

# Check valve Shuttle

$Q_{\max} = 8 \text{ l/min}$ ,  $p_{\max} = 250 \text{ bar}$

direct acting, ball type

Type series: RWA-2...



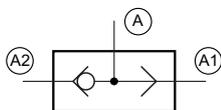
- Screw-in cartridge valve
- For cavity AE
- Untreated
- With two alternative inlets (the unused one is closed) and one outlet
- For drawing pilot oil from two separate power circuits

## Description

The cartridge shuttle valves, series RW..., are size 2, screw-in valves with a G1/8" mounting thread. They are designed on the proven ball/seat design. These valves are suitable for installation in control blocks

and are used to draw pilot oil from two separate power circuits. The valve can be used as a logic element. For self-assembly, please refer to the section related data sheets.

## Symbol



## Technical data

General Characteristics	Description, value, unit
Function group	Check valve
Function	Shuttle
Design	Screw-in cartridge valve
Controls	direct acting
Characteristic	ball type
Construction size	nominal size 2
Thread size	G 1/8"
Mounting attitude	unrestricted
Weight	0.01 kg
Cavity acc. factory standard	For cavity AE
Tightening torque steel	10 Nm
Tightening torque aluminium	10 Nm
Tightening torque tolerance	± 10 %
Minimum ambient temperature	- 25 °C
Maximum ambient temperature	+ 80 °C
Surface protection	Untreated
Available seal types	several seal types available, see ordering code
Seal kit order number	NBR: DS-190-N FKM: DS-190-V

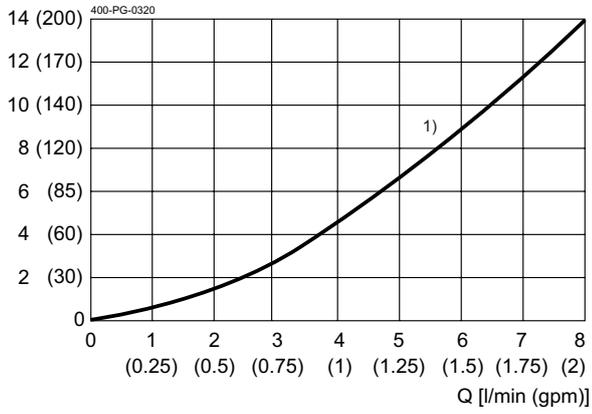
Hydraulic Characteristics	Description, value, unit
Maximum operating pressure	250 bar
Maximum flow rate	8 l/min
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 25 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 650 mm <sup>2</sup> /s (cSt)
Recommended viscosity range	15 ... 250 mm <sup>2</sup> /s (cSt)
Minimum fluid cleanliness (cleanliness class according to ISO 4406:1999)	class 20/18/15

## Performance graphs

measured with oil viscosity 33.0 mm<sup>2</sup>/s (cSt)

$\Delta p = f(Q)$  Pressure drop-flow rate characteristic

$\Delta p$  [bar (psi)]

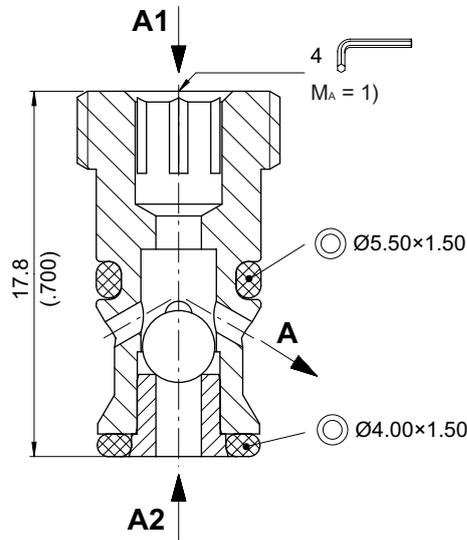


1 = A2 → A, A1 → A

## Dimensions and sectional view

**Beispiel für die Masseinheit:  
Example for the dimensional units:**

0.79 = 0.79 mm millimeter  
(.031) = 0.031" inch



## Installation information



**NOTE!**

1) When fitting the screw-in cartridge valve, use the specified tightening torque. The value can be found in the chapter "Technical data".



**NOTE!**

The seals are not available individually. The seal kit order number can be found in the chapter "Technical data".



**ATTENTION!**

Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.

## Ordering code

Ex. 

R	W	A	-	2	-	1
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- R = check valve
- W = shuttle function
- A ... Q = standard model according to valid data sheet (*standard*)
- Y ... R = special model after consultation
- 2 = nominal size 2
- (blank) = NBR (nitril-butadien-rubber / BUNA) seals (*standard*)
- V = FKM (fluorocarbon rubber / VITON) seals  
(*special seals - please consult BUCHER*)
- 1 ... 9 = technical design no. (omit when ordering)

## Related data sheets

Reference	Description
400-P-040011	Form tools
400-P-040121	Cavity AE