

Pressure relief valves

RE 25 860/11.11

1/12

Replaces:

RE 25 860/10.10

Pressure relief valves

0532 ...
R 917 ...

Valves for line connections

Valves for block installation

$p_{\max} = 350 \text{ bar}$
 $Q_{\max} = 120 \text{ l/min}$



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Features

- Type of connection for pipeline installation and block installation
- Adjustment methods such as hand wheel, lead-seal capable, fixed, hand wheel with scale (with and without lock)

Application

In conveying and handling equipment, agricultural engineering, in municipal-vehicles and in general mechanical engineering.

Note

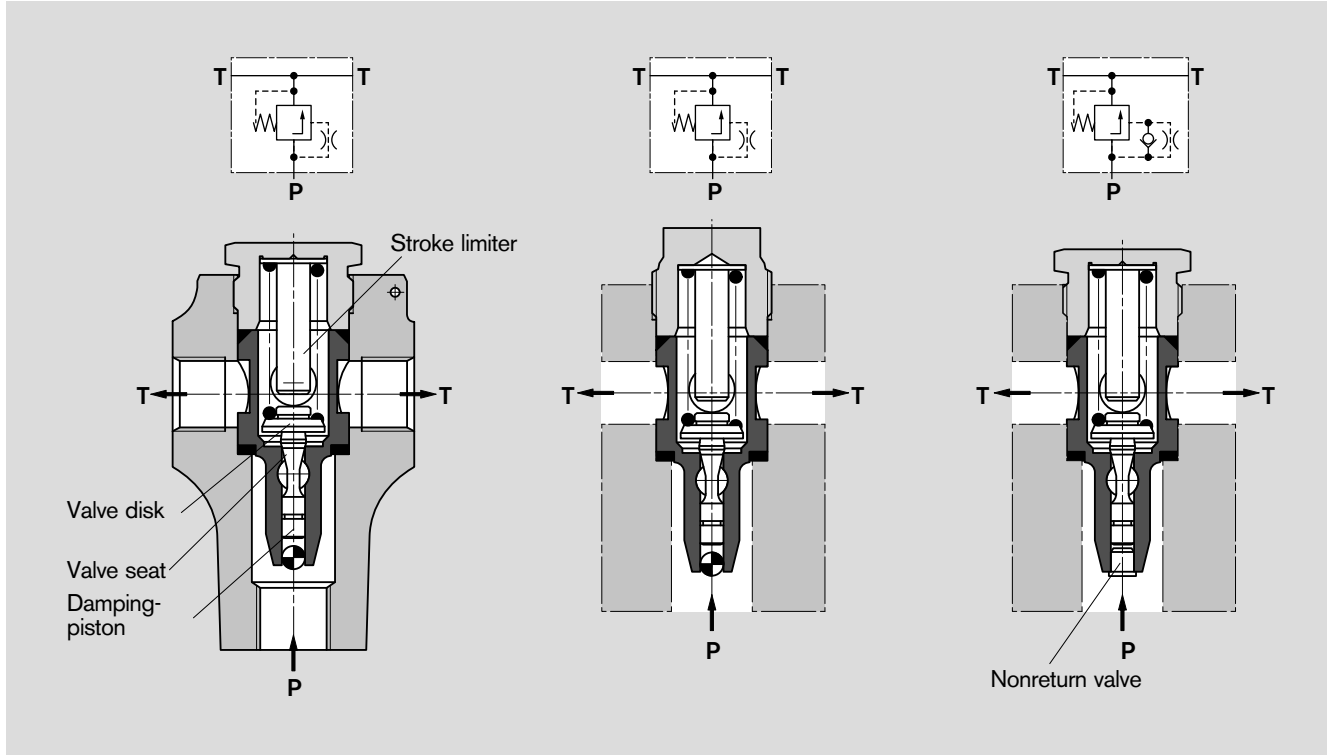
The versions "Safety valves TÜV German Technical Inspection Agency model approved" in accordance with the Pressure Equipment Directive 97/23/EG are used to safeguard hydraulic accumulators, see technical data sheet RDEF 50 153.

Function

This model series is based on a valve in seat design with damping piston. The punched valve seat serves to ensure high density, the damping piston prevents any valve vibration. It produces a flat control characteristic, i.e., even at an increasing flow rate the set opening pressure is for the most part maintained. This is achieved by the effect of the flow forces on the valve disk, whereby the valve continues to open as the flow rate increases.

Versatile version variants are available:

- Housing for pipeline installation with and without measuring connection.
- Valve cartridges for block installation.
- Various adjustment methods such as hand wheel, lead-seal capable, fixed, hand wheel with scale (with and without lock).
- Check valve before damping piston for fast response times.

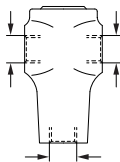



Technical data

Design	Seat valve with damping
Line connections	for pipeline installation and block installation
Installation position	Optional
Ambient temperature	–30...+80 °C
Pressure medium	Hydraulic oils based on mineral oil acc. to DIN/ISO, other, e.g. environmentally-compatible fluids available on request
Viscosity	10...800 mm ² /s permissible range 20...100 mm ² /s recommended range ...2000 mm ² /s for start permissible range
Pressure medium temperature	–30 °C...+80 °C with NBR sealings, NBR = Perbunan® –15 °C...+120 °C with FKM sealings, FKM = Viton®
Filtration	Oil contamination Class 19/16 in accordance with ISO/DIS 4406, or Class 10 in accordance with NAS 1638 to be achieved using filter $\beta_{25} = 75$
Direction of flow rate	shown by symbol or marking
Operating pressure For line installation	P: max. permissible 350 bar, depending on number of load changes and temperature. Counter values on request. T: max. permissible 210 bar (NBR) or 80 bar (FKM), depending on number of load changes and temperature. Counter values on request.
For block installation	P: In accordance with set pressure. T: NBR max. 210 bar, FM max. 80 bar
MTTFd:	max. 150 years, PRV with set value > 210 bar: B10 value on request
Cracking pressure (tolerance $p_{nom} +5\%$)	Set at flow 0.1 l/min
Leakage oil flow	Max. 1 cm ³ /min
Flow	Max. 120 l/min, depending on set pressure and line Ø, see chapter "Characteristics"

Pressure relief valves for line installation



Threaded port	Version		Seals	Set pressure * [bar]	Weight [kg]	Material No.			
<div>M 18 x 1,5</div> 	Fixed		NBR	10	0.9	0 532 001 031			
			FKM	10		0 532 001 115			
			NBR	12		0 532 001 156			
				15		0 532 001 004			
				20		0 532 001 012			
				25		0 532 001 011			
				30		0 532 001 014			
				40		0 532 001 027			
				50		0 532 001 020			
				60		0 532 001 018			
				70		0 532 001 005			
				80		0 532 001 006			
				90		0 532 001 026			
				100		0 532 001 007			
				110		0 532 001 024			
				140		0 532 001 008			
				140		R 917 002 956**			
				150		R 917 002 975**			
				150		0 532 001 009			
				170		0 532 001 028			
				180		0 532 001 022			
				190		0 532 001 021			
				200		0 532 001 023			
				210		0 532 001 013			
				210		0 532 001 154			
				210		R 917 002 960**			
				Fixed, with nonreturn valve				230	0 532 001 019
				Fixed				250	0 532 001 016
							300	0 532 001 030	

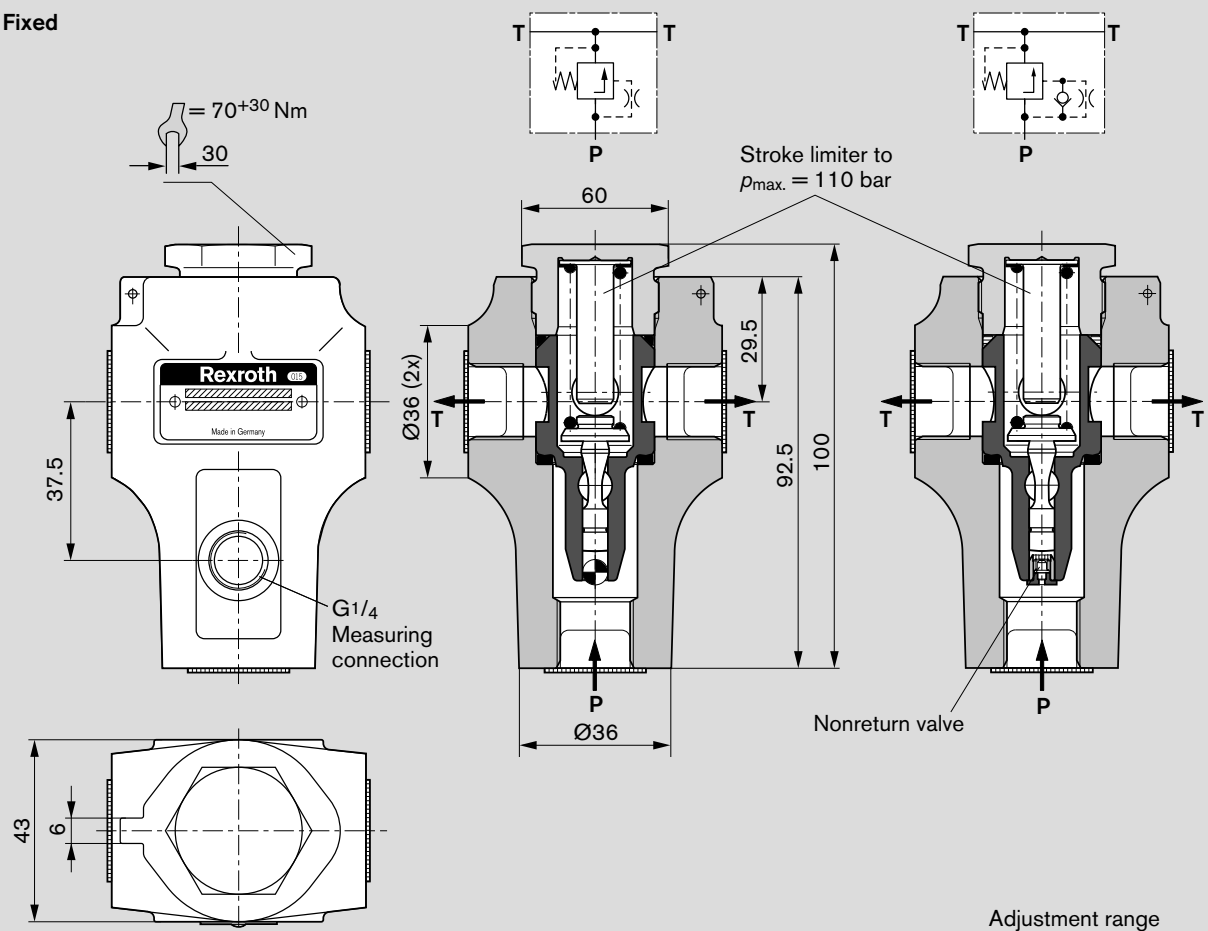
NBR = Perbunan[®], FKM = Viton[®]

* $p_{nom} + 5\%$ at $Q = 0.1$ l/min, with back flow unloaded

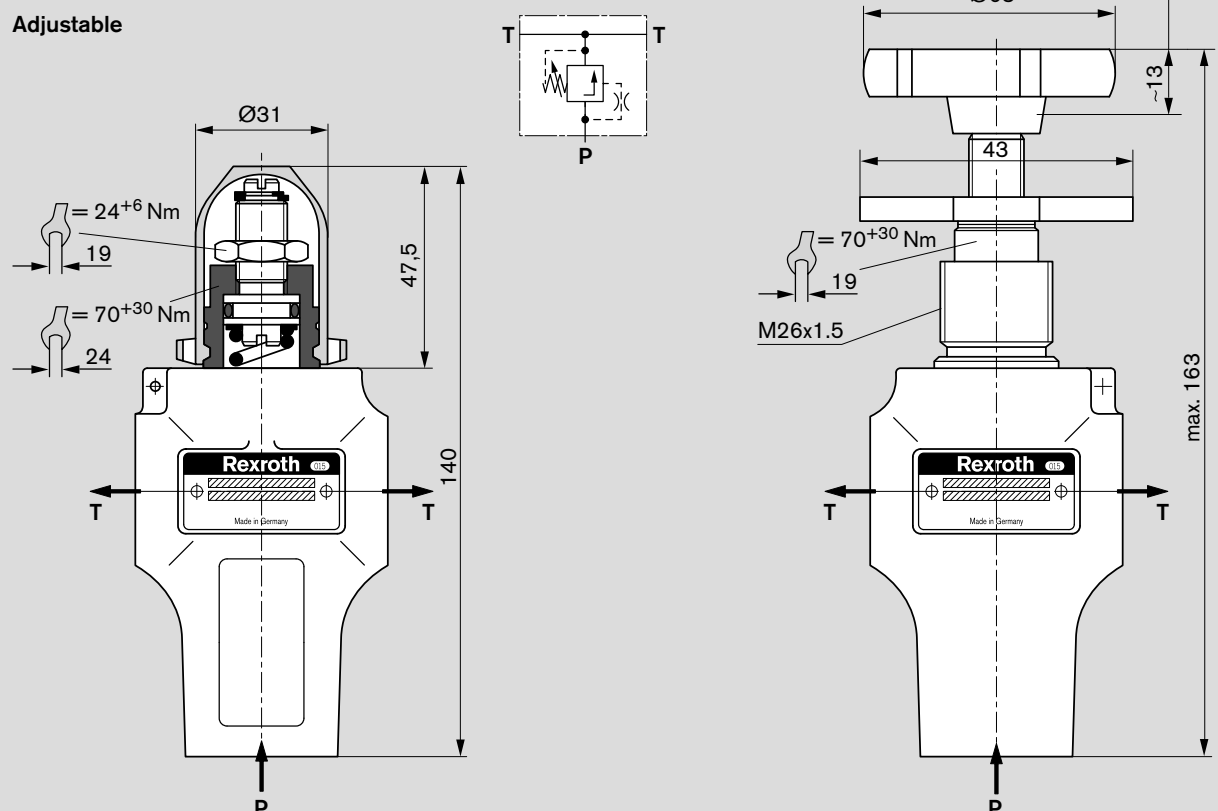
** Pressure relief valve zinc-plated and transparent-passivated, special options upon request

Device dimensions

Fixed

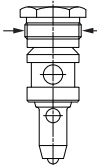



Adjustable



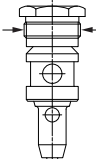

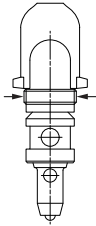



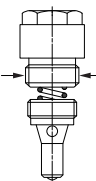

Pressure relief valves for block installation



Threaded port	Version		Seals	Set pressure * [bar]	Weight [kg]	Material No.	
<div>M 30 x 1.5</div> 	Fixed		FKM	5	0.2	0 532 001 148	
	Fixed, with nonreturn valve		NBR	6		0 532 001 171	
	Fixed			12		0 532 001 060	
				15		0 532 001 055	
				25		0 532 001 039	
				30		0 532 001 113	
				50		0 532 001 059	
				60		0 532 001 142	
				70		0 532 001 127	
				80		0 532 001 032	
				90		0 532 001 036	
				120		0 532 001 048	
				130		0 532 001 057	
				150		0 532 001 041	
				160		0 532 001 029	
				170		0 532 001 147	
				170		0 532 001 040	
				180		0 532 001 050	
				190		0 532 001 037	
				200		0 532 001 052	
				FKM		210	0 532 001 176
			NBR	220		0 532 001 058	
	Fixed, with nonreturn valve		HNBR	230		R 917 006 555	
	Fixed		NBR	250		0 532 001 051	
				260		0 532 001 167	
				280		0 532 001 061	
				FKM		280	0 532 001 172
				NBR		300	0 532 001 043
						320	0 532 001 145
	Fixed, with nonreturn valve		330			0 532 001 173	

NBR = Perbunan[®], FKM = Viton[®], HNBR = Therban[®]

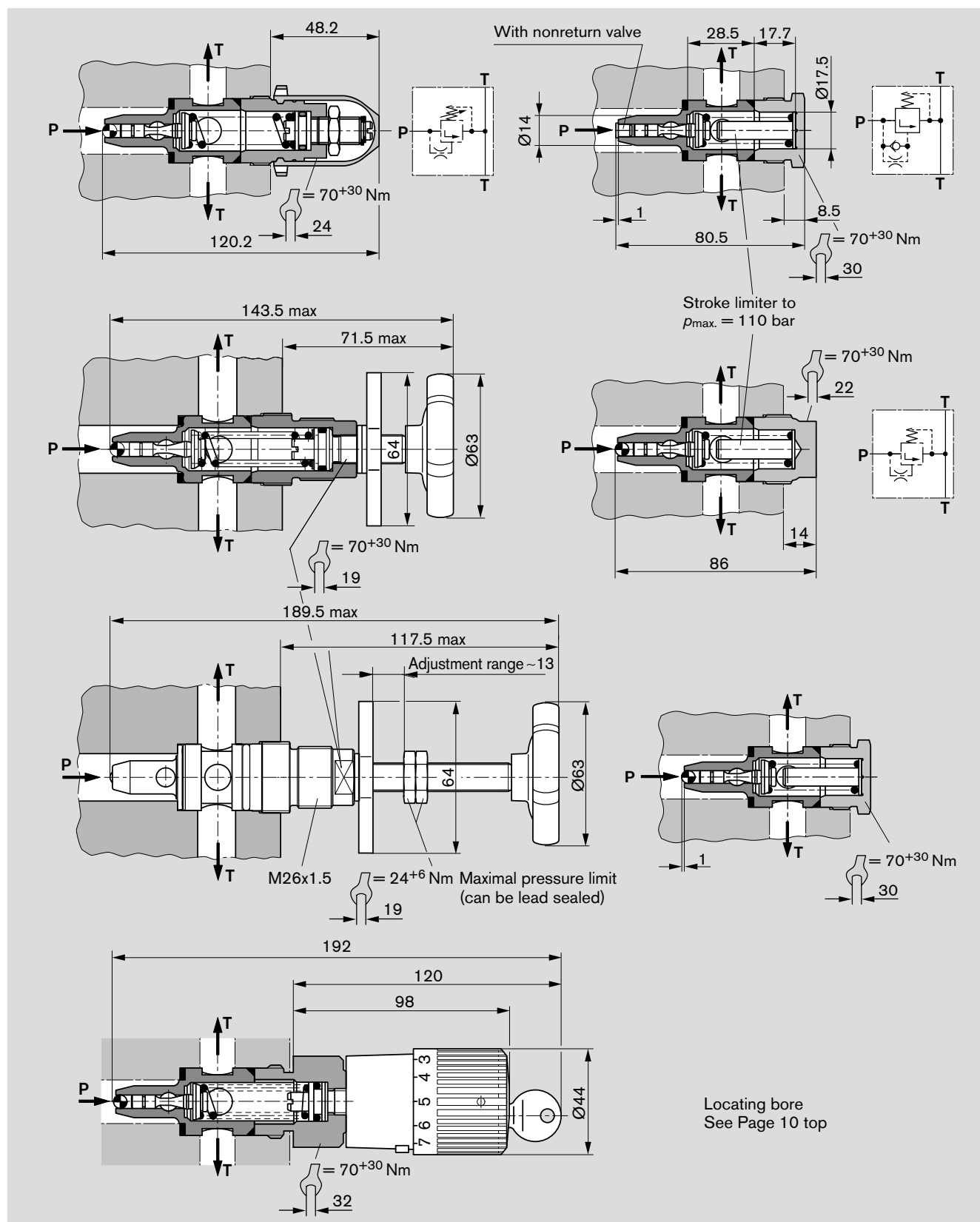
* $p_{nom} + 5\%$ at $Q = 0.1$ l/min, with back flow unloaded

Threaded port	Version		Seals	Set pressure* [bar]	Weight [kg]	Material No.
M 30 x 1.5 	Fixed		NBR	185 350	0.2	0 532 001 170 0 532 001 139
M 30 x 1.5 	Adjustable		NBR	1 ...10	0.3	0 532 002 068
	Adj., return loadable up to 330 bar			1 ...15		0 532 002 048
	Adjustable, preset to 35 ⁺² bar		FKM	5...35		0 532 002 065
	Adjustable		NBR	5...35		0 532 002 062
				7...67		0 532 002 042
				10...15		0 532 002 011
				15...50		0 532 002 012
				40...100		0 532 002 015
				40...200		0 532 002 051
				Adjustable, with nonreturn valve		
	Adjustable			50...350		0 532 002 050
	Adjustable, with nonreturn valve		FKM	50...350		0 532 002 046
	Adjustable			NBR		50...380
	Adjustable			70...180		0 532 002 002
			FKM	70...180		0 532 002 016
	Adjustable, preset to 190 ⁺¹⁰ bar		NBR	100...250		0 532 002 013
	Adjustable		FKM	100...250		0 532 002 019
				100...320		0 532 002 041
M 30 x 1.5	Adjustable, long adjusting shaft		NBR	1 ...10	0.4	0 532 003 012
	Adjustable			1 ...35		0 532 003 037
				15...150		0 532 003 011
				40...280		0 532 003 033
M 30 x 1.5	Adjustable		NBR	50...315	0.5	0 532 008 001
M 26 x 1.5 	Fixed, Valve carrier for screwing-in M 24 x 1.5 See device dimensions Page 10 bottom		NBR	30	0.2	0 532 001 813
				40		0 532 001 806
				110		0 532 001 812
				175		0 532 001 805
				200		0 532 001 804

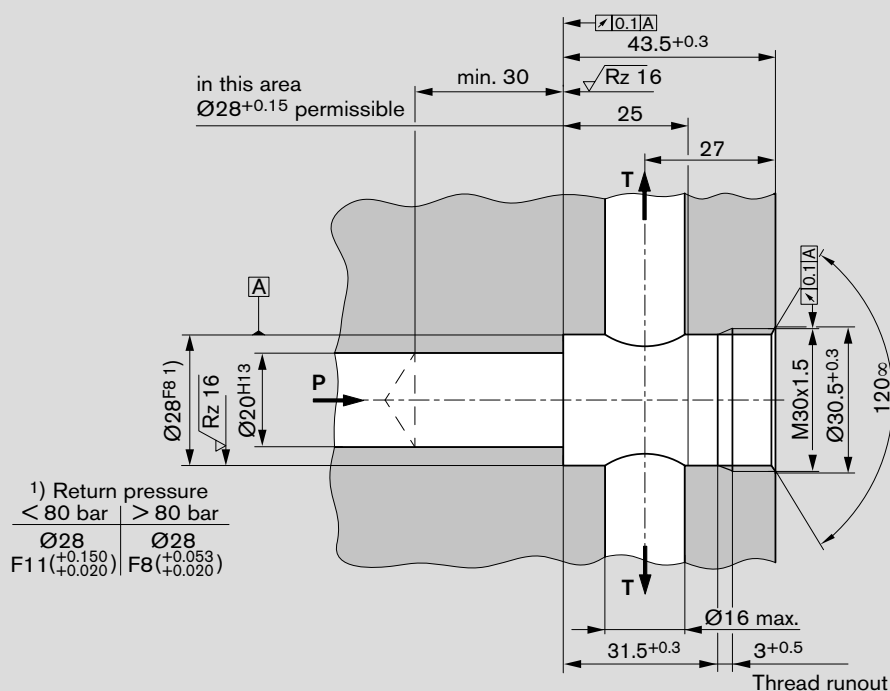
NBR = Perbunan[®], FKM = Viton[®]* $p_{nom} + 5\%$ at $Q = 0.1$ l/min, with back flow unloaded

Device dimensions

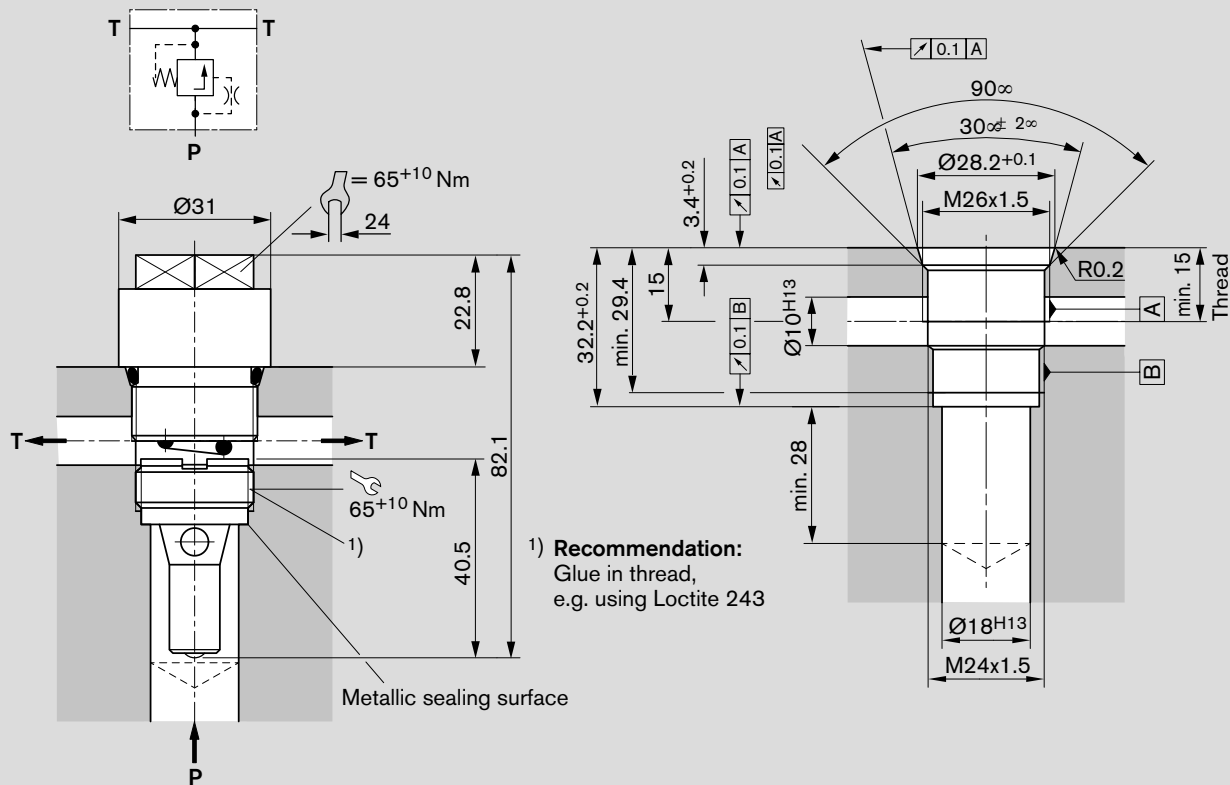
All sealing rings included loose



Device dimensions



Valve carrier for screwing-in



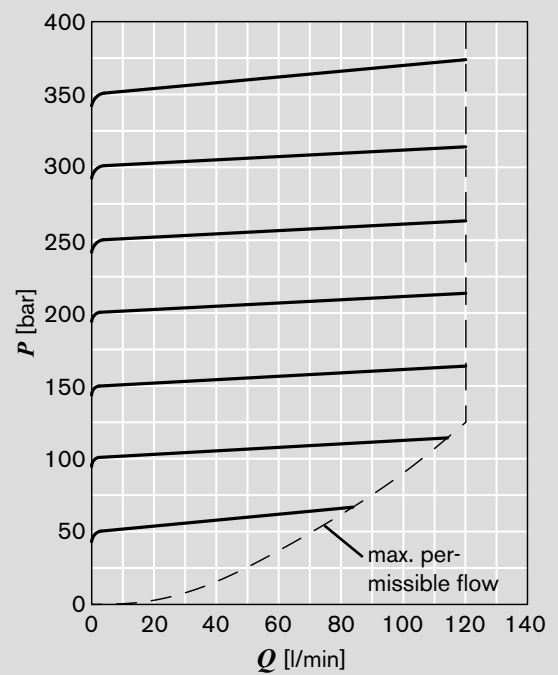
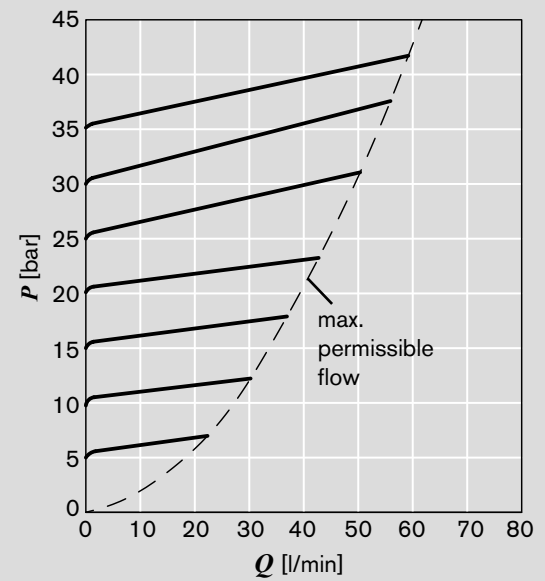
This pressure relief valve for block installation with M26 x 1.5 internal thread is designed for particularly small installation areas. The hydraulic parameters are identical with those for M30 x 1.5 internal thread. The exact pressure setting must ultimately be made by the customer.

Curves

ν 35 mm²/s, T = 50 °C

Exceeding the boundaries of application will cause a disproportionate increase in pressure, and even to the functional limit of the PRV.

For lower setting limits



Further notes

Special models for line installation with fatigue strength up to 350 bar on request.

For proper use, please observe the following additional data sheets:

- Hydraulic valves for mobile applications: general information RE 64 020-B1
- Pressure relief valves: product-specific instructions RE 25 860-B2
- Pressure relief valves: repair instructions RDE 25 860-R

Information regarding the correct handling of Bosch Rexroth hydraulic products is available in our publication:
"General Product Information for Hydraulic Products" RE 07 008.