

Pressure relief valves

RE 25 860/11.11 1/12Replaces:
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

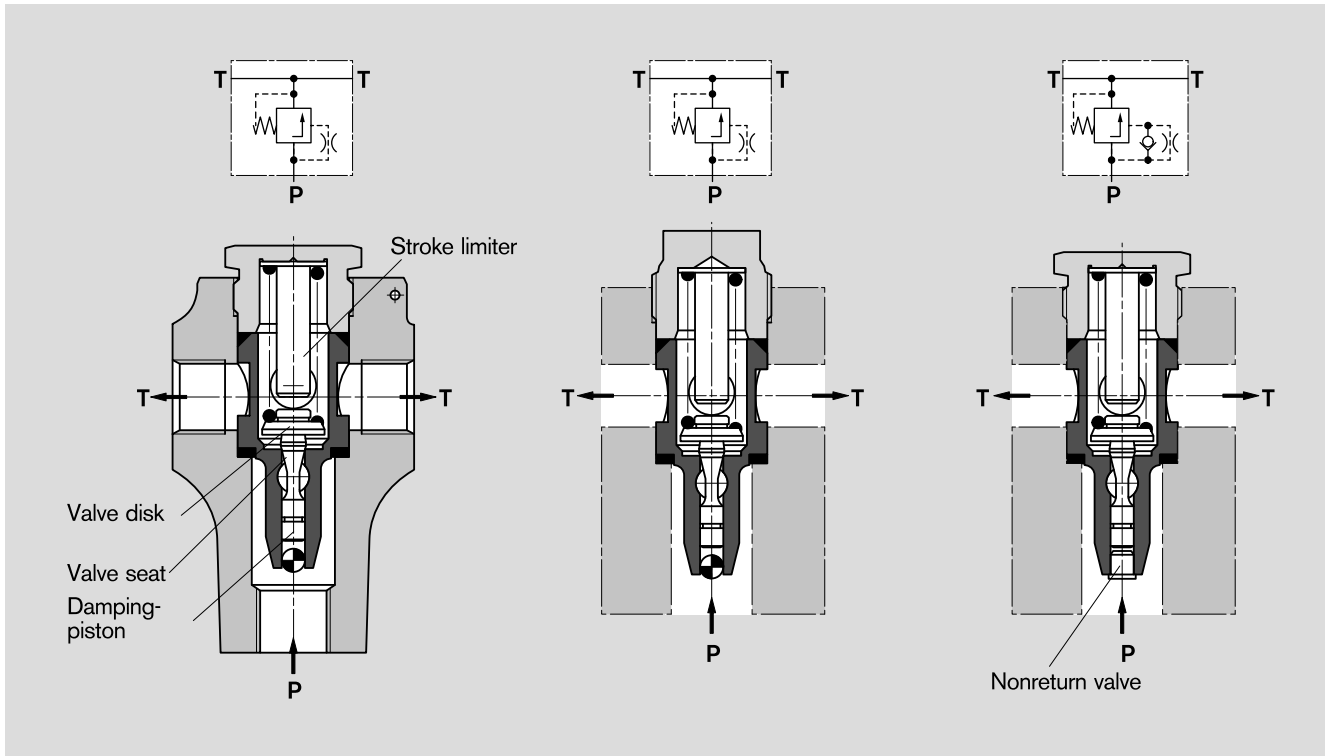
The versions "Safety valves TÜV German Technical Inspection Agency model approved" in accordance with the Pressure Equipment Directive 97/23/EG are used to safeguard hydraulic accumulators, see technical data sheet RDEF 50 153.

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 \varnothing , see chapter "Characteristics"

Pressure relief valves for line installation


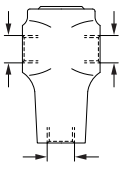





Threaded port	Version		Seals	Set pressure* [bar]	Weight [kg]	Material No.
M 18 x 1,5 	Fixed		NBR	10	0.9	0 532 001 031
			FKM	10		0 532 001 115
			NBR	12		0 532 001 156
				15		0 532 001 004
				20		0 532 001 012
				25		0 532 001 011
				30		0 532 001 014
				40		0 532 001 027
				50		0 532 001 020
				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	210		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

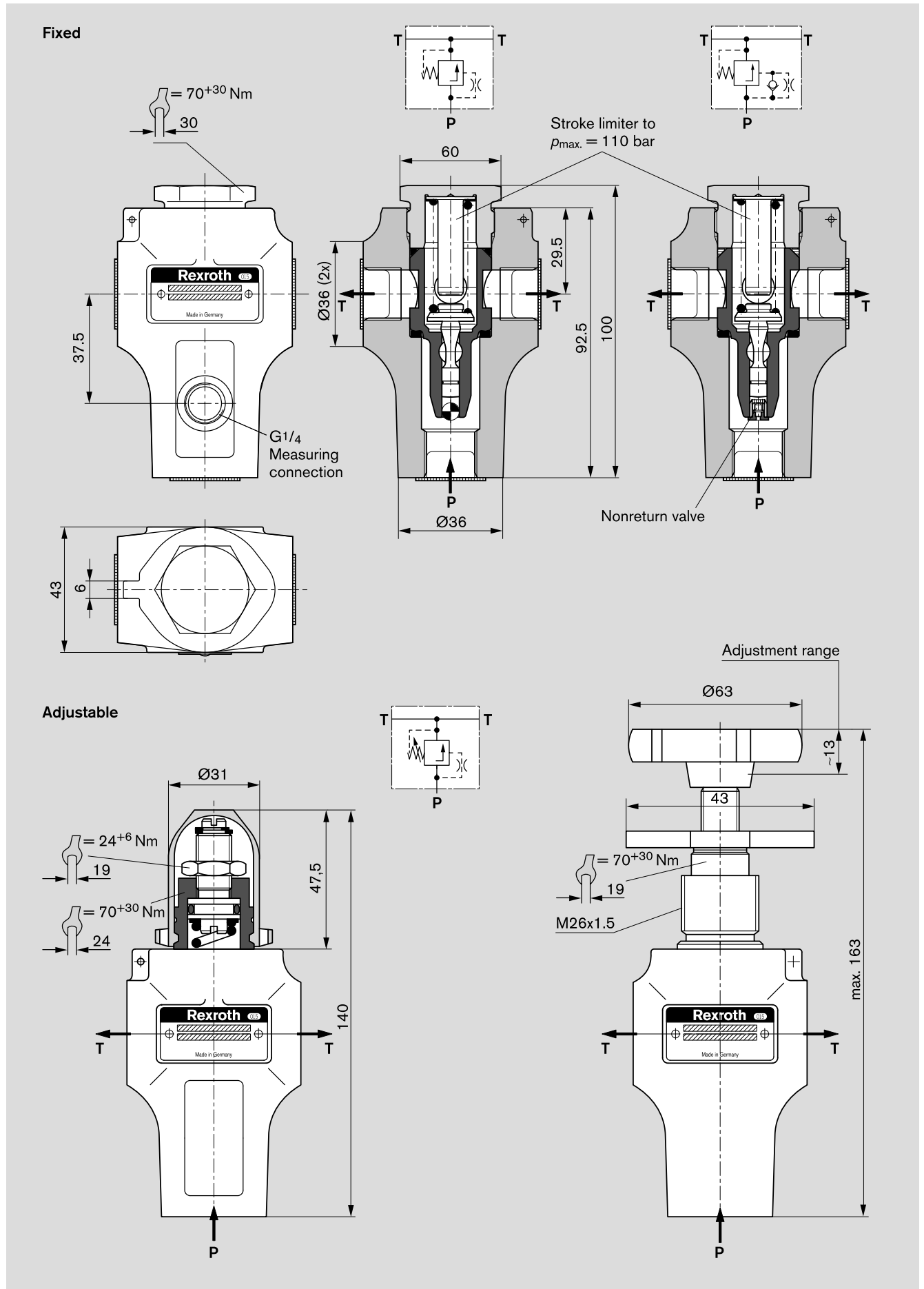
** Pressure relief valve zinc-plated and transparent-passivated, special options upon request

Threaded port	Version		Seals	Set pressure* [bar]	Weight [kg]	Material No.	
G ¹ / ₂ ISO 228	Fixed, with nonreturn valve		NBR	320	0.9	0 532 001 131	
M 18 x 1.5 	Adjustable		NBR	10...15	1.0	0 532 002 010	
				15...50		R 917 002 939**	
				15...50		0 532 002 005	
				7...67		0 532 002 052	
				40...100		R 917 002 936**	
				40...100		0 532 002 003	
				50...300		R 917 002 938**	
				50...300		0 532 002 007	
				FKM		50...300	0 532 002 020
				NBR		50...350	0 532 002 064
			70...180		R 917 002 937**		
			70...180		0 532 002 001		
			100...250		0 532 002 004		
			G ¹ / ₂ ISO 228			NBR	100...250
50...300	0 532 002 044						
G ¹ / ₂ ISO 228	Fixed, with nonreturn valve			50...350		0 532 002 059	
M 18 x 1.5	Adjustable, long adjusting shaft		NBR	1 ...10	1.2	0 532 003 014	
				1 ...35		0 532 003 035	
				15...80		0 532 003 016	
				15...150		0 532 003 001	
				30...200		0 532 003 003	
				30...200		R 917 005 060**	
				50...250		0 532 003 002	
				50...300		0 532 003 009	
G ¹ / ₂ ISO 228				50...300		0 532 003 034	
M 18 x 1.5	Adjustable			0...250	1.2	0 532 008 002	

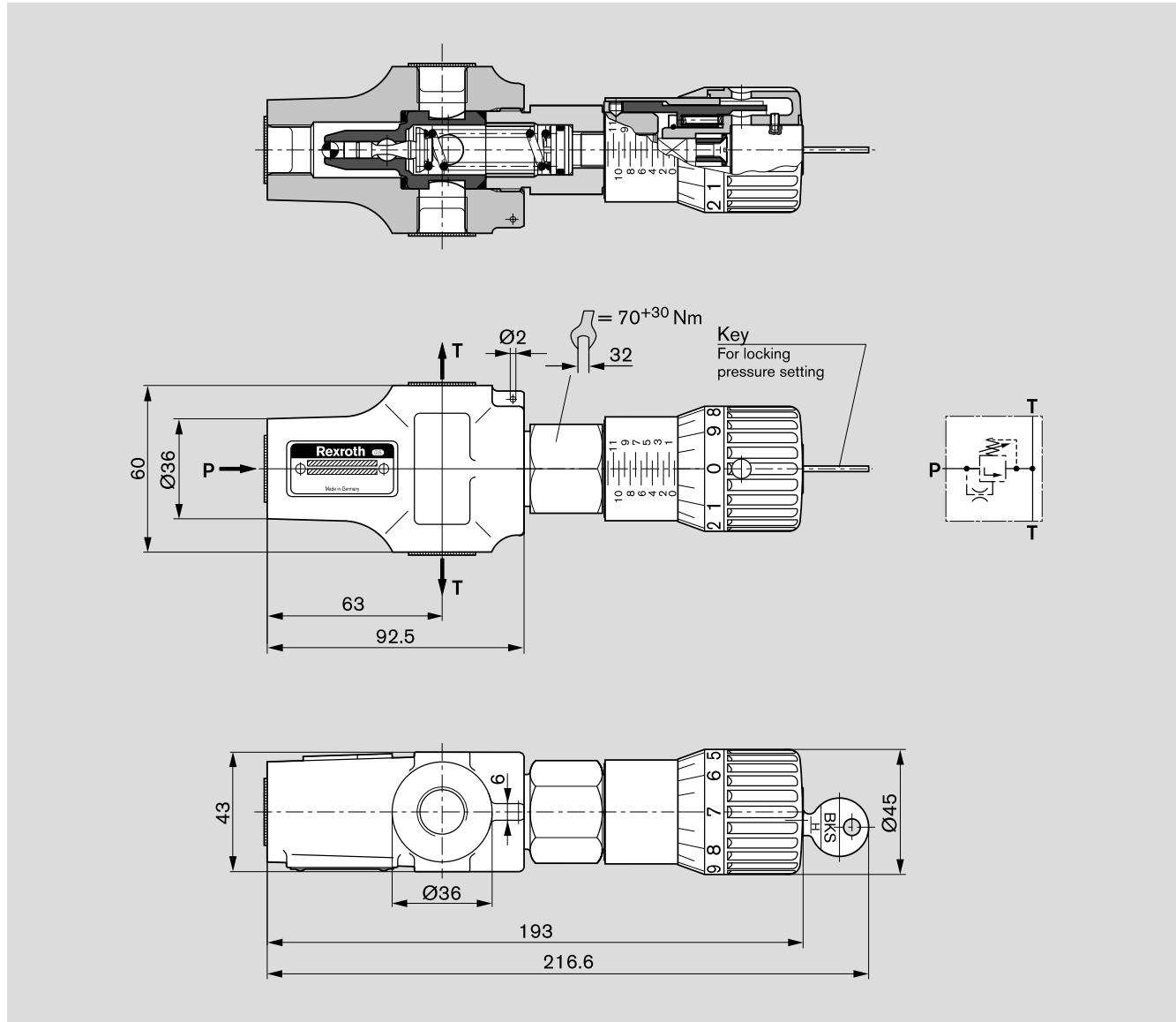
NBR = Perbunan[®], FKM = Viton[®]* $p_{nom} +5\%$ at $Q = 0.1$ l/min, with back flow unloaded

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

Device dimensions

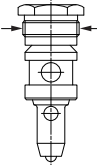



Device dimensions (Continued)



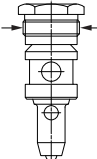

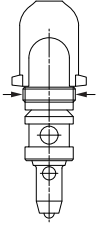





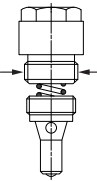

Pressure relief valves for block installation



Threaded port	Version		Seals	Set pressure* [bar]	Weight [kg]	Material No.
M 30 x 1.5 	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[®]

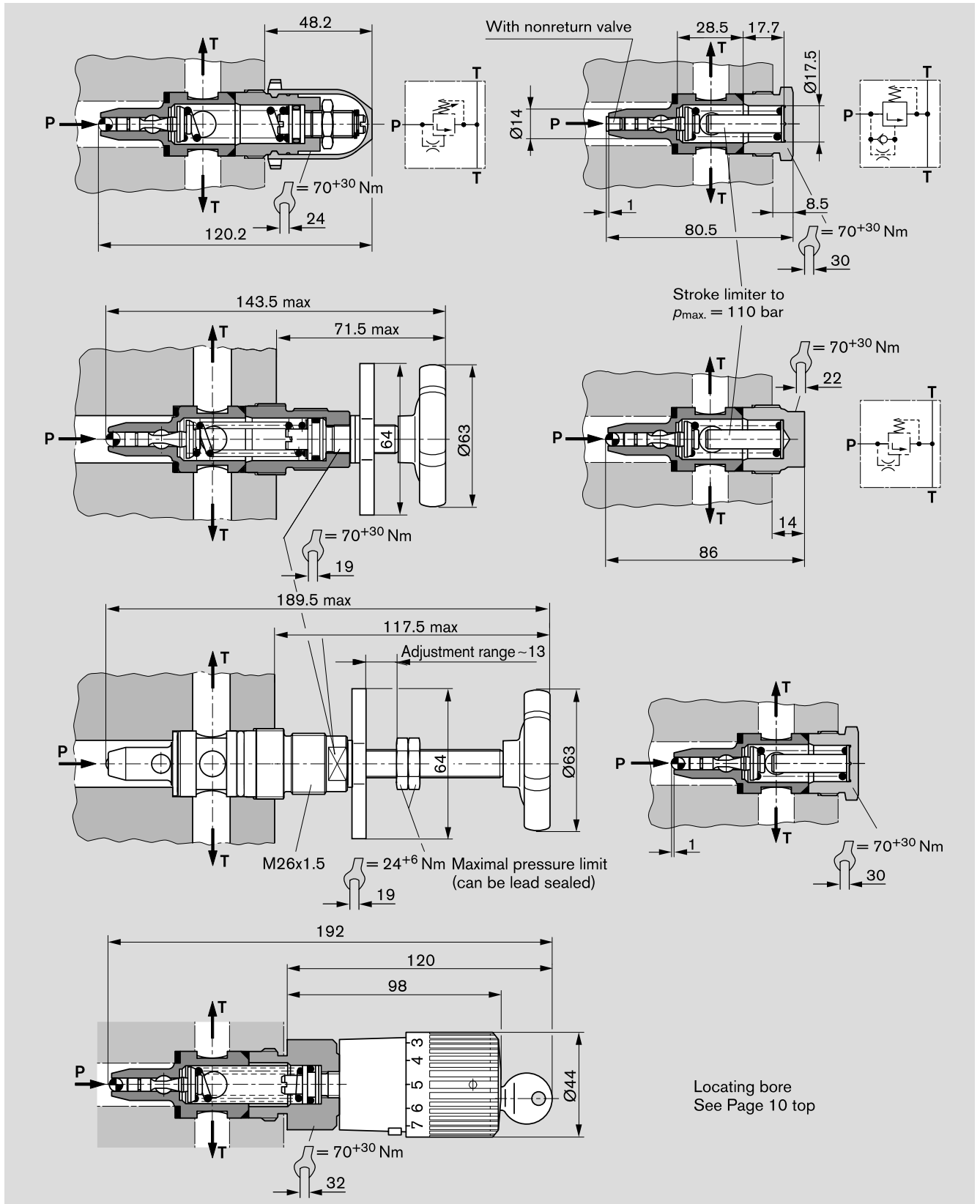
* $p_{nom} + 5\%$ at $Q = 0.1$ l/min, with back flow unloaded

Threaded port	Version		Seals	Set pressure* [bar]	Weight [kg]	Material No.
M 30 x 1.5 	Fixed		NBR	185	0.2	0 532 001 170
				350		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
			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		
			50...300	0 532 002 014		
	Adjustable, with nonreturn valve		FKM	50...350		0 532 002 050
	Adjustable			50...350		0 532 002 046
	Adjustable, with nonreturn valve		NBR	50...380		0 532 002 058
	Adjustable			70...180		0 532 002 002
	Adjustable, with nonreturn valve		FKM	70...180		0 532 002 016
Adjustable	NBR	100...250		0 532 002 013		
Adjustable, preset to 190 ⁺¹⁰ bar	FKM	100...250	0 532 002 019			
Adjustable		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

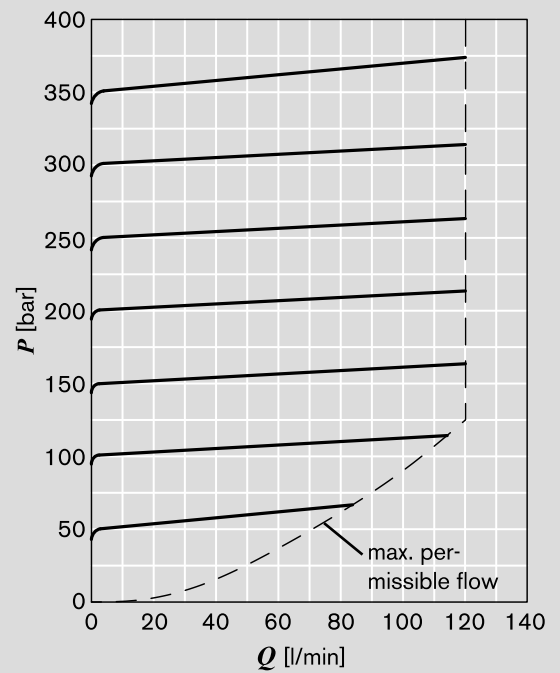
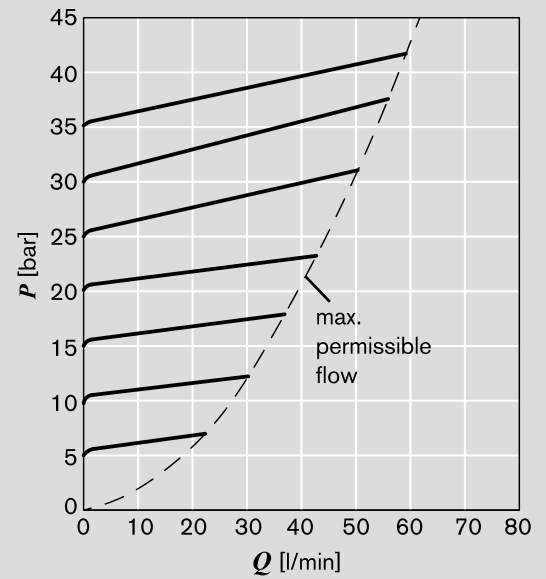


Curves

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.