

## Pressure Relief Cartridge Valve, 10 mm For Cross-line relief function, Direct Acting, Seat Valve Design Series DDPDB-3D ...



- Pmax 450 bar / Qmax 140 l/min
- Seat valve design gives virtually zero-leakage closure from port A to B and B to A
- Pressures to 450 bar on all ports (see Model Code Key)
- Ideal for service line relief, sequence or pre-load functions (fast and stable response)
- Available in line mounting body DD-12 (G 1/2")
- Also available in ISO / CETOP 05 stack mounting body (315 bar max.)

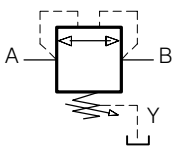
### 1. Description

Series DDPDB-3D-10 ... cartridges are direct acting pressure relief valves for combined cross-line relief duties i.e. pressure is relieved either from A-to-B

or from B-to-A as necessary (see symbol). These dual function cartridges can replace 2 conventional cartridge valves, with corresponding savings in space and cost. Their seat valve design ensures virtually zero leakage and they are designed to fit BUCHER cavity type DD. The spring chamber is externally drained via port Y which must be run directly to tank without any significant back pressure. The cartridge is designed to be fitted with a normal 27 A/F OE spanner (use the correct tightening torque). For customers who manufacture their own manifold blocks, we offer form tool sets for sale or hire. The line- and manifold mounting body DD-12 is available for line mounting applications.

### 2. Symbols

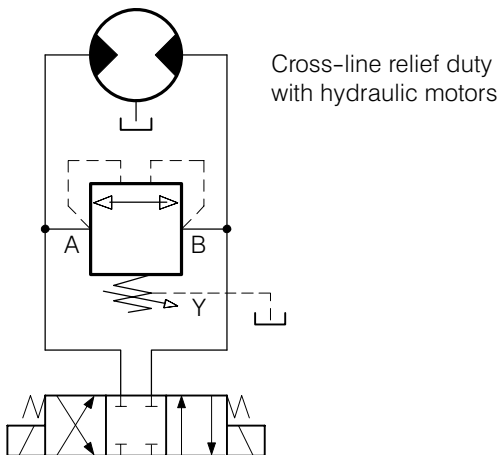
DDPDB-3D-10...



### 3. Characteristics

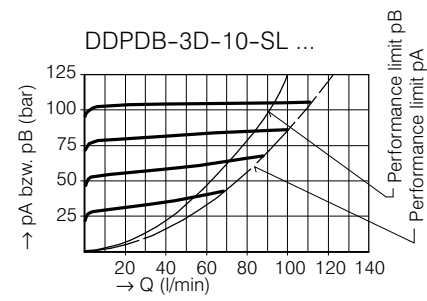
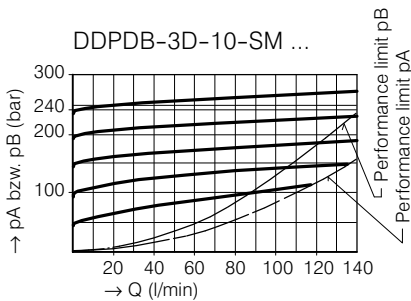
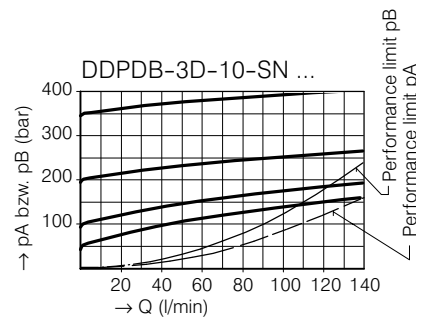
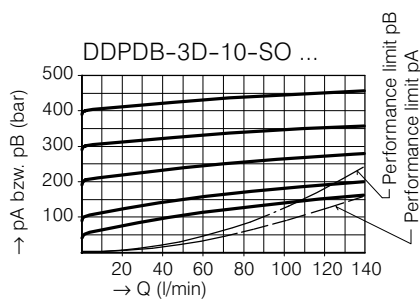
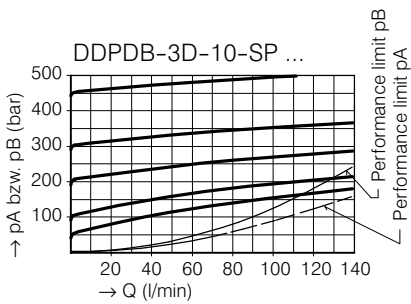
Type		pressure relief cartridge valve for cross-line relief duty (A ⇒ B and B ⇒ A)
Design		direct acting seat valve, i.e. poppet type
Mounting method		screw-in cartridge
Size		10 mm nominal size, BUCHER cavity type DD
Mass	kg	0,35
Mounting attitude		unrestricted
Flow direction		A ⇒ B and B ⇒ A, see symbol
Operating pressure	bar	... 450 in A, B and Y, for proper functioning, Y must be run directly to tank
Adjustment ranges, see performance curves	bar	pressure range P = 350 ... 450 pressure range O = 300 ... 400 pressure range N = 180 ... 350 pressure range M = 80 ... 240 pressure range L = 10 ... 100
Flow rate Q max.	l/min	140, see performance curves
Fluids		Hydraulic oils HL and HLP to DIN 51 524 other fluids - contact BUCHER
Fluid temperature range	°C	-20 ... +60
Viscosity range	cSt	10 ... 300
Minimum fluid cleanliness		18/14 to ISO 4406 /CETOP RP70H 8 ... 9 to NAS 1638

#### 4. Application example

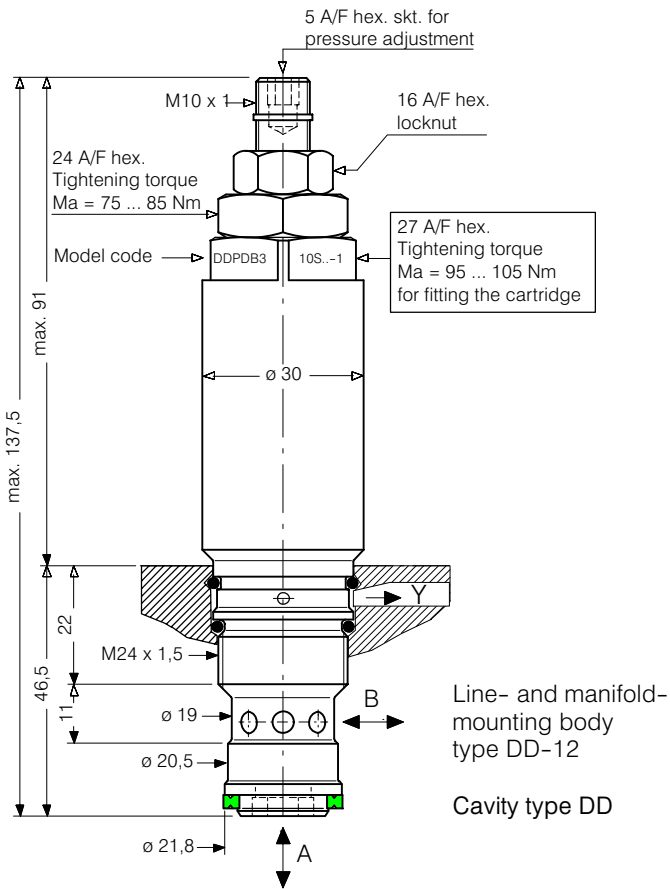


#### 5. Performance characteristics

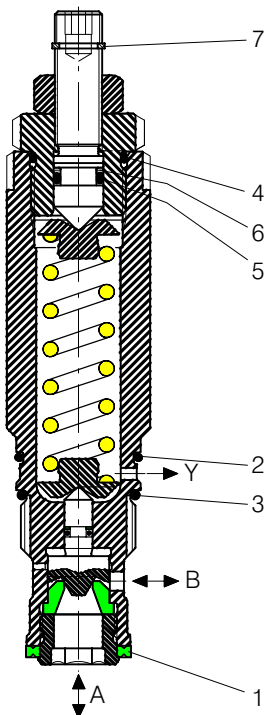
Oil viscosity 33 cSt



## 6. Dimensions



## 7. Schematic section



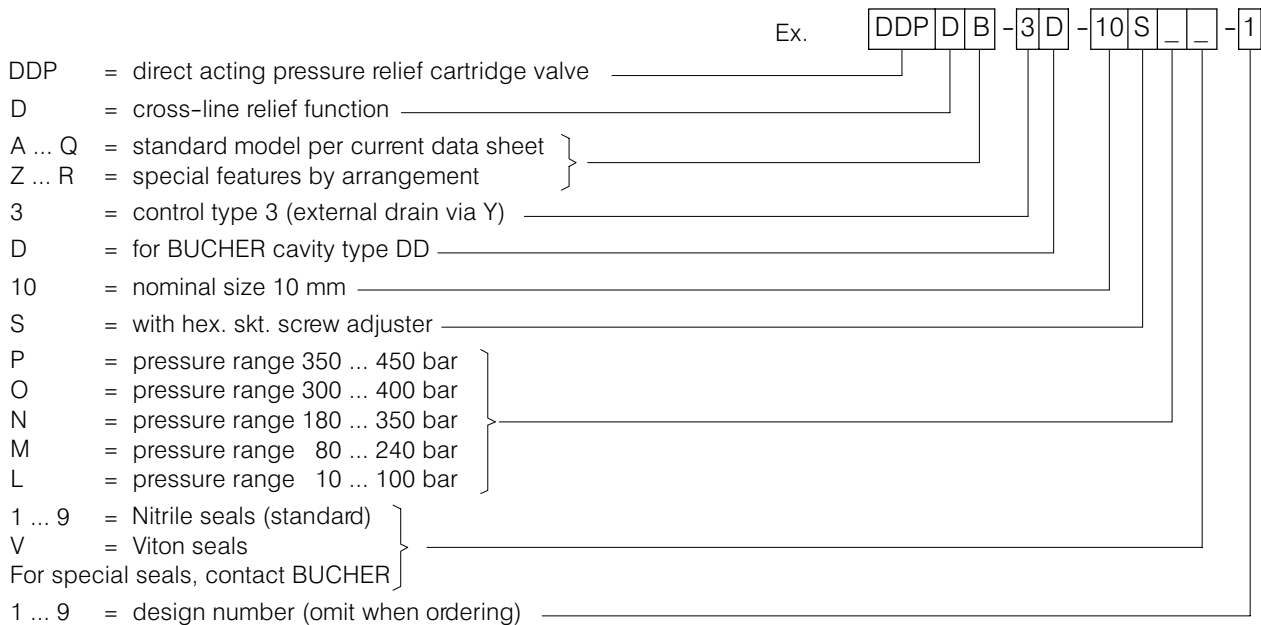
Seal kit no. DS-255, comprising:

Itm.	Qty.	Description	Dimension
1	1	Sealing ring	$\phi 22,1 / 16,1 \times 2,5$
2	1	O-ring no. 020	$\phi 21,95 \times 1,78 \text{ N90}$
3	1	O-ring	$\phi 21,00 \times 2,00 \text{ N75}$
4	1	O-ring no. 017	$\phi 17,17 \times 1,78 \text{ N90}$
5	1	O-ring no. 011	$\phi 7,65 \times 1,78 \text{ N90}$
6	1	Backup ring	$\phi 9 \times 6,1 \times 1,4$
7	1	Half-round ring	$\phi 9,00 \text{ Type SS}$

## 8. Installation and servicing

All installation and servicing must be carried out with care, and by qualified personnel only. When changing seals, the new seals must be thoroughly oiled or greased before they are fitted. Use the correct tightening torques at all times.

## 9. Model code key



## 10. Related data sheets

Old no.	New no.	
i-32.00	400-P-040011-E	The Form Tool hire programme
i-45.20	400-P-060121-E	BUCHER cavity type DD
G-24.21	400-P-740111-E	Line- and manifold mounting body type DD-12 (G 1/2")

### BUCHER HYDRAULICS

[www.bucherhydraulics.com](http://www.bucherhydraulics.com)

#### Germany

Phone +49 7742 85 20  
Fax +49 7742 71 16  
info.de@bucherhydraulics.com

#### France

Phone +33 389 64 22 44  
Fax +33 389 65 28 78  
info.fr@bucherhydraulics.com

#### Netherlands

Phone +31 79 34 26 24 4  
Fax +31 79 34 26 28 8  
info.nl@bucherhydraulics.com

#### UK

Phone +44 24 76 35 35 61  
Fax +44 24 76 35 35 72  
info.uk@bucherhydraulics.com

#### USA

Phone +1 262 605 82 80  
Fax +1 262 605 82 78  
info.wi@bucherhydraulics.com

#### Switzerland

Phone +41 33 67 26 11 1  
Fax +41 33 67 26 10 3  
info.ch@bucherhydraulics.com

#### Italy

Phone +39 0522 92 84 11  
Fax +39 0522 51 32 11  
info.it@bucherhydraulics.com

#### Austria

Phone +43 6216 44 97  
Fax +43 6216 44 97 4

#### China

Phone +86 10 64 44 32 88  
Fax +86 10 64 44 32 35  
info.bj@bucherhydraulics.com

#### Product Center (Elevator)

Phone +41 41 757 03 33  
Fax +41 41 757 16 49  
info.nh@bucherhydraulics.com

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