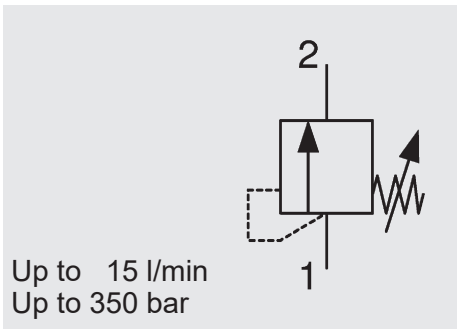
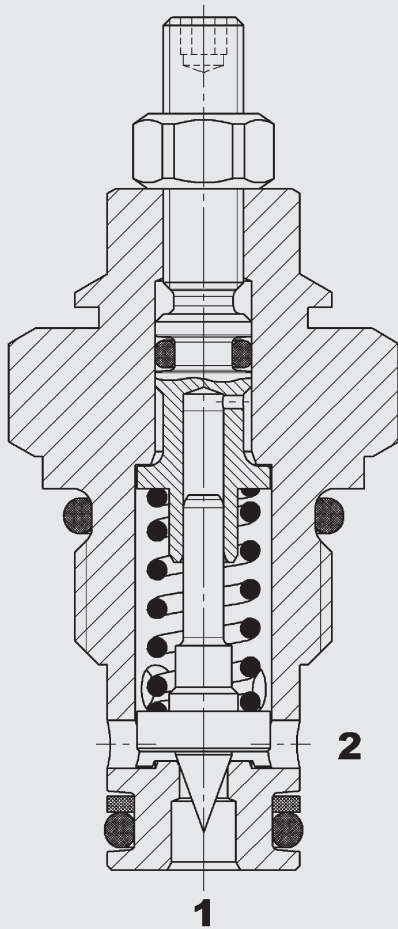


Pressure Relief Valve poppet type, direct-acting Metric Cartridge – 350 bar DB3E-02



FUNCTION



The pressure relief valve is a direct-acting, spring-loaded poppet valve. Its function is to relieve pressure in the system. The spring exerts a force on the poppet and presses it on the valve seat. On the opposite side, the system pressure exerts force on port 1 of the valve. If the hydraulic pressure is below the pre-set spring tension, the valve is closed. Only if the hydraulic force exceeds the pre-set spring tension does the valve open and flow is diverted to tank via port 2.

Important: Pressures at port 2 are additive to the opening pressure.

If the connections are incorrect or if the pressure has been set above the operating pressure, the effect of the valve is disabled.

FEATURES

- Low hysteresis
- Guided poppet
- Adjustable throughout entire pressure range
- Various pressure ranges up to 350 bar
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 350 bar max. 100 bar at port 2 (tank)
Nominal flow:	15 l/min
Operating pressure ranges:	5 to 50 bar 10 to 100 bar 10 to 250 bar 20 to 350 bar
Leakage:	leakage-free max. 5 drops/min (0,25 cm ³ /min) at 80% of nominal setting pressure at port 1
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. +100 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 - 1200 years, according to DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: steel Piston: Hardened and ground steel Seals: FKM (standard) NBR (optional, media temperature range -30 °C to +100 °C) Back-up rings: PTFE
Cavity:	05220
Weight:	0.053 kg

*see "Conditions and instructions for valves" in brochure 53.000

MODEL CODE

DB3E - 02 - C - V - 350 V 250

Basic model

Pressure relief valve, metric

Type

02 = standard

Body and ports:

C = Cartridge only

Seals

V = FKM (standard)

N = NBR

Pressure setting range

50 = 5 up to 50 bar

100 = 10 up to 100 bar

250 = 10 up to 250 bar

350 = 20 up to 350 bar

Other pressure ranges on request

Type of adjustment

V = Allen head (standard)

F = fixed setting, cannot be adjusted

C = with sealing cap, adjustment lock

Other types of adjustment on request

Opening pressure setting

No details = no setting, spring relaxed

250 = opening pressure in bar pre-set by manufacturer

Setting on request

Standard models

Model code	Part No.
DB3E-02-C-V-050V	716125
DB3E-02-C-V-100V	716147
DB3E-02-C-V-250V	716146
DB3E-02-C-V-350V	397405

Other models on request

Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
R05220-01X-01	277372	steel, zinc-plated	G3/8"	350 bar

Other line bodies on request

Seal kits

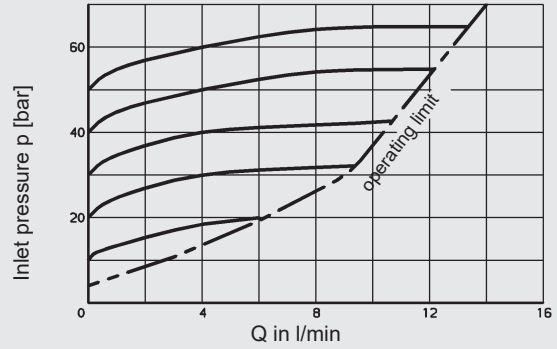
Code	Part No.
SEAL KIT DB3E...FKM	715797

Accessories for type of adjustment V

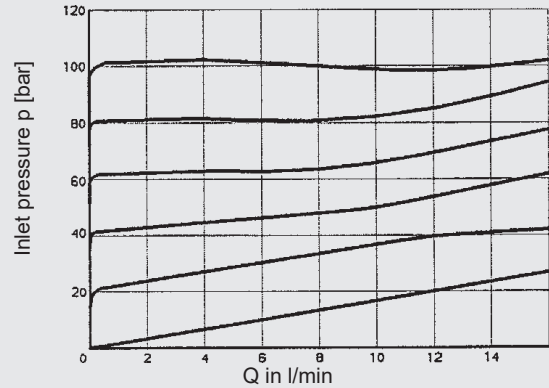
Code	Material	Part No.
Sealing cap, black	polyamide	3882068

PERFORMANCE

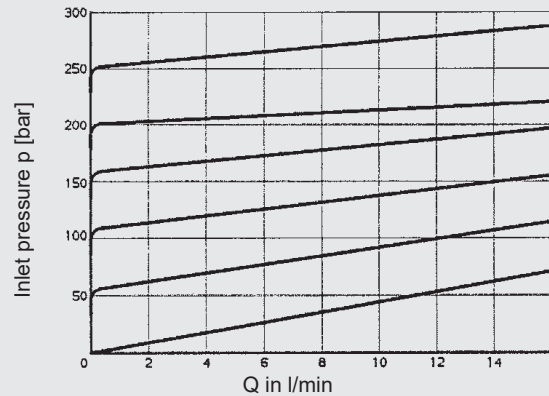
Pressure range ... 50 bar



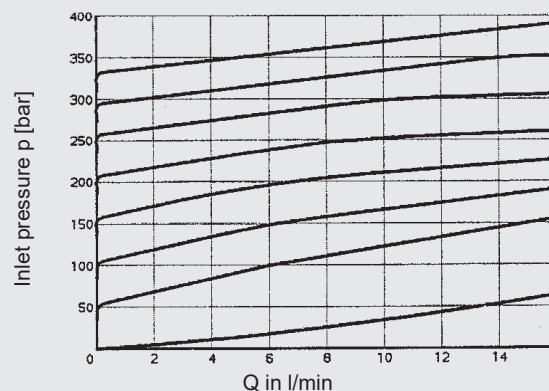
Pressure range ... 100 bar



Pressure range ... 250 bar

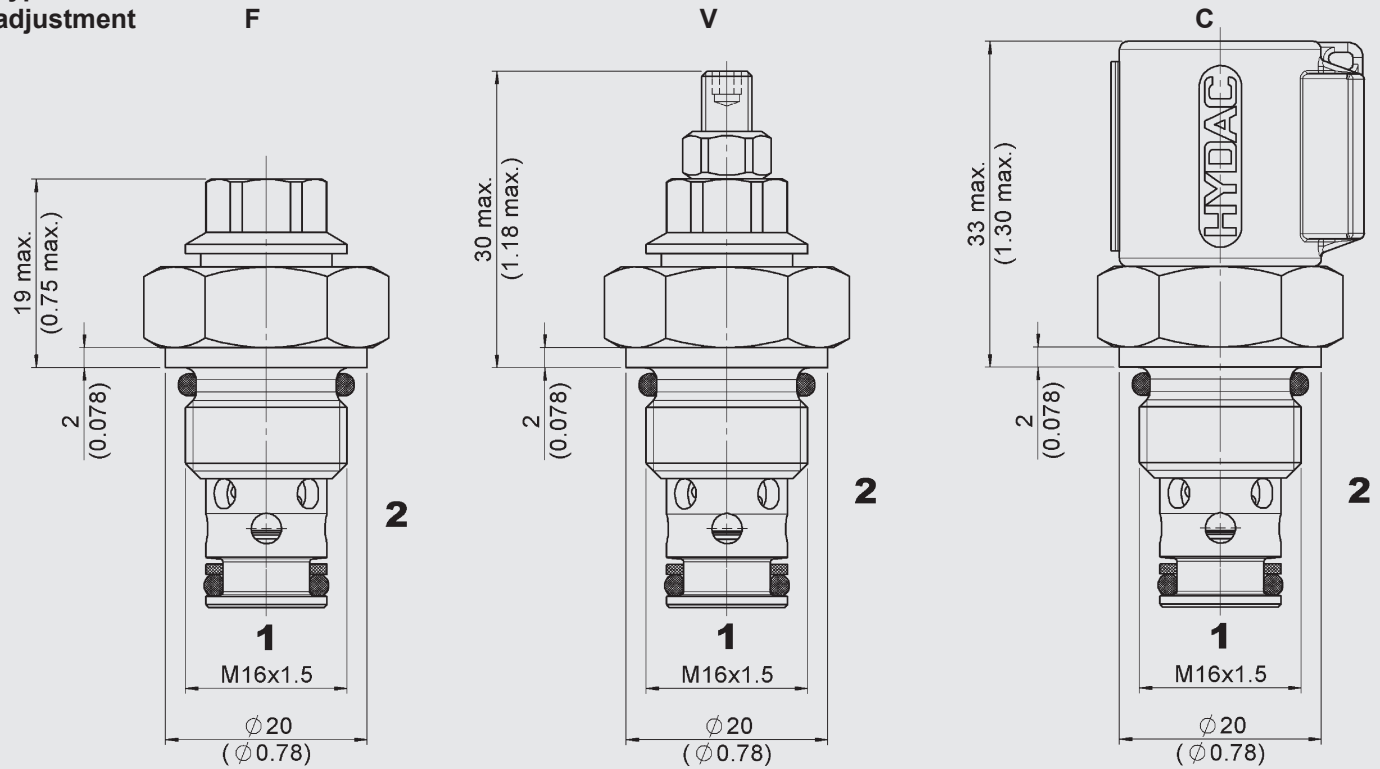


Pressure range ... 350 bar



DIMENSIONS

Type of adjustment



Torque:

Steel manifold (ultimate tensile strength < 360 N/mm²): 30 Nm

Aluminium manifold (ultimate tensile strength < 330 N/mm²): 30 Nm

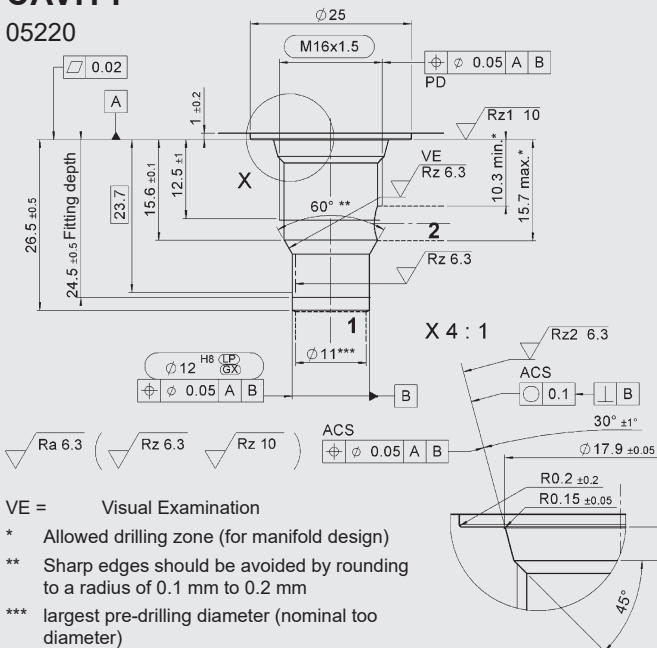
(tool acc. to DIN EN 6789, tool type II class A or B)

For further informations see brochure No. 53.000 "Conditions and instructions for valves"

Millimeter
Subject to technical modifications

CAVITY

05220



VE = Visual Examination

* Allowed drilling zone (for manifold design)

** Sharp edges should be avoided by rounding to a radius of 0.1 mm to 0.2 mm

*** largest pre-drilling diameter (nominal too diameter)

Form tools

Tool	Part No.
Countersink	170040
Reamer	1014203
Tap	1002605
Plug gauge	172827

Millimeter
Subject to technical modifications

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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