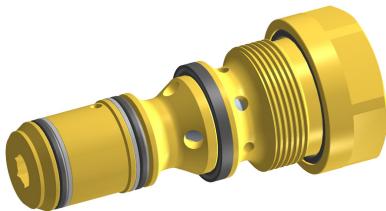


Cartridge Check Valve, Size 10

$Q_{\max} = 120 \text{ l/min}$, $p_{\max} = 350 \text{ bar}$
Pilot operated, with external-drain, two-stage
Series REPYB...



- Seated pilot stage
- With external pilot-drain port Y
- Zero-leakage shut-off in one direction
- High flow rates
- All exposed parts with zinc-nickel plating
- Can be fitted in a line-mounting body

1 Description

These pilot-operated check valves are size 10, two stage, high performance screw-in cartridges with an M32 x 1.5 mounting thread. The conical-seat design ensures that the cartridges are leak-tight from A1 → A. The check function can be overridden by applying a suitable pilot pressure at port X. In the A → A1 direction, flow can pass freely through the valve (opening pressure in A > 2 bar). In series REPYB-10... cartridge check valves, the leakage oil from the pilot piston is externally drained through port Y. This series is used where the pressure in the A line can be more than 20 % of the pressure in X while the valve is piloted open

(oil flow A1 → A). If this situation will not arise, series REPB-... cartridge check valves with internal leakage-oil drain can be used. These screw-in cartridges are predominantly used in certain mobile and industrial applications to maintain the position of loaded actuators (e.g. cylinders or motors) after the pump pressure has been disconnected. All external parts of the cartridge are zinc-nickel plated to DIN 50 979 and are thus suitable for use in the harshest operating environments. If you intend to manufacture your own cavities or are designing a line-mounting installation, please refer to the section "Related data sheets".

2 Symbol



REPYB-10... REPB-10...
(Data sheet 400-P-456101-E)

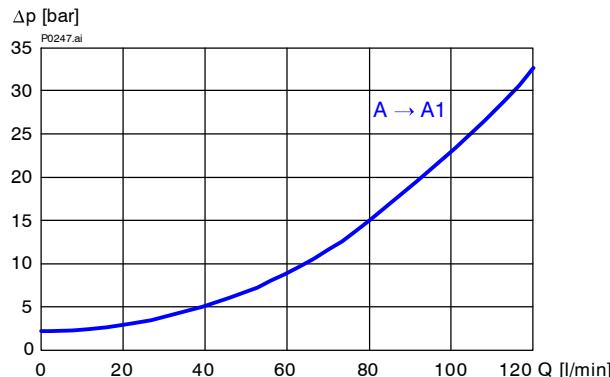
3 Technical data

General characteristics	Description, value, unit
Designation	cartridge check valve
Design	pilot operated, with external-drain, two-stage
Mounting method	screw-in cartridge M32 x 1.5
Tightening torque	200 Nm \pm 10 %
Size	size 10, cavity type RCY (with Y port)
Weight	0.40 kg
Mounting attitude	unrestricted
Ambient temperature range	-25 °C ... +80 °C

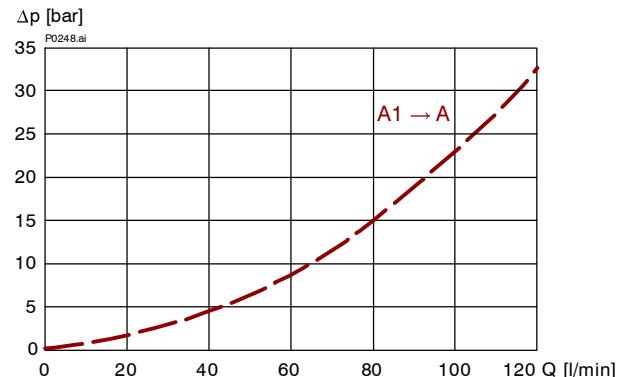
Hydraulic characteristics	Description, value, unit
Maximum operating pressure	350 bar
Maximum flow rate	120 l/min
Flow direction	shut-off direction A1 → A leak-free, A → A1 check-valve function (opening pressure in A > 2 bar)
Pilot pressure at the X port	2...45 bar (permissible ...350 bar)
Opening pressure	> 2 bar (A → A1)
Geometric opening ratio	1 : 8.8
Hydraulic fluid	HL and HLP mineral oil to DIN 51 524; for other fluids, please contact BUCHER
Hydraulic fluid temperature range	-25 °C ... +80 °C
Viscosity range	10...650 mm ² /s (cSt), recommended 15...250 mm ² /s (cSt)
Minimum fluid cleanliness	class 20/18/15
Cleanliness class to ISO 4406 : 1999	

4 Performance graphs [measured with oil viscosity 33 mm²/s (cSt)]

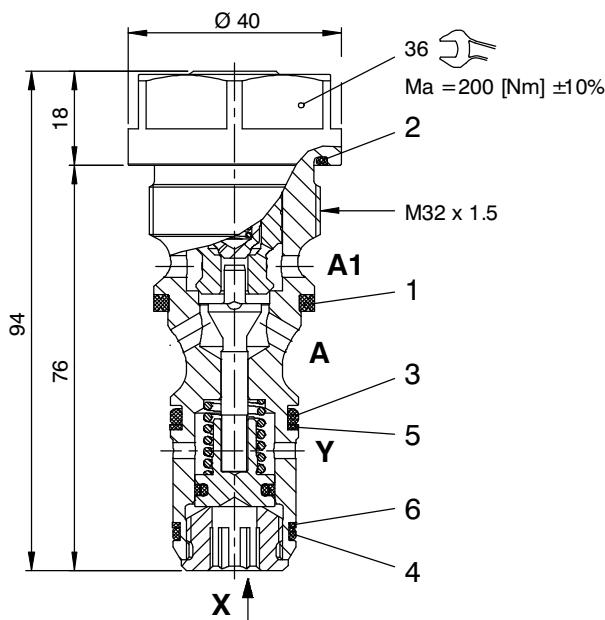
$\Delta p = f (Q)$ Pressure drop - Flow rate characteristic



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



5 Dimensions & sectional view



Pilot pressure in port X:

$$pX = 0.11 p A1 + 6 \text{ [bar]}$$

6 Installation information



IMPORTANT!

When fitting the cartridges, use the specified tightening torque. No adjustments are necessary, since the cartridges are set in the factory.



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.

Seal kit NBR no. DS-301-N 1)

Item	Qty.	Description
1	1	Seal ring $\varnothing 30,15 \times 24,55 \times 3,05$
2	1	O-ring no. 026 $\varnothing 31,47 \times 1,78$ N90
3	1	O-ring no. 116 $\varnothing 18,72 \times 2,62$ N90
4	1	O-ring no. 019 $\varnothing 20,35 \times 1,78$ N90
5	1	Backup ring $\varnothing 17,70 \times 2,15 \times 1,00$ FI0751
6	1	Backup ring $\varnothing 18,30 \times 1,35 \times 1,00$ FI0751

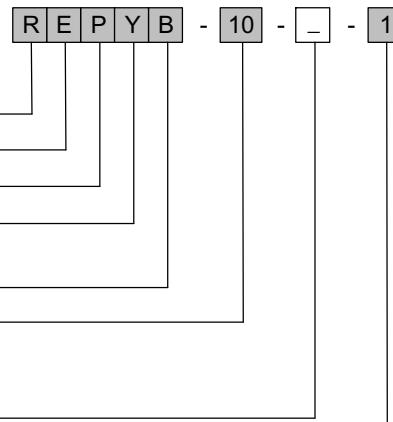


IMPORTANT!

1) Seal kit with FKM (Viton) seals no. DS-301-V

7 Ordering code

R	= cartridge check valve
E	= pilot operated to open
P	= cartridge design
Y	= with external drain
A ... Q	= standard model - see relevant data sheets
Z ... R	= special features - please consult BUCHER
10	= nominal size 10
(blank)	= NBR (Nitrile) seals (standard)
V	= FKM (Viton) seals (special seals - please contact BUCHER)
1 ... 9	= design stage (omit when ordering new units)



8 Related data sheets

Reference	(Old no.)	Description
400-P-040011	(i-32)	The form-tool hire programme
400-P-060161	(i-45.9)	Cavity type RCY (with Y port)
400-P-740211	(G-24.51)	Line-mounting body, type GCRA (G 1/2")
400-P-456101	(R-6)	Cartridge check valve, type REPB... (with internal-drain)