

## Stacking Anti-Shock Relief Valve, size 2 Direct Acting, Cross-Line Series SDDA ... S



- 250 bar, 25 l/min
- Direct acting, near zero-leakage poppet
- Functional parts in side-mounted body
- Fast response time
- 5 pressure ranges
- User-modifiable to hand knob or lockable hand knob adjustment
- with ISO 4401-02-01 interface

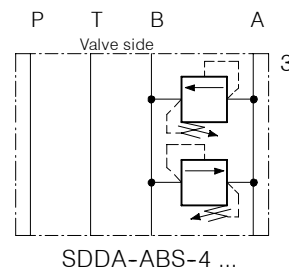
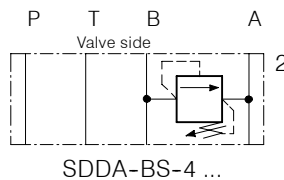
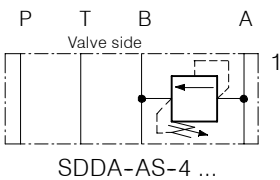
### 1. Description

Series SDDA ... S-4 units are stack mounting anti-shock cross-line relief valves which relieve A to B and/or B to A. They have fast response times, seat valves with near zero-leakage, and

they have the full flow rating of the size 2 range. The  $\varnothing 3$  mm location pin on the actuator face of the valve prevents incorrect mounting. Valves are shipped

as standard with screw adjustment. Alternatively, they can be supplied with adjustment by hand knob, or lockable hand knob.

### 2. Symbols



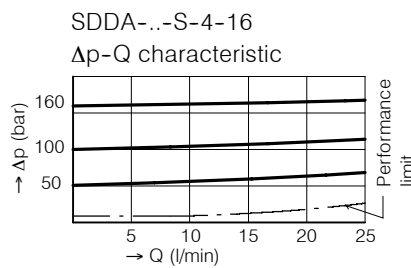
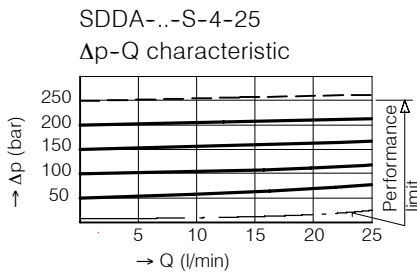
### 3. Main characteristics

Designation		pressure relief slice valve
Design		direct acting seat valve
Mounting method		stack mounting
Size		ISO 4401-02-01 interface
Weight	kg	Model ...AS.../ ...BS...: 0,77/ Model ...ABS...:1,15
Mounting attitude		unrestricted
Flow direction		see symbols
Operating pressure range	bar	... 250 in P, A and B; ... 160 in T
Adjustment ranges	bar	code 25 = ... 250 code 16 = ... 160 code 10 = ... 100 code 04 = ... 040 code 02 = ... 020
Flow rate, Q max.	l/min	25
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 <sup>2</sup> /s (cSt)	10 ... 650, recommended 15 ... 250
Minimum fluid cleanliness level		18/14 to ISO 4406 / CETOP RP70H; 8 ... 9 to NAS 1638

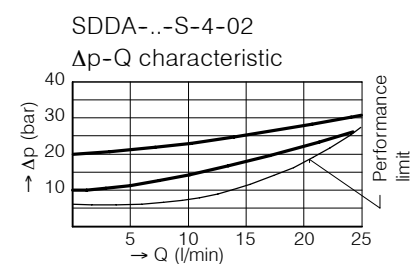
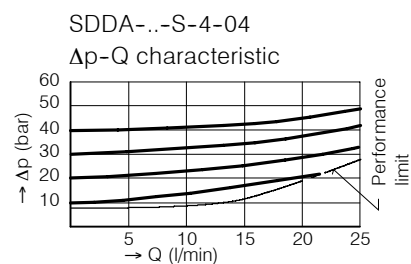
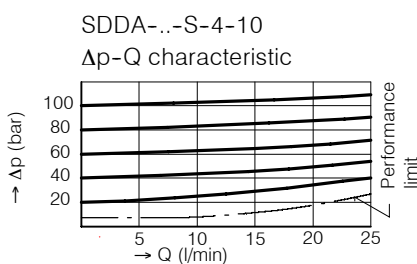
## 4. Performance graphs

Measured with oil viscosity 33 mm<sup>2</sup>/s (cSt)



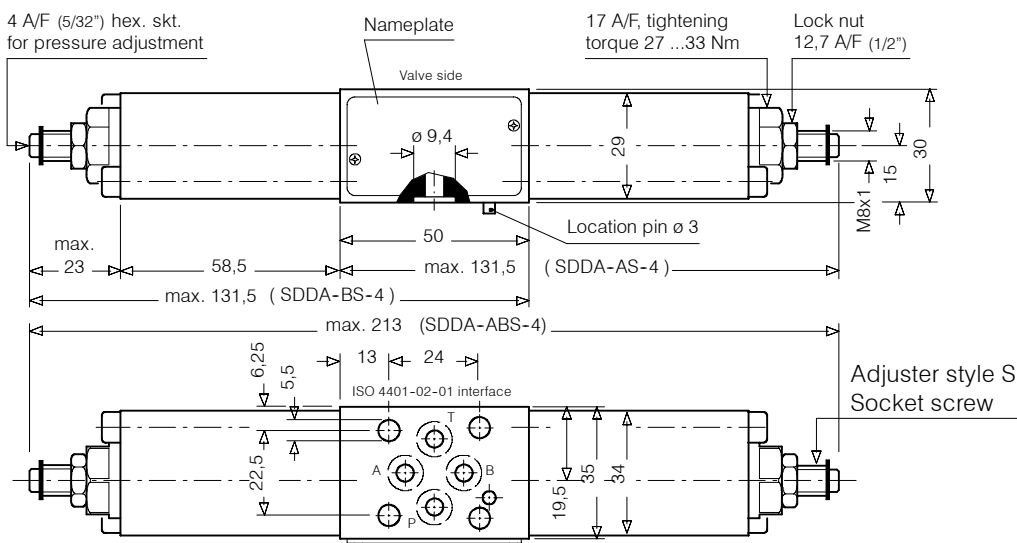
Rate of pressure change when turning the adjusting screw:

SDDA-...S-4-25: 1 turn	≅ app. 45 bar
SDDA-...S-4-16: 1 turn	≅ app. 30 bar
SDDA-...S-4-10: 1 turn	≅ app. 18 bar
SDDA-...S-4-04: 1 turn	≅ app. 6 bar
SDDA-...S-4-02: 1 turn	≅ app. 2,5 bar



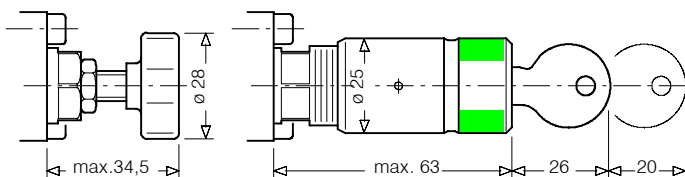
## 5. Dimensions

4 A/F (5/32") hex. skt.  
for pressure adjustment



### Adjuster styles / OPTIONAL

Conversion kit for styles S, H and Z5 - see related data sheets

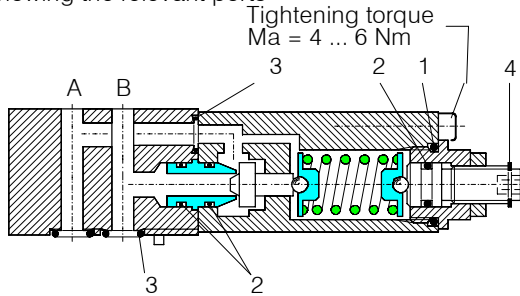


Adjuster style H  
Hand knob

Adjuster style Z5, lockable hand type 2H.  
Complies with Volkswagen factory specification BV 1.09

## 6. Schematic section

showing the relevant ports



Seal kit no. DS-212, comprising \*):

Itm.	Qty.	Qty.	Description	Size
1	2*)	1	O-ring no. 016	Ø 15,60 X 1,78 N90
2	6*)	3	O-ring no. 009	Ø 5,28 x 1,78 N90
3	6*)	5	O-ring no. 010	Ø 6,07 x 1,78 N90
4	2*)	1	Snap ring	Type SS Ø 7

SDDA-AS/BS-4  
SDDA-ABS-4

## 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 the correct way up.

Do not confuse the flat surface (directional valve side) and the surface with O-ring counterbores (actuator side). When changing seals, the new seals

should be thoroughly oiled or greased before fitting them to the valve. Use the correct tightening torques when fitting the threaded housing and cap screws.

## 8. Ordering code

Ex. 

S	D	D	A	-	AB	S	-	4	-	25	-	S	-	-	1
---	---	---	---	---	----	---	---	---	---	----	---	---	---	---	---

- S = stacking valve
- D = pressure relief function
- D = direct acting
- A ... Q = standard model per current data sheet
- Z ... R = special features by arrangement
- A = relief function A to B
- B = relief function B to A
- AB = relief function A to B and B to A
- S = anti-shock, cross-line function
- 4 = ISO 4401-02-02 interface
- 25 = pressure range ... 250 bar
- 16 = pressure range ... 160 bar
- 10 = pressure range ... 100 bar
- 04 = pressure range ... 40 bar
- 02 = pressure range ... 20 bar
- S = with hex. skt. screw adjuster (standard)
- H = with hand knob adjuster type H
- Z = with lockable hand knob adjuster type Z5
- (Blank) = Nitrile seals (standard)
- Z = Viton seals
- For special seals, please consult BUCHER
- 1 ... 9 = design number (omit when ordering)

## 9. Related data sheets

Old no.	New no.	
i - 17.00	400-P-015101-E	Procedure for changing the Adjuster Style
i - 30	400-P-030101-E	ISO 4401-02-01 interface

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