

Pressure-Relief Cartridge Valve, Size 10

$Q_{\max} = 140 \text{ l/min}$, $p_{\max} = 450 \text{ bar}$
Direct acting, positive seat design
Series DDPB-1C...



- Positive seat design gives near zero-leakage closure of ports A and B
- Good override characteristics due to dynamic poppet stroke assistance
- Pressures to 450 bar, all ports (see spring ranges in model code key)
- Ideal for back-pressure and anti-shock service (fast and stable response)
- Available as cartridge or in DC-12-line mounting body
- Also available in ISO / CETOP 05 stack-mounting bodies (315 bar max.)

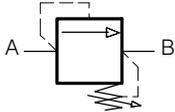
1. Description

Series DDPB-1C-10 ... cartridges are direct acting pressure relief valves. Their positive seat design ensures virtually zero-leakage, and they are designed to fit BUCHER cavity type DC. The spring chamber is internally drained to port B. Any pressure in port B is additive to the spring pressure setting, therefore port B should preferably be connected to tank (see also externally drained model

DDPB-3D ...). Thoroughly oil or grease external seals before fitting the cartridge in a DC cavity. The cartridge can be tightened with a 27 A/F OE spanner (note the recommended tightening torque). Form tools are available for sale or hire, should customers wish to machine their own cavities. For line- and manifold mounting body type DC-12 see related data sheet.

2. Symbols

DDPB-1C-10 ...

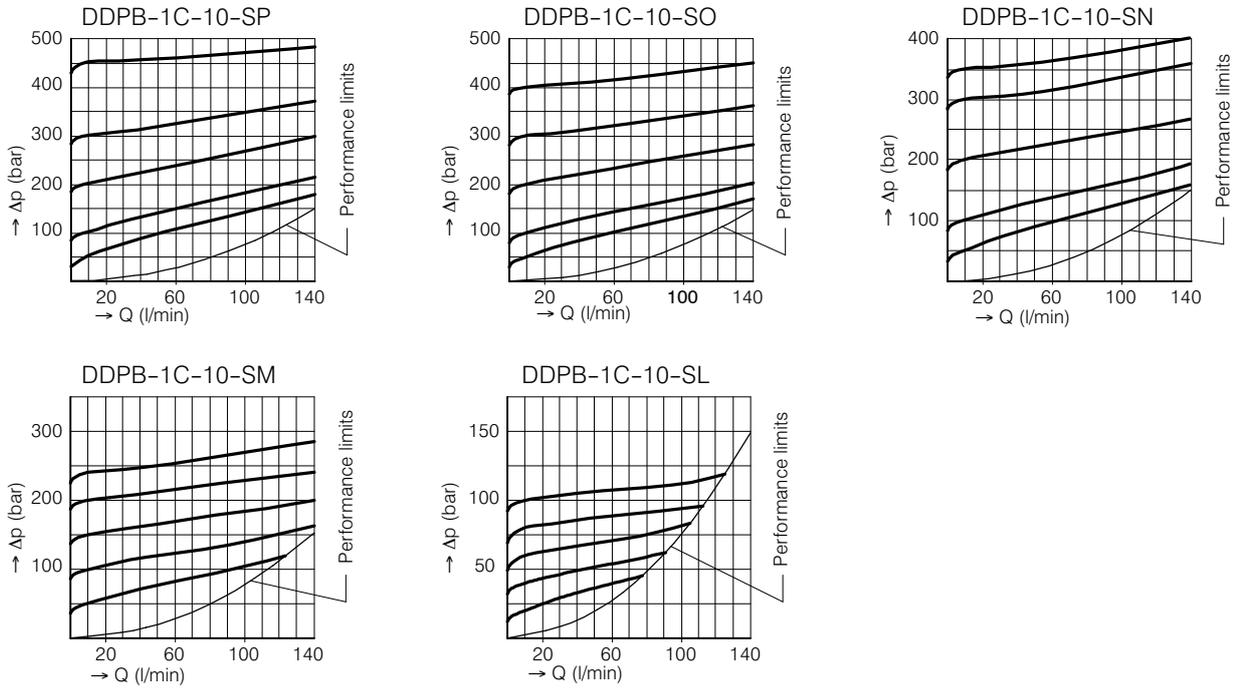


3. Characteristics

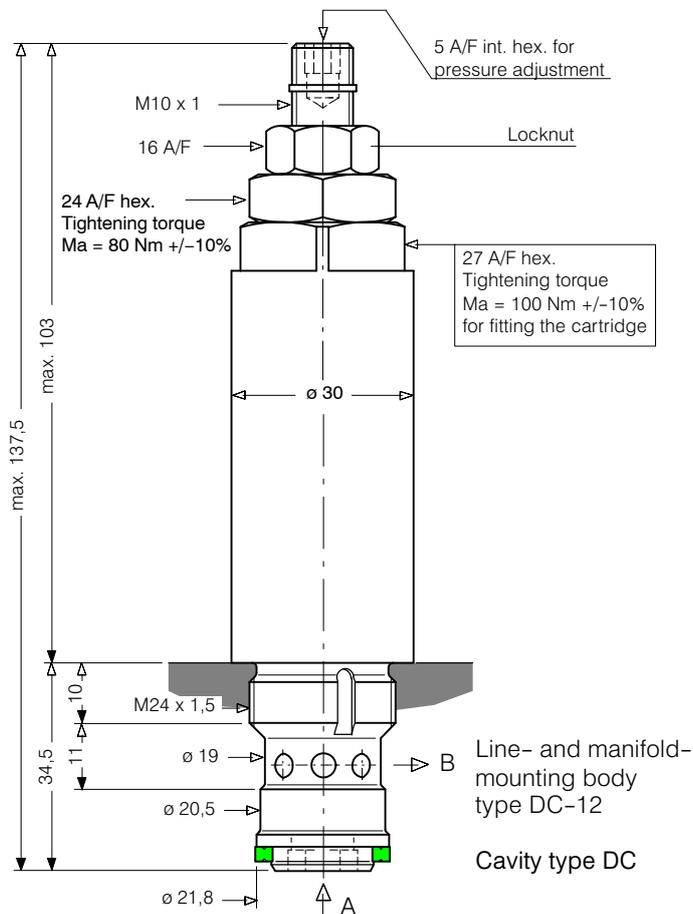
Type		pressure relief cartridge valve
Design		direct acting, positive seat (poppet)
Mounting method		screw-in cartridge
Size		10 mm nominal size, BUCHER cavity DC
Mass	kg	0,35
Mounting attitude		unrestricted
Flow direction		A = pressure inlet, B = pressure outlet (Tank)
Operating pressure	bar	... 450 max. in A and B
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 limits
Fluids		Hydraulic oils HL and HLP to DIN 51 524 other fluids - contact BUCHER
Fluid temperature range	°C	-25 ... +80
Viscosity range	cSt	10 ... 650 mm ² /s, recommended 15 ... 250 mm ² /s
Minimum fluid cleanliness		20/18/15 to ISO 4406 : 1999

4. Performance characteristics

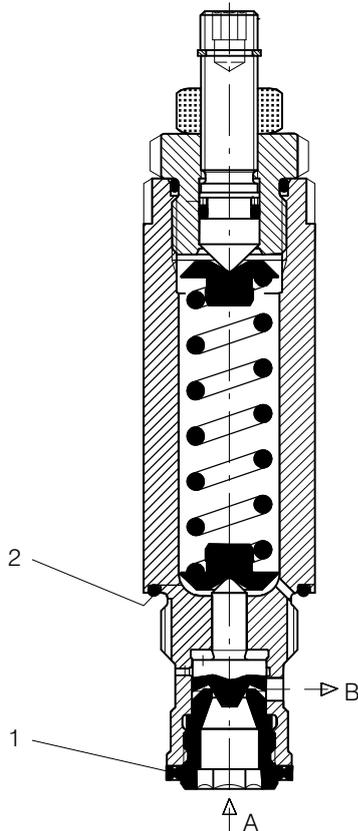
Oil viscosity 33 cSt



5. Dimensions



6. Schematic section



Seal kit no. DS-207-N, comprising:

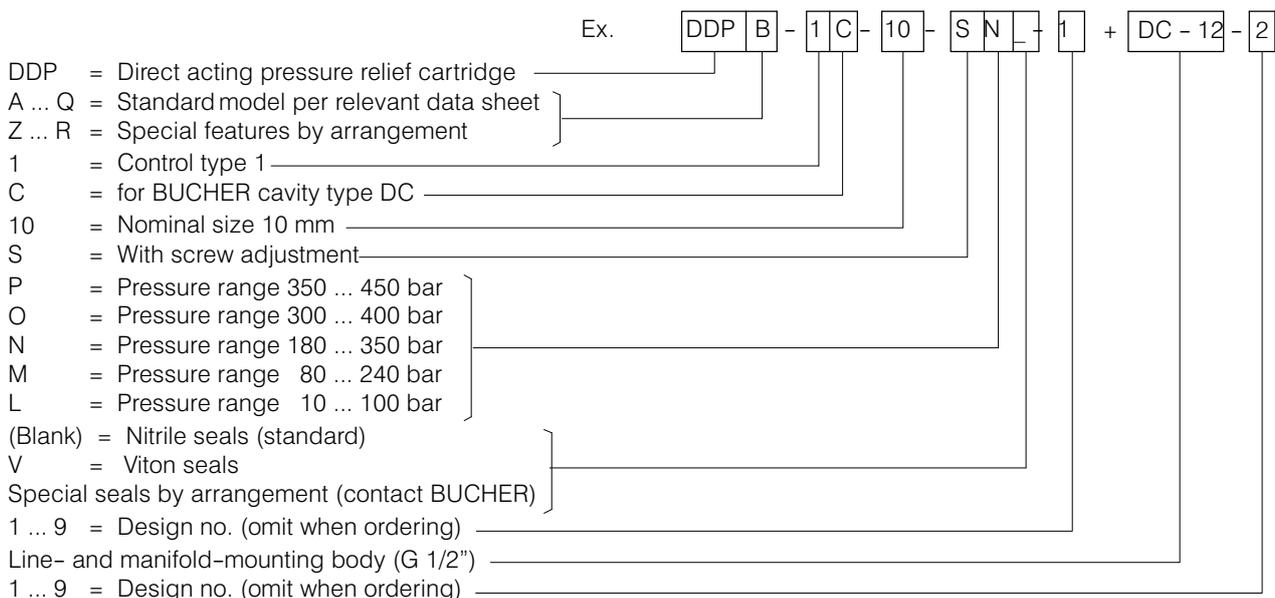
Itm.	Qty.	Description	Dimension
1	1	Sealing ring	Ø 22,1 / 16,1 x 2,5
2	1	O-ring no. 021	Ø 23,52 x 1,78 N90

7. 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 torque when fitting the threaded bush.

8. Model code key



9. Related data sheets

Old no.	New no.	
i-32.00	400-P-040011-EN	The Form Tool hire programme
i-45.10	400-P-060111-EN	BUCHER cavity type DC
D-3.32	400-P-270201-EN	Pressure relief- or sequence cartridge valve, series DDPB-3D ...
G-24.20	400-P-740101-EN	Line- and manifold mounting body type DC-12 (G 1/2")

info.ch@bucherhydraulics.com

www.bucherhydraulics.com

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