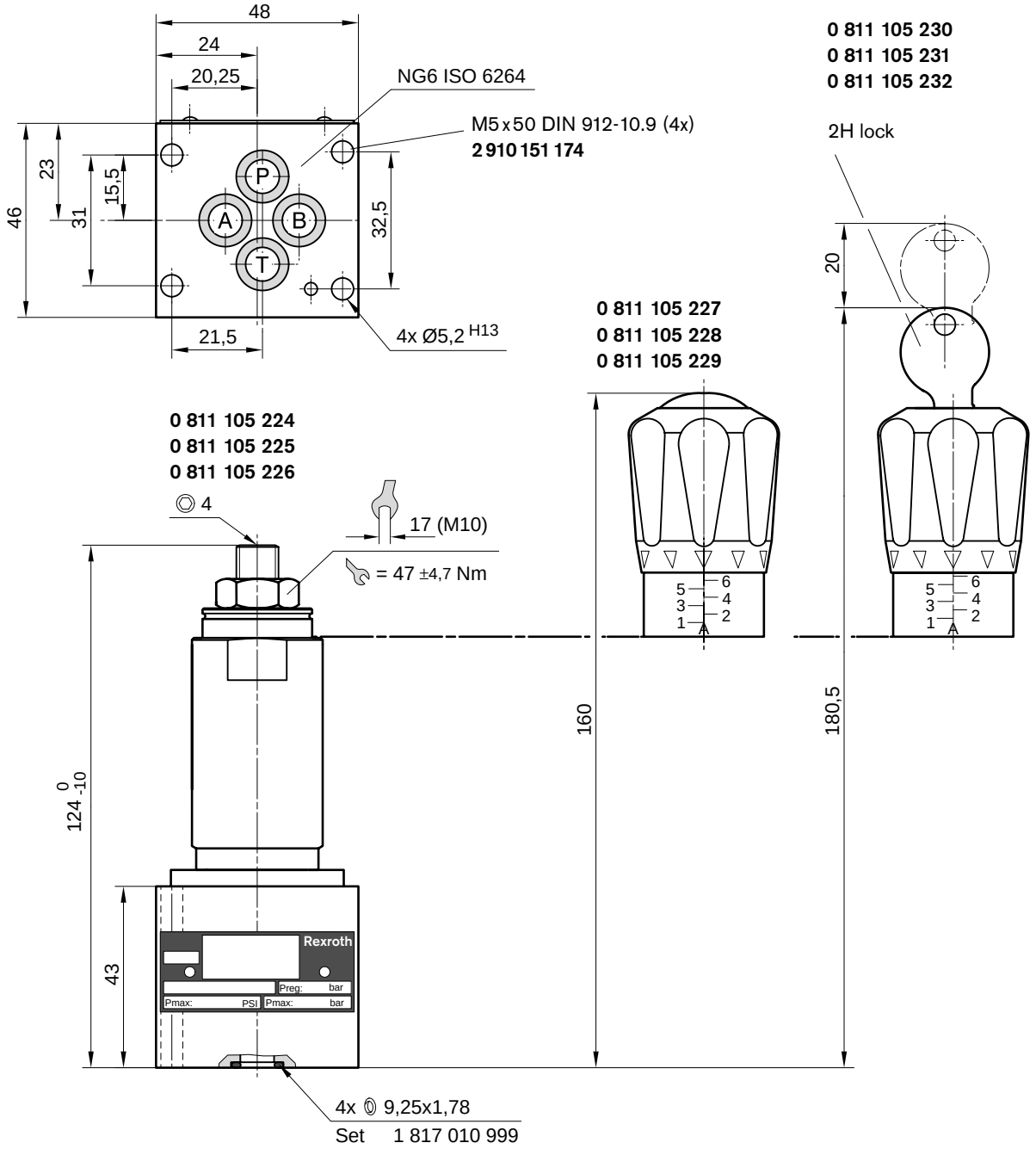


0 811 105 218
0 811 105 219
0 811 105 220



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

Unit dimensions (nominal dimensions in mm)



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Notes

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