

- Check valves size 04 ... size 25
- Plate-type, Push-in design, invertible
- up to 140 l/min, 350 bar (500 bar on request)



## Description

Series RVC units are push-in check valve cartridges.

Identical cavities allow the replacement with valves of the series RKVC.

The valves prevent flow in direction B → A (see symbol). In the opposite direction, there is a range of opening pressures from 0,1 to 2 bar. The no flow direction can be reversed by inverting the valve in its cavity.

The units are spring-closed plate valves with hardened body, seat and valve plate. The sealing faces are diamond-lapped.

External O-rings seal the leakage path between the valve and cavity wall.

A “metered check” function can be easily created by providing an orifice in the centre of the valve plate.

The valves can be used for pressure relief in the opening direction, but only to a limited extent (consult Aroflex for such applications).

Advantages:

- virtually leak-free
- high pressure rating
- various opening pressures
- particularly suitable for use as suction valve
- Option: metered flow in the no-flow direction through an orifice
- no-flow direction can be reversed
- in conjunction with an ESH threaded mounting sleeve, they can be used as a screw-in valve

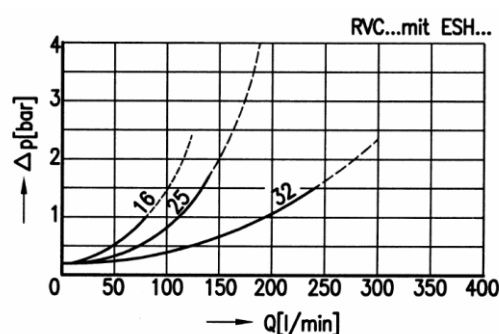
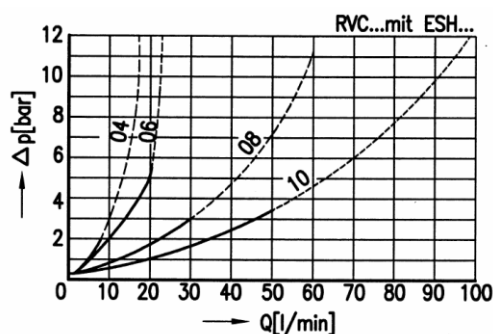
## Technical Data

General Specifications	RVC
Design:	guided plate design
Mounting method:	push-in cartridge
Size:	nominal 04 ... 25 (see table Dimensions)
Mounting position:	unrestricted

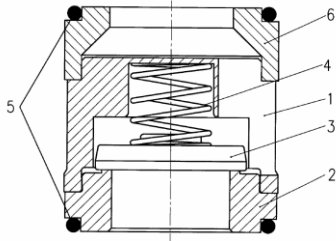
Hydraulic Specifications	
No-flow direction:	B → A (see symbol)
Max. pressure:	350 bar (500 bar on request)
Opening pressure range:	0,1 ... 2 bar for all sizes
Max. flow:	140 l/min
Fluid:	hydraulic oils HL and HLP according DIN 51524
Temperature range:	-30°C ... + 80°C
Viscosity range:	10 ... 500 mm <sup>2</sup> /s (cSt)
Min. fluid cleanliness	18/14 to ISO 4406 / CETOP RP70H 8 ... 9 to NAS 1638

## Characteristics

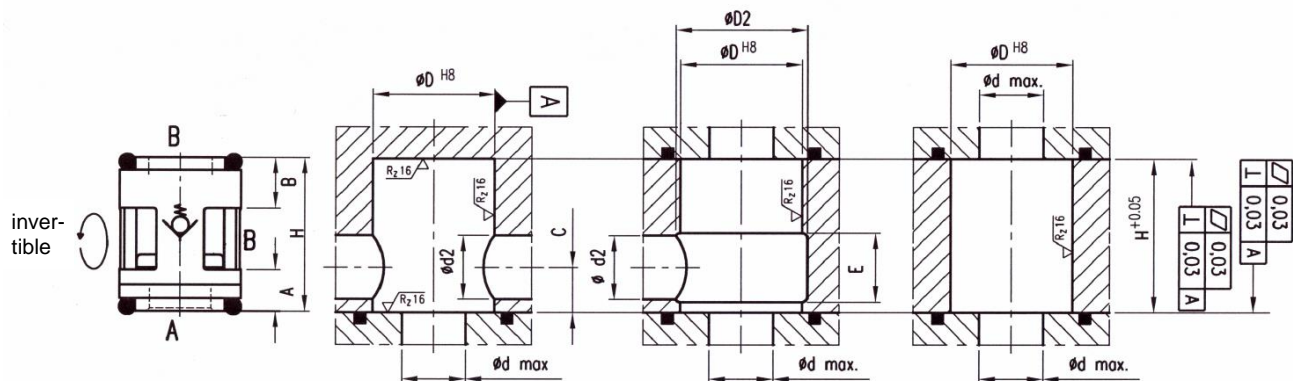
oil viscosity 33 mm<sup>2</sup>/s (cSt)



**Dimensions**

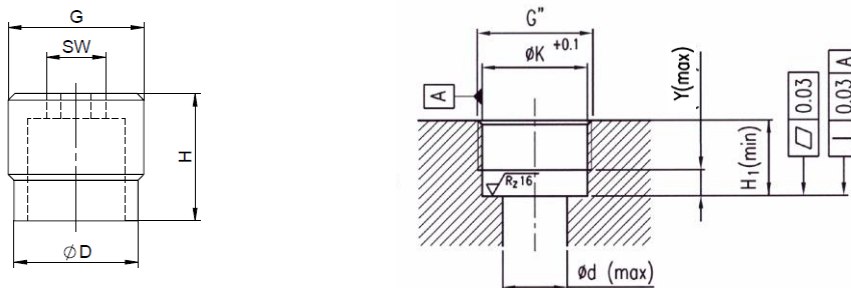


Item	Qty.	Description
1	1	Valve body
2	1	Valve seat
3	1	Valve plate
4	1	Spring
5	2	O-ring
6	1	Press-fit ring



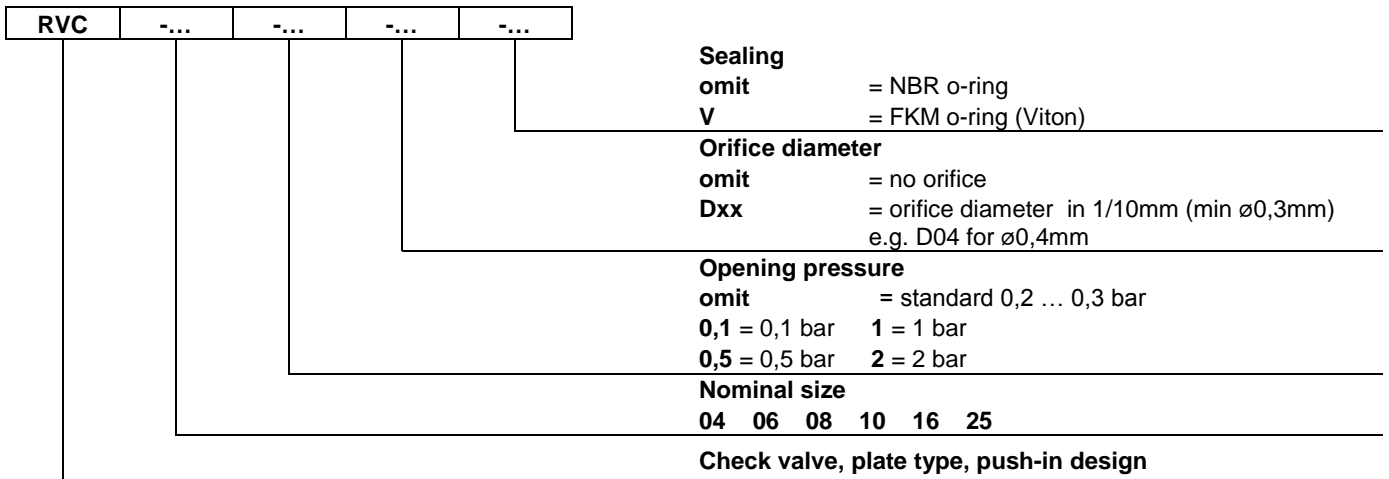
	$Q_{Nom.} = Q_{max.}$ (l/min)	$\varnothing D$	$\varnothing D_2$	$\varnothing d_{max}$	$\varnothing d_2$	A	B	C	E	H	o-ring (2 pcs)
RVC-04-...	8	8,5	11	4	5	3,4	5,0	6,8	5,6	13,5	6,2 x 1,0
RVC-06-...	15	11,5	14	6	6	3,9	4,8	7,3	6,5	14,5	8,5 x 1,5
RVC-08-...	30	15,0	18	8	9	3,9	5,5	8,5	9,5	17,0	12,0 x 1,5
RVC-10-...	50	19,0	22	11	11	5,1	6,5	10,0	11,5	20,0	16,0 x 1,5
RVC-16-...	80	24,5	28	15	14	5,1	6,5	11,5	14,5	23,0	20,0 x 2,0
RVC-25-...	140	30,5	35	20	20	7,3	7,8	14,0	20,0	28,0	25,0 x 2,5

**Mounting sleeve ESH**



	G	$\varnothing D$	$\varnothing K$	$\varnothing d_{max}$	H	Y	width across flats SW	Tightening torque (Nm)	used with
ESH-06	G1/4"	11,5	11,75	4	17,0	4	4	10	RVC-04-...
ESH-08	G3/8"	14,9	15,25	6	18,5	5	6	20	RVC-06-...
ESH-10	G1/2"	18,7	19,00	8	21,0	6	8	40	RVC-08-...
ESH-16	G3/4"	24,2	24,50	11	25,0	7	10	80	RVC-10-...
ESH-25	G1"	30,2	30,50	15	29,0	9	14	160	RVC-16-...
ESH-32	G1 1/4"	39,0	39,50	20	34,0	11	19	250	RVC-25-...

**Type code**



**Options on request:**

- other opening pressures
- orifice for metered flow
- special materials
- customised design

**Ordering example**

- Check valve, plate type, push-in design
- Nominal size 06
- Opening pressure 1 bar

} **Type code**  
**RVC-06-1**

**Design and installation notes**

The installation dimensions and tolerances must be maintained.

Referring to the free-flow direction, nozzles and orifices must not be situated directly before the check valve.

When fitting the valve, take particular care to ensure, that the valve is firmly seated on the sealing surface

Use the specified tightening torque when fitting the valve with the mounting sleeve.

Recommendation: before installing the valve, fit the O-ring in the cavity.

**Application notes**

The maximum operating pressure must not be exceeded and any pressure peaks must be taken into consideration.

The specified nominal flow rate must not be exceeded. In applications such as accumulator circuits, where sudden pressure can be applied to the valve in the free-flow direction, ensure that the specified flow ratings are not exceeded.

In dynamic accumulator circuits, use the internally damped RKVC valves.

Buyers bear the sole responsibility for ensuring that the selected products are suitable for their applications. Buyers normally establish this by undertaking qualification programs on test stands, or evaluating the performance of prototype machines or systems.