

Pressure relief valve, direct operated, Size 04

(07/2015)

Screw-in direct operated pressure relief valve (DBDE04) for use in manifolds Size 04

Product Overview

Direct operated DBD valves can be used to safely limit the maximum permissible pressure, where necessary, in hydraulic systems.

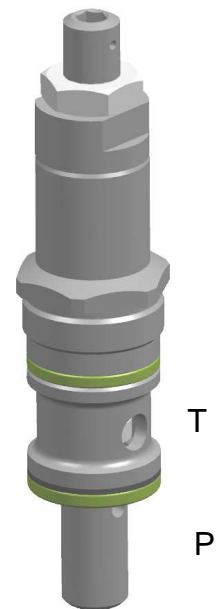
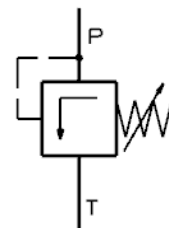
The valves are available as Moog size 04

Advantages

- Maximum inlet pressure, $p = 420$ bar
- Space saving screw-in installation in manifold blocks – no additional cover necessary.
- Optional cap available to cover and protect the pressure setting.
- Also available in a factory preset version with tamperproof cap.

Nominal Sizes and Flow Rates

- Size 04 – Standard : 6 L/min
- Size 04 – High-Flow : 30 L/min



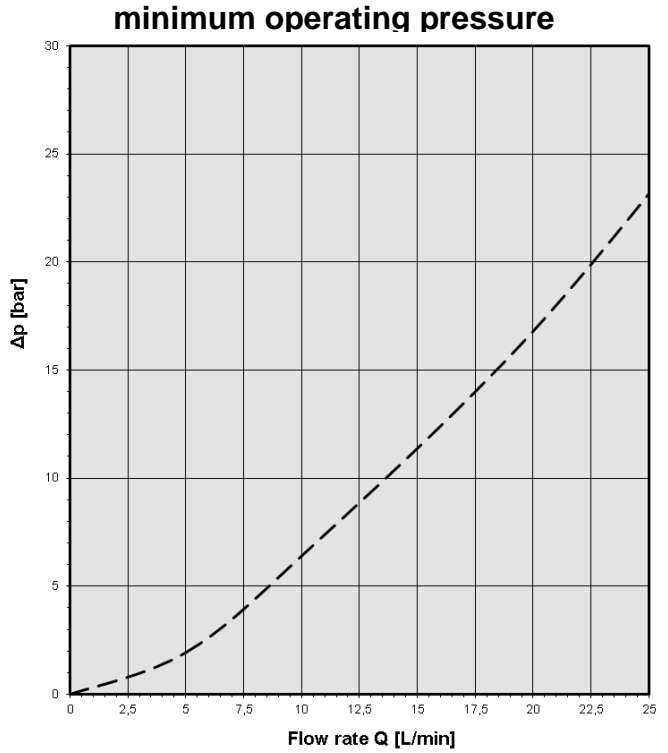
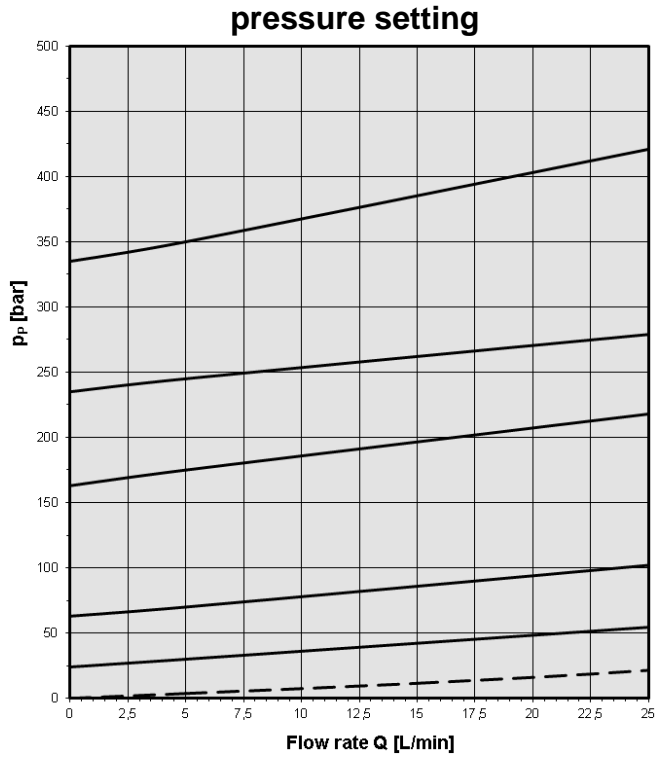
Description	Symbol	Unit	Comments
Valve type	-	-	Pressure relief valve, direct operated
Type designation	-	-	DBD
Valve seat type	-	-	Seat and cone design
Mounting	-	-	Manifold, screw-in
Nominal valve size		-	04
Wrench size (mounting)		mm	SW 30
Torque (mounting)	-	Nm	45 (M30x1,5 thread)
Weight (approximate)	-	kg	0,5
Installation cavity	-	-	See page 4
Installation orientation	-	-	any
Flow direction	-	-	P ⇌ T
Operating pressure	max.	bar	Inlet port, P = 420; Outlet port, T = 210 bar
Ambient temperature-range	-	°C	-30 to +80 for NBR seals
		°C	-20 to +80 for FKM seals
Seals/ Oil compatibility	-	-	NBR* : Mineral oil based, HFB, HFC hydraulic fluids
	-	-	FKM** : Mineral oil based, HFD hydraulic fluids
	-	-	Compatibility with other hydraulic fluids on request
Fluid temperature range	-	°C	-30 to +80 for NBR seals
			-20 to +80 for FKM seals
Viscosity range (recommended)	min.	mm ² /s	15
	max.	mm ² /s	46
Viscosity range (max allowable)	min.	mm ² /s	2,8
	max.	mm ² /s	380
Cleanliness level (functional reliability)			ISO 4406 Class 20/18/15
Cleanliness level (long life)			ISO 4406 Class 17/14/11
MTTF _d Value (ISO13849-1)		Years	150

* NBR : Nitrile rubber (Buna N)

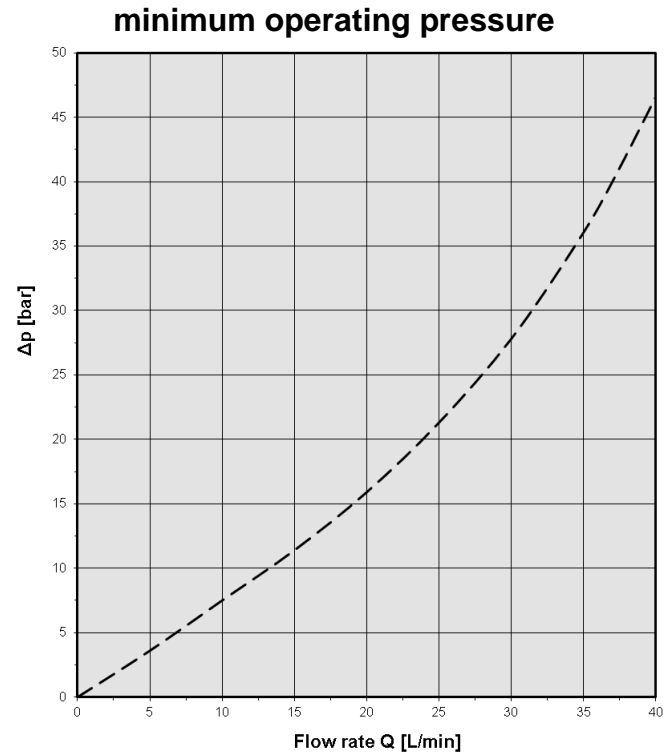
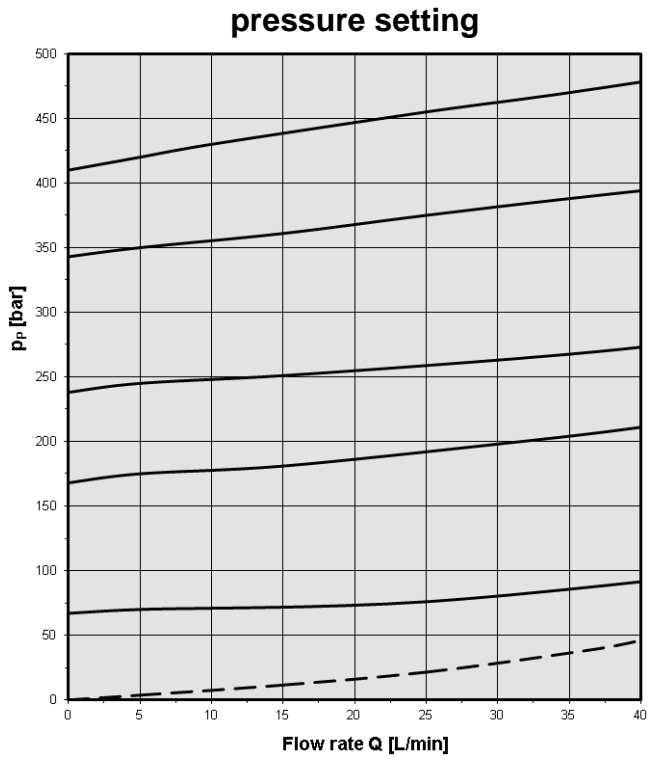
** FKM : Fluorocarbon rubber

P-Q Curves

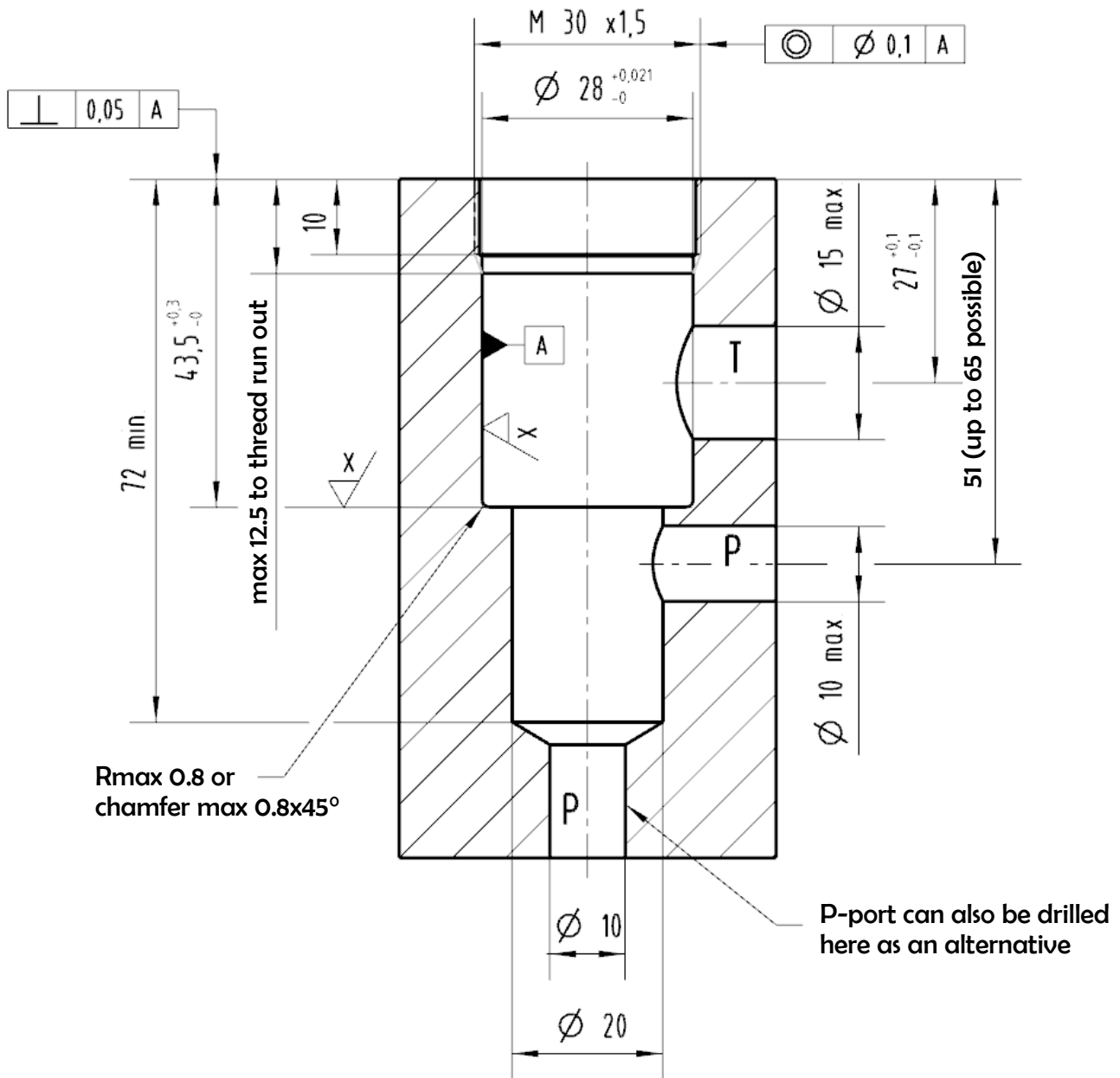
Standard Version



High Flow Version



Moog W60 Cavity

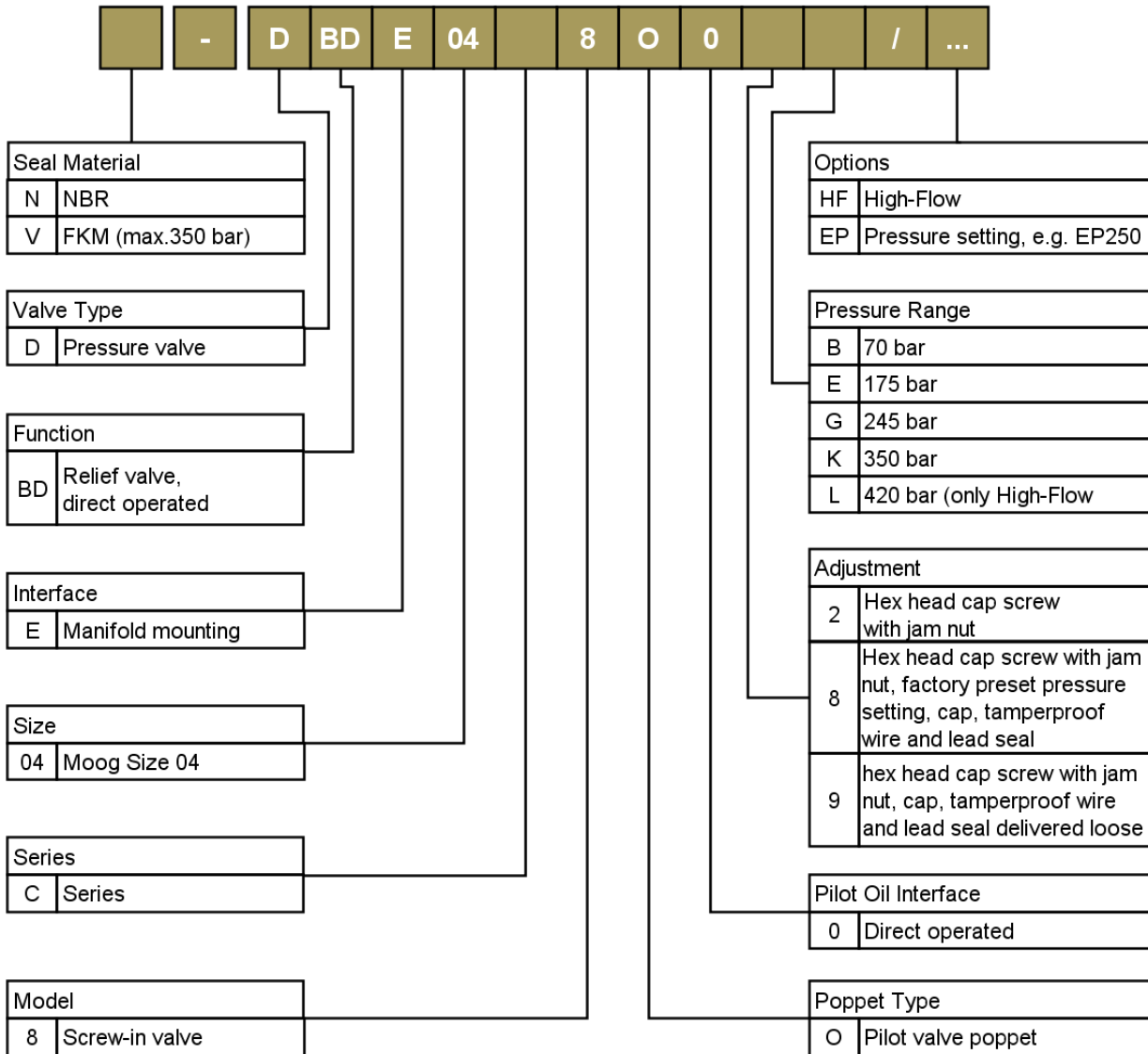


*At higher flows, for example in combination with the high-flow version, a dimension of 51mm is recommended.

T	U	V	W	X	Y	Z
\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	Rz 63	Rz 25	Rz 16	Rmax10	Rz 4	Rz 1

U / (X)

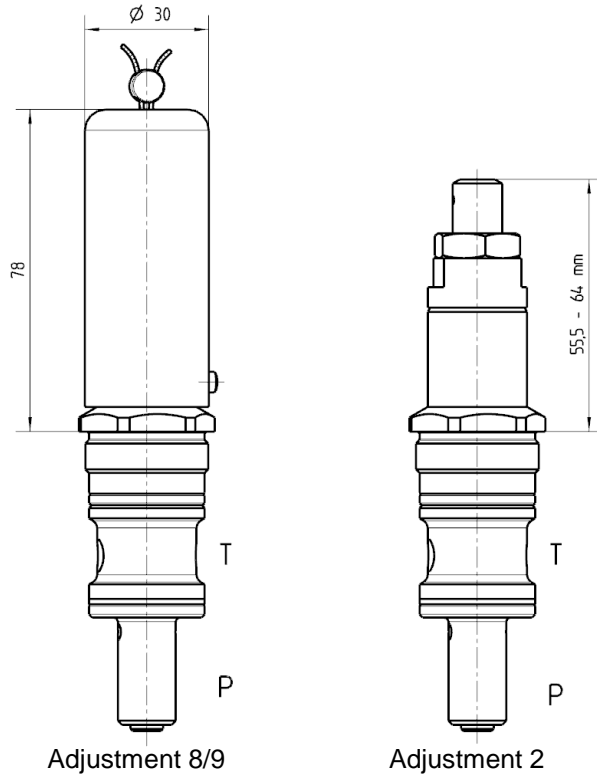
Type designation



Common Configurations

Common Configurations (Adjustment 2)		
DBDE04	FKM	NBR
Standard	V-DBDE04A8002B	N-DBDE04A8002B
	V-DBDE04A8002E	N-DBDE04A8002E
	V-DBDE04A8002G	N-DBDE04A8002G
	V-DBDE04A8002K	N-DBDE04A8002K
High Flow	V-DBDE04C8002B/HF	N-DBDE04C8002B/HF
	V-DBDE04C8002E/HF	N-DBDE04C8002E/HF
	V-DBDE04C8002G/HF	N-DBDE04C8002G/HF
	V-DBDE04C8002K/HF	N-DBDE04C8002K/HF
	---	N-DBDE04C8002L/HF

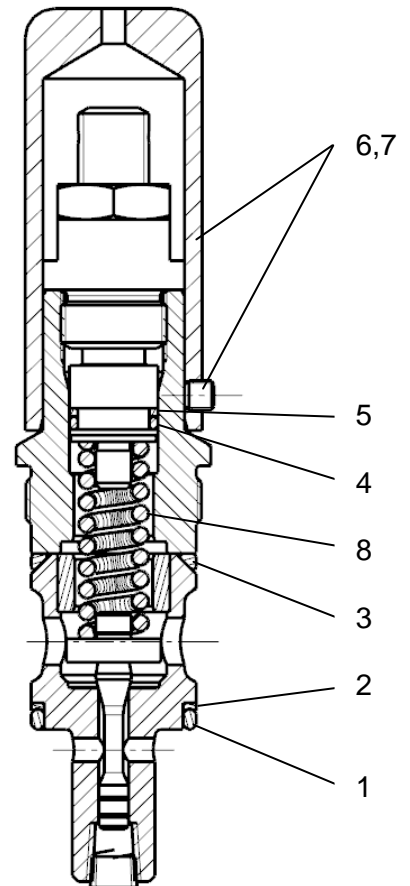
Dimensions



Seal kits & Accessories

Seal Kits		
Pos.	Description	Order number
(1-5)	N-Seal Kit DBDE04 (NBR)	XEB12418-000N00
	V-Seal Kit DBDE04 (FKM)	XEB12418-000-00

Accessories		
Pos.	Description	Order number
(6,7)	Adjustment 8 & 9 (Cap, set screw, wire & lead seal)	XEB18992-000-00



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