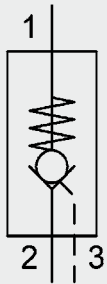


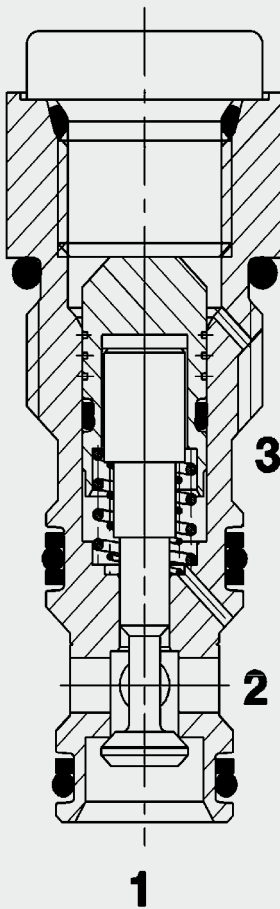
Check Valve Pilot-to-Open Poppet Type, Direct-Acting SAE-08 Cartridge – 420 bar

RP08A-01

38 l/min
420 bar



FUNCTION



The pilot-to-open check valve RP08A is a direct-acting, spring-loaded poppet valve.

The valve allows flow from port 2 to 1. In the opposite direction, the poppet is pressed onto the seat and blocks flow. If a sufficiently high control pressure is applied at port 3, the poppet is lifted from the valve seat and oil flows from 1 to 2. The necessary pilot pressure at port 3 is dependent on the pressures across port 1 and 2.

The following applies: $p_{\text{control}} = \frac{p_{\text{port 1}} - p_{\text{port 2}}}{\varphi} + p_{\text{port 2}}$

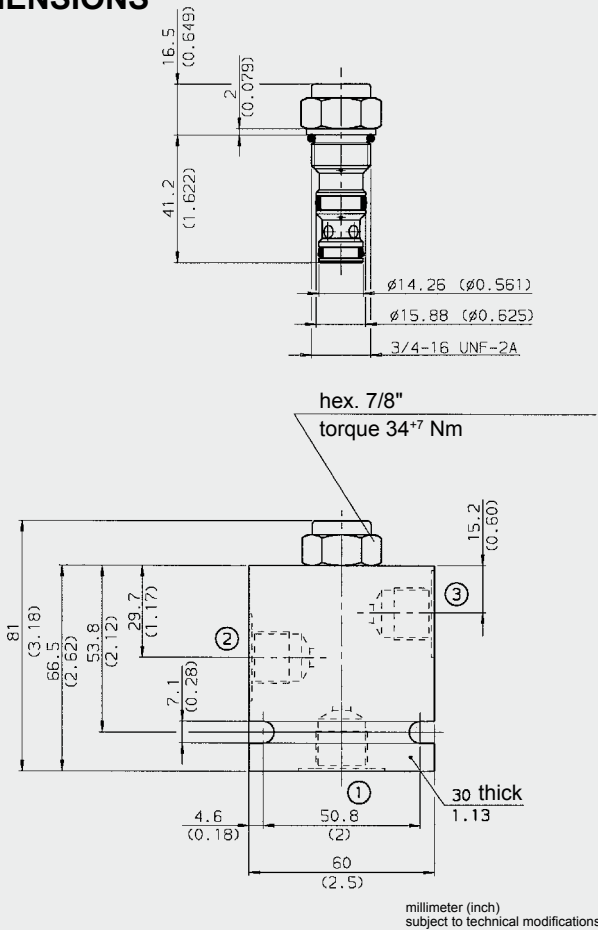
FEATURES

- Corrosion protection of external surfaces through blue zinc-plating or thermochemical Nitrotec coating (black)
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Low pressure drop due to CFD optimized flow path
- Spring return in the pilot stage for safe valve operation
- Quick response
- Low leakage design
- Optional pilot piston seal

SPECIFICATIONS

Operating pressure:	max. 420 bar
Nominal flow:	max. 38 l/min
Leakage:	leakage-free (max. 5 drops \approx 0,25 cm ³ /min at 350 bar)
Leakage 2→3:	< 5 l/min at 420 bar (40 °C HLP 46) For versions without O-ring on pilot piston
Cracking pressure	1.00 bar
Pilot ratio:	3:1 ; 4:1
Media operating temperature range:	-30 °C to +100 °C
Ambient temperature range:	-30 °C to +100 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	7.4 to 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Installation:	No orientation restrictions
Material:	Valve body: steel Pilot: steel Poppet: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
Cavity:	FC08-3
Weight:	0.088 kg

DIMENSIONS



MODEL CODE

RP08A-01 - C - NS - 15- 4

Basic model _____
Check valve, pilot-to-open UNF

Body and ports* _____
C = cartridge only
SB3 = G3/8 ports, steel body
AB3 = G3/8 ports, aluminium body

Seals _____
N = NBR
NS = NBR with piston seal
V = FKM
VS = FKM with piston seal

Cracking pressure _____
15 = 1 bar (15 PSI)

Pilot ratio _____
3 = 3:1
4 = 4:1

Standard models

Model code	Part No.
RP08A-01-C-N-15-3	561916
RP08A-01-C-N-15-4	561918
RP08A-01-C-NS-15-3	561917
RP08A-01-C-NS-15-4	561919

Other models on request

*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH083-SB3	560922	Steel, zinc-plated	G3/8	420 bar
FH083-AB3	3011427	Aluminium, anodized	G3/8	210 bar

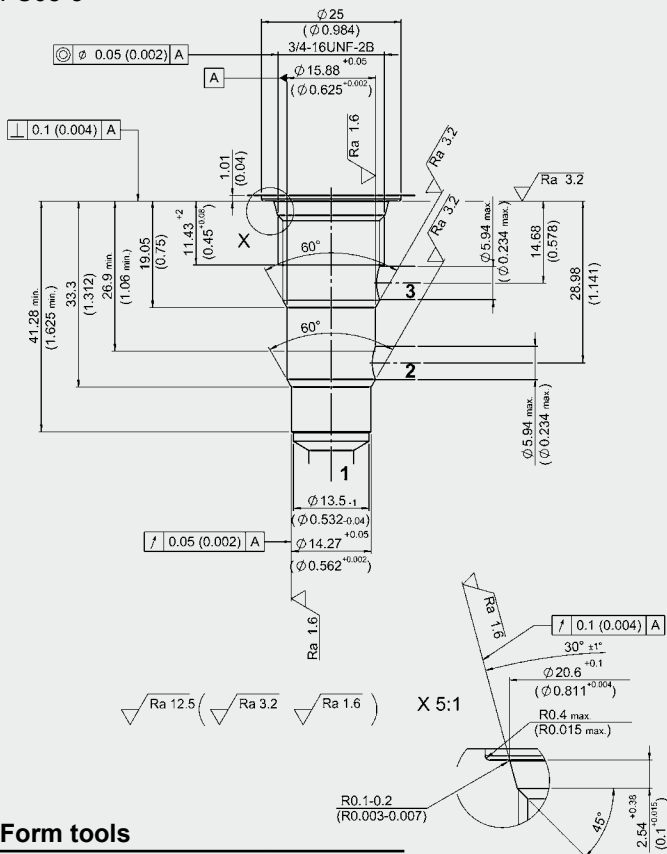
Other models on request

Seal kits

Code	Part No.
Seal kit FS083-N	3054795
Seal kit FS083-V	2591059

CAVITY

FC08-3

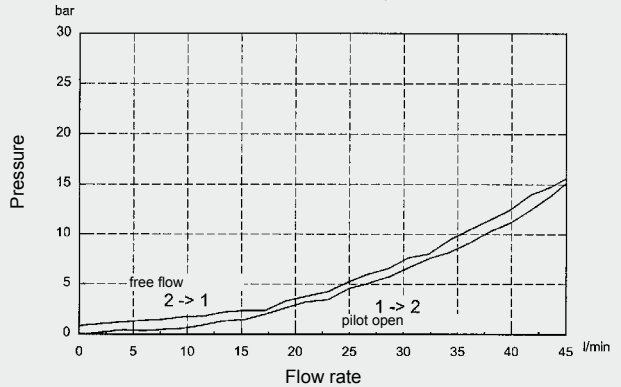


Form tools

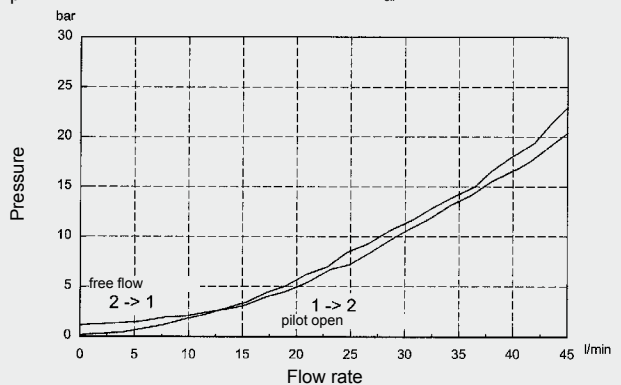
Tool	Part No.
Countersink FC08-3	175644
Reamer FC08-3	175645

PERFORMANCE

phi=3:1 Measured at $v = 34 \text{ mm}^2/\text{s}, T_{\text{oil}} = 46 \text{ }^\circ\text{C}$



phi=4:1 Measured at $v = 34 \text{ mm}^2/\text{s}, T_{\text{oil}} = 46 \text{ }^\circ\text{C}$



NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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