

**Stacking Pressure Reducing Valve, 10 mm
With integral Bypass Check Valve, Seated Pilot Stage,
Spool-type Main Stage, Series SDRB ...**



- 350 bar, 100 l/min
- With two-stage 10 mm pressure reducing cartridge DRPA-5-10 ...
- 350 bar, 100 l/min on all ports
- Pilot stage is drained to port T
- Optionally available with hand knob or lockable hand knob adjuster
- Also available with solenoid controlled two-pressure cartridge WDRVPB-5...-10
- Mounting interface to ISO 4401 / CETOP R35H size 5, NFPA D05, DIN 24 340 A10

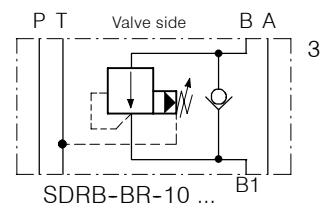
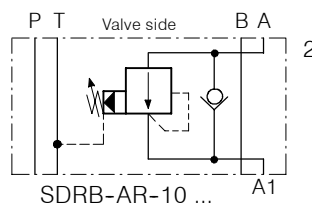
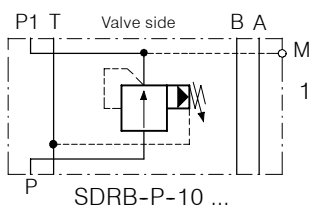
1. Description

Series SDRB...-10 stack valves are used as pressure reducing valves in the P-, A- or B-lines. They are equipped with the two-stage pressure reducing cartridge type DRPA-5-10..., the pilot stage is drained to port T. While the pressure in P1 (A1, B1) remains below the valve setting, the connection P → P1 (A → A1, B → B1) remains fully open. As soon as the pressure in P1

(A1, B1) rises above the setting, the pressure reducing function becomes active. The control spool holds the pressure in P1 (A1, B1) at the valve setting, independently of the primary pressure at P (A, B). Pilot flow occurs only while the reducing function is active and is approximately 300 cc/min (see Performance graphs). Model SDRB-

P-10... is provided with a G 1/4" gauge connection on the secondary pressure side. The bypass check valve in models SDRB-AR / BR-10... allows reverse flow from A1 to A or B1 to B. The screw-in design of the cartridge valve provides for straight-forward, trouble-free maintenance. Interface sealing is by means of a seal plate and 5 O-rings.

2. Symbols



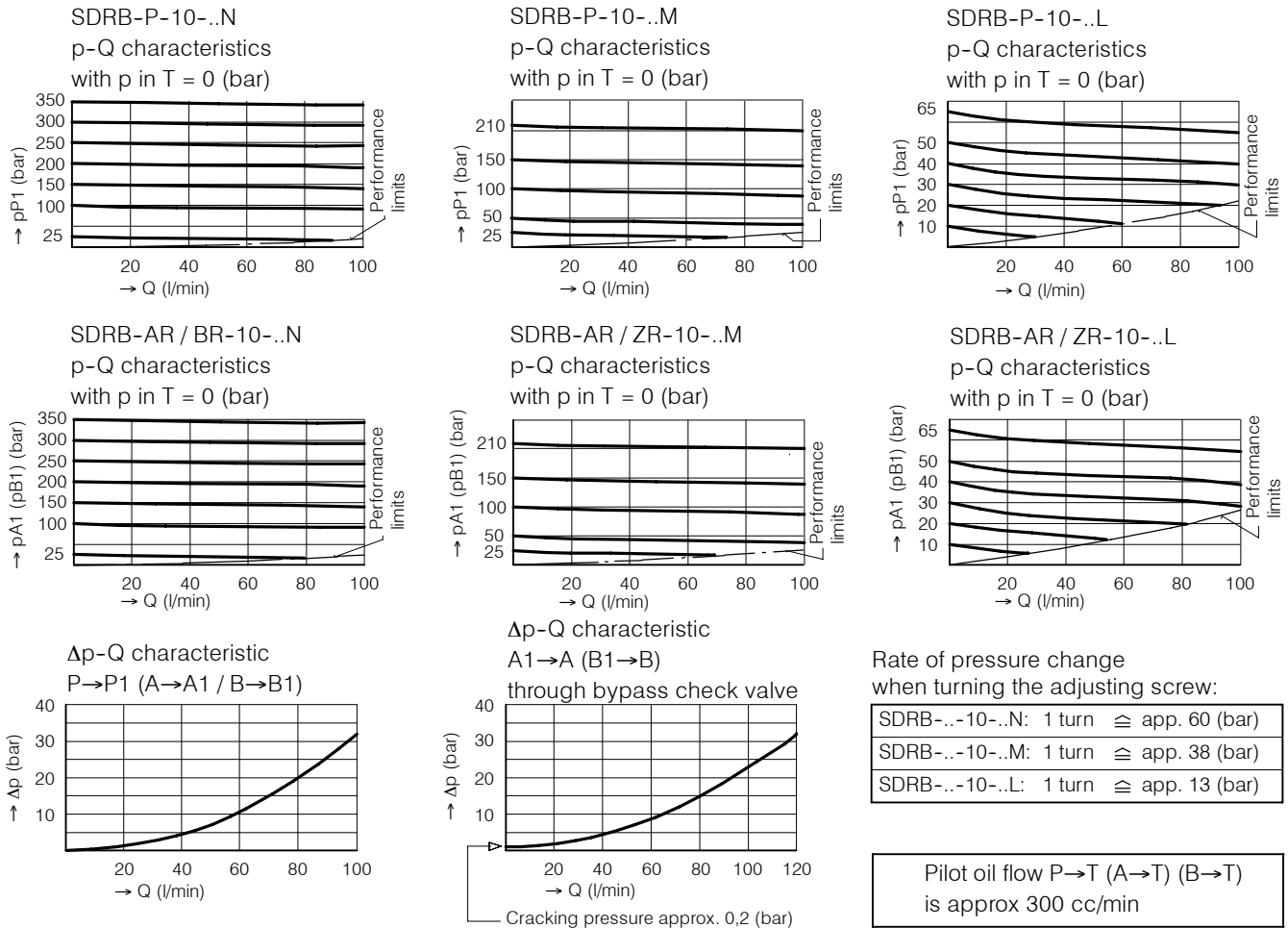
3. Main characteristics

Designation		stacking pressure reducing valve
Design		two-stage, seated pilot, sliding spool
Mounting method		stack mounting
Size		ISO 4401 size 5 interface
Weight	kg	SDRB-P-10 ... = 2,90, SDRB-AR / BR-10 ... = 3,0
Mounting attitude		unrestricted
Flow direction		see symbols
Operating pressure range	bar	... 350 in P, A, B and T
Adjustment ranges	bar	pressure range N = 010 ... 350 pressure range M = 010 ... 210 pressure range L = 010 ... 065
Flow rate, Qmax	l/min	1 ... 100, see performance limits

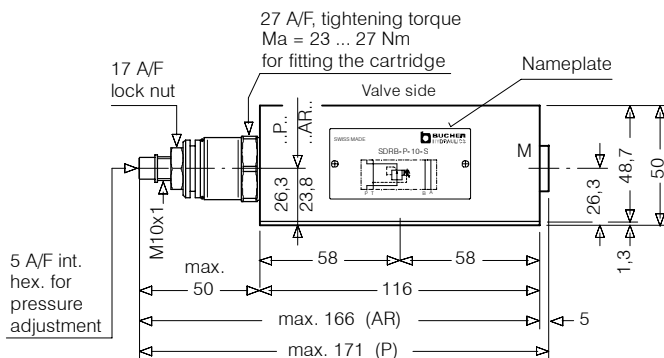
Fluids		HL and HLP hydraulic oils to DIN 51 524; for other fluids, please consult BUCHER
Fluid temperature range	°C	-25 ... +80
Ambient temperature	°C	-25 ... +80
Viscosity range	mm ² /s (cSt)	10 ... 650, recommended 15 ... 250
Minimum fluid cleanliness level		18/14 to ISO 4406 / CETOP RP70H; 8 ... 9 to NAS 1638

4. Performance graphs

Measured with oil viscosity 33 mm²/s (cSt)



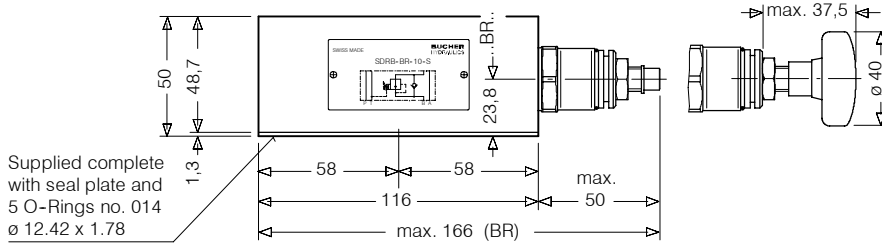
5. Dimensions



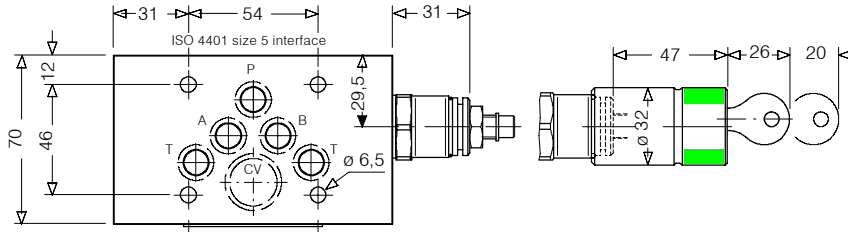
Adjuster style S
(Standard)

OPTIONS

Adjuster style H
Hand knob (can be fitted later by user)



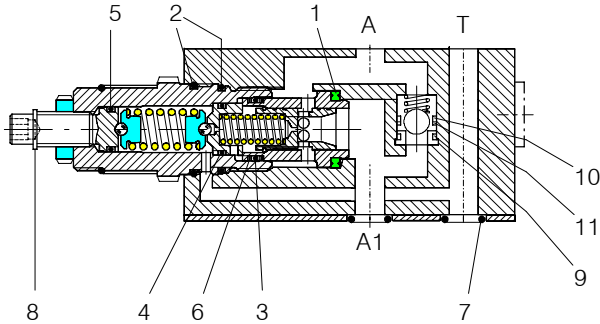
Adjuster style Z4
Lockable hand knob type 2H complies with Volkswagen Factory Specification BV 1.09 (factory option only)



6. Schematic section

showing the relevant ports

Ex. SDRB-AR-10 ...



Seal kit no. DS-220, comprising:

ltn.	Qty.	Description	Size
1	1	Seal	Ø 22,1 x 16,5 x 2,5
2	2	O-ring no. 020	Ø 21,95 x 1,78 N90
3	1	O-ring	Ø 14 x 2
4	1	O-ring no. 013	Ø 10,82 x 1,78 N90
5	1	O-ring no. 012	Ø 9,25 x 1,78 N90
6	2	Backup ring	Ø 13,7/1,4x1,4 FI0751
7	5	O-ring no. 014	Ø 12,42 x 1,78 N90
8	1	Snap ring	Ø 9 type SS
9	1	O-ring no. 018	Ø 18,77 x 1,78 N90
10	1	O-ring no. 016	Ø 15,60 x 1,78 N90
11	1	Backup ring	Ø 15,3/1,5x1,4 FI0751

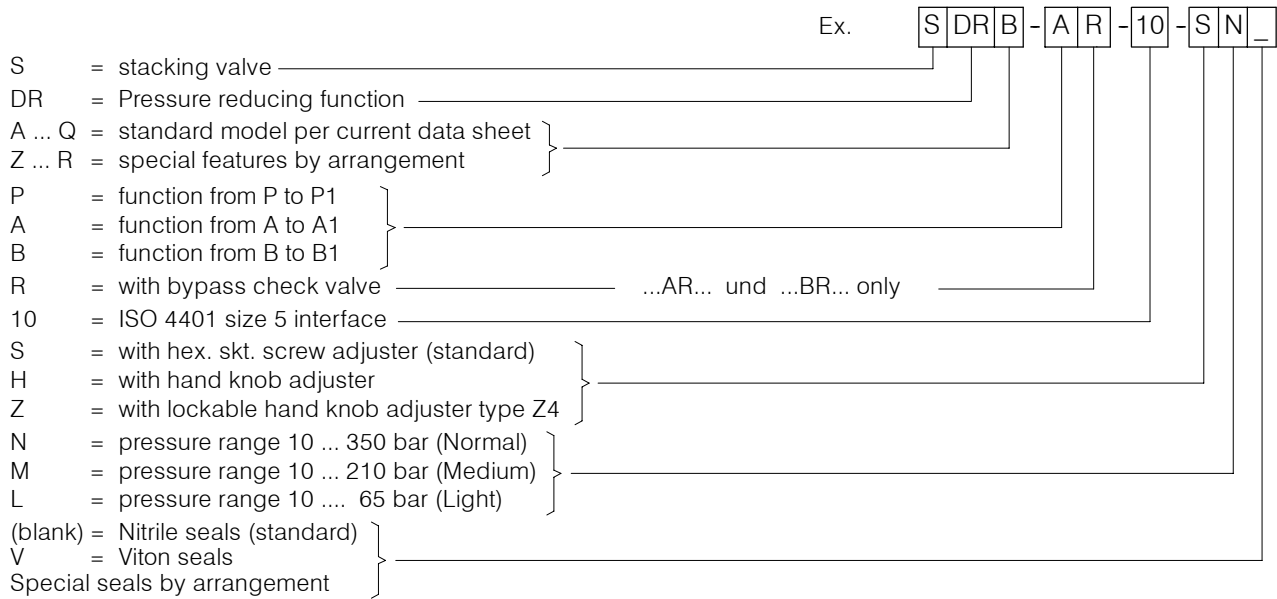
7. Installation and servicing

All installation and servicing must be carried out with care, and by qualified personnel only. At installation, be sure to mount the valve with the correct

faces contacting the adjacent units and with all interface connections lining up properly. When changing seals, the new seals should be thoroughly oiled or

greased before fitting them to the valve. Use the correct tightening torque when fitting the cartridge.

8. Ordering code



9. Related data sheets

Old no.	New no.	
i-00	400-P-010101-E	Table of interface equivalents
i-41	400-P-050101-E	DIN 24 340 size A10 interface
D-4.36	400-P-280201-E	Two-stage pressure reducing cartridge, 10 mm, series DRPA-5-10 ...
G-45	400-P-810901-E	Seal plate type DB-10

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