

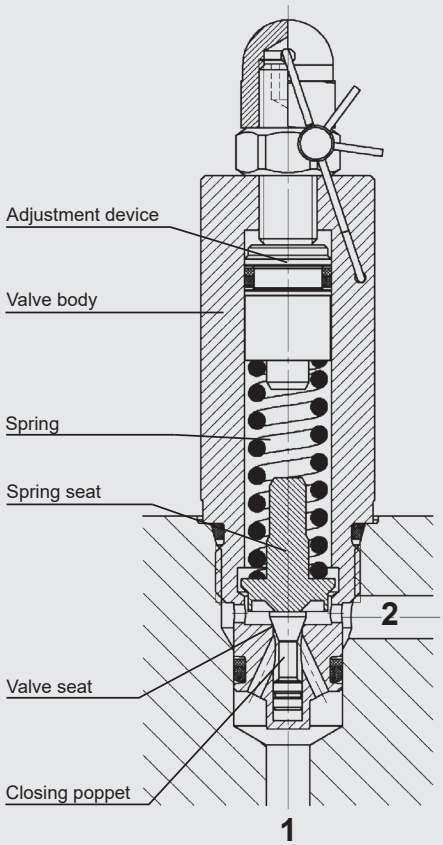
up to 28 l/min
up to 360 bar

Safety Valve
DB4E-CE

CE

Poppet Type, Direct-Acting
Screw-in Cartridge Valve, metric – 360 bar

FUNCTION



PRODUCT ADVANTAGES

- Low hysteresis and accurate pressure control
- Excellent stability throughout the entire flow range
- Various pressure ranges up to 360 bar
- External surfaces with advanced corrosion protection due to Zn-Ni coating (1,000 h salt spray test)

DESCRIPTION OF FUNCTION

The safety valve valve is rated on the basis of its opening characteristics in accordance with AD 2000 as a standard relief valve. The design corresponds to that of a direct-acting, spring-loaded relief valve.

With approval for the European market in acc. with PED 2014/68/EU and type approval test in acc. with VdTÜV

The compression spring exerts a force on the closing poppet and presses it on the valve seat. If the hydraulic pressure force is below the pre-set spring force, the valve is closed. Only if the hydraulic force exceeds the pre-set spring force does the valve open and flow is diverted to the tank via port 2. This continues until the pressure force drops below the spring force and the valve closes again.

Please make sure to observe the operating instructions in this regard, which are enclosed with the product on delivery.

The key points are stated below:

- No oil accumulation or pressure build-up permitted in the tank connection (port 2) (in acc. with DIN EN ISO 4126-1)
- If the terminal connections are incorrect, the safety function of the valve is disabled
- The pressure setting configured before delivery must not be altered
- Dismantling or modifying the valve is not permitted
- The system manufacturer's specifications must be adhered to when removing the valve from its installation space

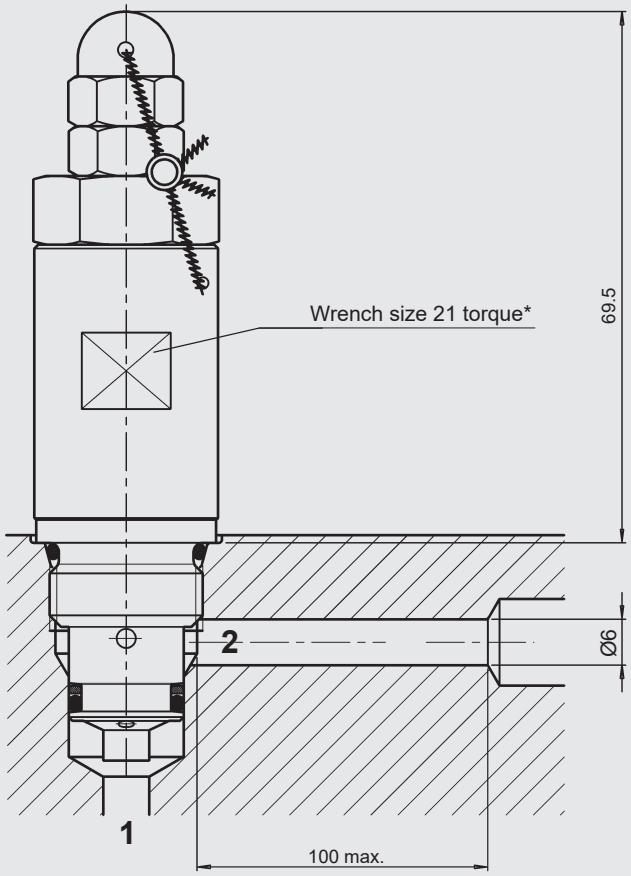
TECHNICAL DATA*

Operating pressure	Port 1: max. 360 bar Port 2: depressurised
Operating pressure range	80 to 360 bar
Flow rate	28 l/min (depending on pressure range – see table “Permitted flow rate”)
Temperature range of operating fluid	min. -20 °C to max. +80 °C
Ambient temperature range	min. -20 °C to max. +80 °C
Pressure fluid	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range	Min. 8 mm²/s to max. 350 mm²/s (see table “Permitted flow rate”)
Filtration:	Permitted operating fluid contamination level according to ISO 4406 Class 21/19/16 or better
Mounting position	No orientation restrictions
Materials	Valve body: Steel Piston: Hardened and ground steel Seal rings: FKM Support rings: PTFE
$MTTF_d$	Not applicable, assessment to PED already rated as Cat. IV
Cavity	06020
Weight	0.17 kg

PERMITTED FLOW RATE (at 350 mm²/s)

Range for cracking pressure [bar]	Max. flow rate [l/min]
80 - 89	20
90 - 100	13
101 - 110	20
111 - 115	12
116 - 140	15
141 - 160	18
161 - 180	22
181 - 200	24
201 - 210	28
211 - 240	18
241 - 260	20
261 - 340	11
341 - 360	16

DIMENSIONS

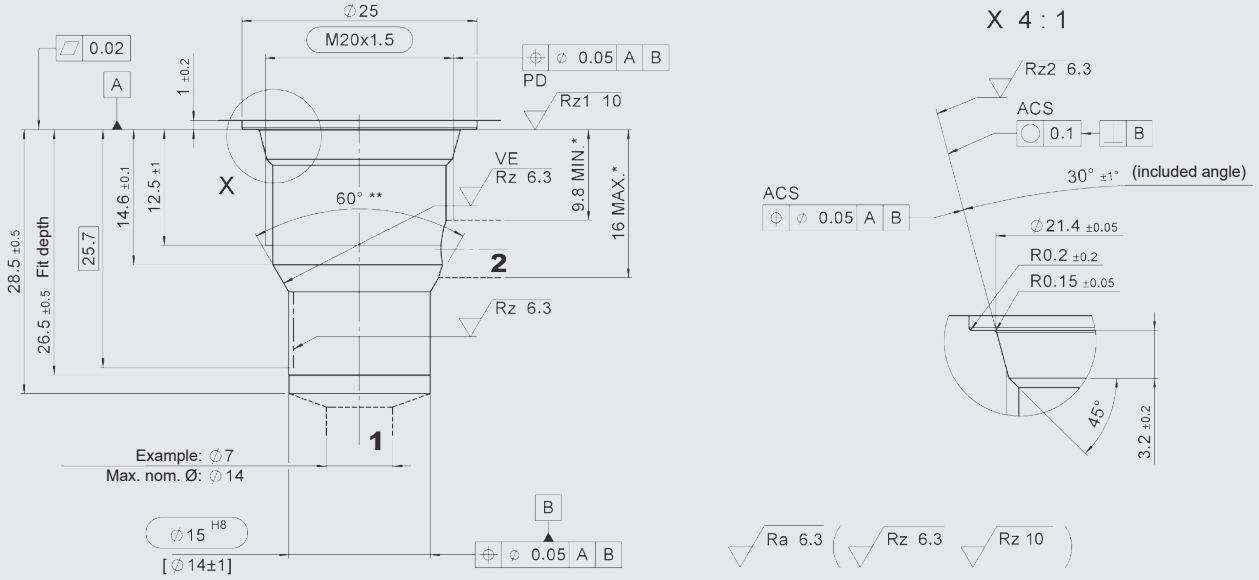


*Torque:
Steel housing (burst strength > 360 N/mm²): 35 Nm
Aluminium housing (burst strength > 330 N/mm²): 30 Nm
(With torque tool in acc. with DIN EN ISO 6789, tool type II, class A or B)
For more information see “Operating conditions and instructions for valves” in brochure 53.000

Millimetre
Subject to technical modifications

CAVITY

06020



VE = visual examination

* Permitted boring zone (for block design)

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

*** Largest pre-drilling diameter
(nominal tool diameter)

Millimetre
Subject to technical modifications

MODEL CODE

DB4E – 01 3 – CEXXXX.ENISO4126.4L. XXX. XXX

Designation
Relief valve

Design

Version number
Determined by manufacturer

Type approval code
XXX stands for the identification number of the notified body and CE to EN ISO 4126

Max. permitted flow rate
13 = 13 l/min
Rate depends on the pressure range (see table “Permitted flow rate”)

Cracking pressure
280 = 280 bar, cracking pressure, factory-set
(see table “Permitted flow rate”)

Notice: Cracking pressure setting available in 5 bar increments, e.g.: … 95; 100; 105; …

TYPE APPROVAL CODE (only valid for EU)

TÜV.SV.XX-733.4.F. XXX . XXX

Type approval code

Year of type approval test

Flow rate [l/min]

Cracking pressure [bar]

DOCUMENTATION

The following documents are enclosed with every valve:

- Operation instructions
- Declaration of conformity
- Conformity certificate

MATERIAL OVERVIEW

STANDARD MODELS

Designation	Part no.
DB4E-013-CEXXXX.ENISO4126.4L.11.280	3108520
DB4E-013-CEXXXX.ENISO4126.4L.11.315	3121141
DB4E-013-CEXXXX.ENISO4126.4L.13.100	3108508
DB4E-013-CEXXXX.ENISO4126.4L.15.140	3108511
DB4E-013-CEXXXX.ENISO4126.4L.16.350	3108568
DB4E-013-CEXXXX.ENISO4126.4L.18.160	3108513
DB4E-013-CEXXXX.ENISO4126.4L.20.250	3108519
DB4E-013-CEXXXX.ENISO4126.4L.24.200	3108517
DB4E-013-CEXXXX.ENISO4126.4L.28.210	3108518

Other versions on request.

SPARE PARTS, SEAL KITS

Description	Material	Part no.
Seal kit	FKM	3262477

ACCESSORIES, FORM TOOLS

Designation	Part no.
Countersink	170033
Reamer	1000768
Tap	1002648
Plug gauge	168840

INLINE CONNECTION HOUSINGS

Designation	Material	Ports	Pressure	Part no.
R06020-01X-01	Steel, zinc-plated	G 3/8"	360 bar	275266

NOTE

The information given in this brochure refers to the described operating conditions and applications. For applications and operating conditions not described, please contact the relevant technical departments.
Subject to technical modifications.
Documents are only valid if they have been obtained via the website and are up-to-date.

HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str.
66280 Sulzbach/Saar
Germany
Phone: +49 68 97 / 509-01
E-mail: valves@hydac.com
Internet: www.hydac.com