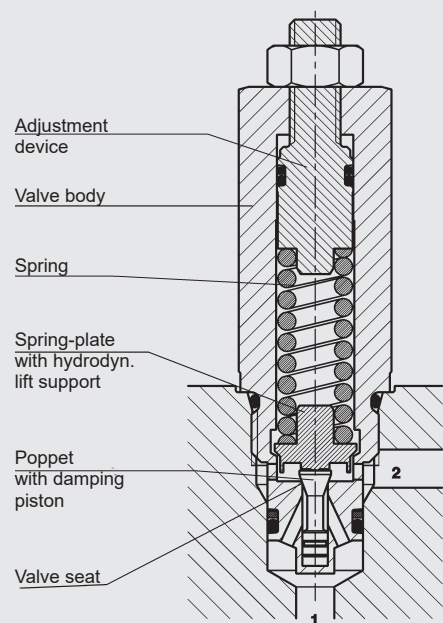


FUNCTION

Drawing without cap nut and seal



The pressure relief valve is a direct-acting, spring-loaded poppet valve with CE mark and TÜV SV approval. The spring exerts a force on the poppet and presses it on the valve seat. 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. This continues until the system pressure is equal to the spring tension and the valve closes again.

Caution: The valve DB4E-CE is classified as a safety valve according to PED and AD 2000. Always follow the operating instructions supplied with the valve. The key points are stated below:

- Tank pressure (port 2) must be $p_{2, \max} = 0$ bar
- If the connections are incorrect, the safety function of the valve is disabled
- The pressure setting must not be altered
- The valve must not be tampered with

Pressure Relief Valve poppet type, direct-acting Metric Cartridge – 360 bar DB4E-CE + TÜV type approved

FEATURES

- CE valve according to Pressure Equipment Directive (PED) 2014/68/EU
- TÜV type approved
- Excellent stability throughout flow range
- Low hysteresis and accurate pressure control
- Various pressure ranges up to 360 bar
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 360 bar max. 0 bar at port 2 (tank)
Nominal flow:	28 l/min (depending on pressure range - see chart "Permissible Flow Range")
Operating pressure ranges:	80 up to 115 bar 116 up to 210 bar 211 up to 260 bar 261 up to 360 bar
Leakage:	max. 5 drops/min (0,25 cm ³ /min) at 80% of setting pressure
Media operating temperature range:	min. -20 °C to max. +80 °C
Ambient temperature range:	min. -20 °C to max. +80 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range:	min. 8 mm ² /s to max. 350 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
Installation:	No orientation restrictions
Materials:	Valve body: steel Piston: hardened and ground steel Seals: FKM (standard) Back-up rings: PTFE
Cavity:	06020
Weight:	0.14 kg

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

MODEL CODE

DB4E - 013 - CExxxx.ENISO4126.4L. 13. 280

Basic model

Pressure relief valve
with CE mark

Series

(determined by manufacturer)

Type approval code

xxxx is the identification number of the notified body and CE to ENISO 4126.4L

Max. permitted flow rate

13 = 13 l/min

Rate depends on the pressure range
(see performance curves)

Opening pressure setting

280 = 280 bar, opening pressure in bar, factory-set
(see flow rate chart)

TYPE APPROVAL CODE

TÜV.SV.XX-733.4.F. XXX XXX

Type approval code

Year of type approval test

Flow rate [l/min]

Cracking pressure [bar]

Standard models

Model code	Part No.
DB4E-013-CExxxx.ENISO4126.4L.13.100	3108508
DB4E-013-CExxxx.ENISO4126.4L.15.140	3108511
DB4E-013-CExxxx.ENISO4126.4L.18.160	3108513
DB4E-013-CExxxx.ENISO4126.4L.24.200	3108517
DB4E-013-CExxxx.ENISO4126.4L.20.250	3108519
DB4E-013-CExxxx.ENISO4126.4L.16.350	3108568

Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
R06020-01X-01	275266	Steel, zinc-plated	G3/8"	360 bar

Other line bodies on request

Seal kits

Code	Part No.
SEAL KIT 06020-FKM	3262477

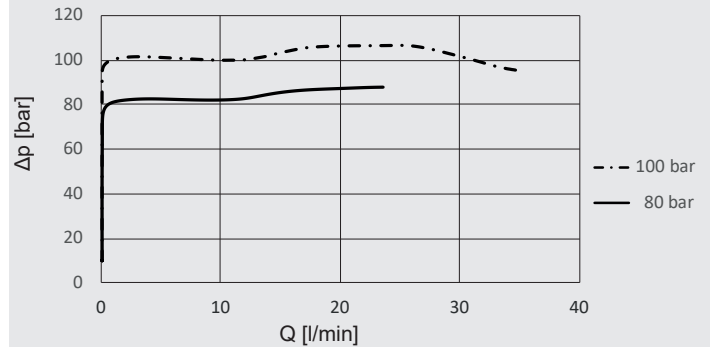
DOCUMENTATION

Each valve is supplied with operating manual, declaration of conformity and certificate of conformity.

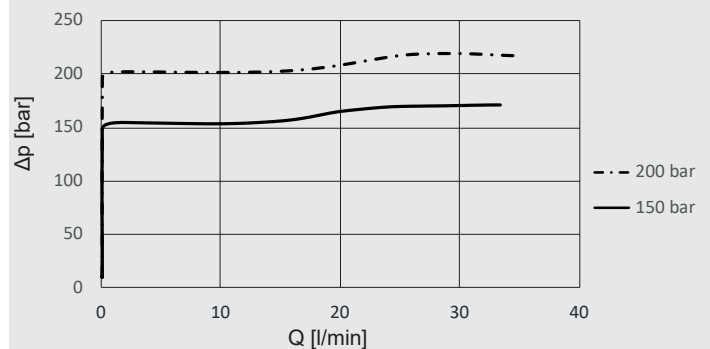
TYPICAL PERFORMANCE

Consider application limits in "Permissible flow rate range".

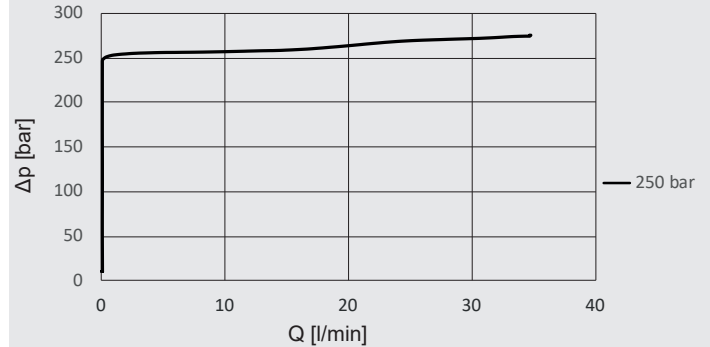
$\Delta p/Q$ -Performance, open for pressure ranges 80 up to 115 bar



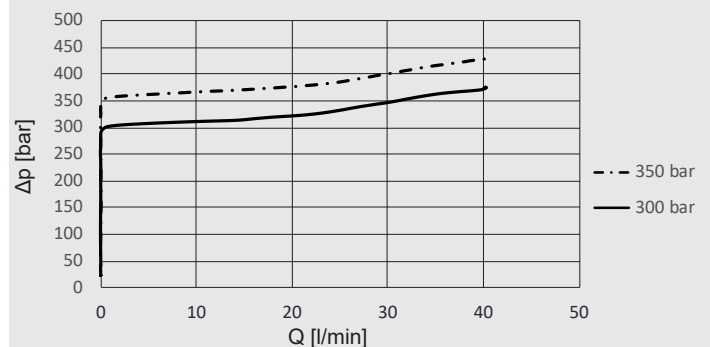
$\Delta p/Q$ -Performance, open for pressure ranges 116 up to 210 bar



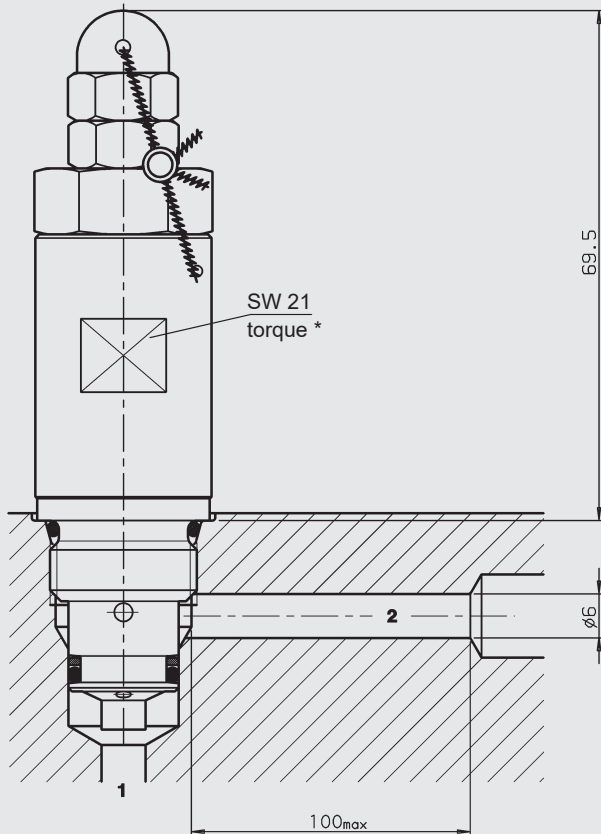
$\Delta p/Q$ -Performance, open for pressure ranges 211 up to 260 bar



$\Delta p/Q$ -Performance, open for pressure ranges 261 up to 360 bar



DIMENSIONS



*Torque:

Steel manifold
(ultimate tensile strength < 360 N/mm²): 35 Nm

Aluminium manifold
(ultimate tensile strength < 330 N/mm²): 30 Nm
(tool acc. to DIN EN ISO 6789,
tool type II class A or B)

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

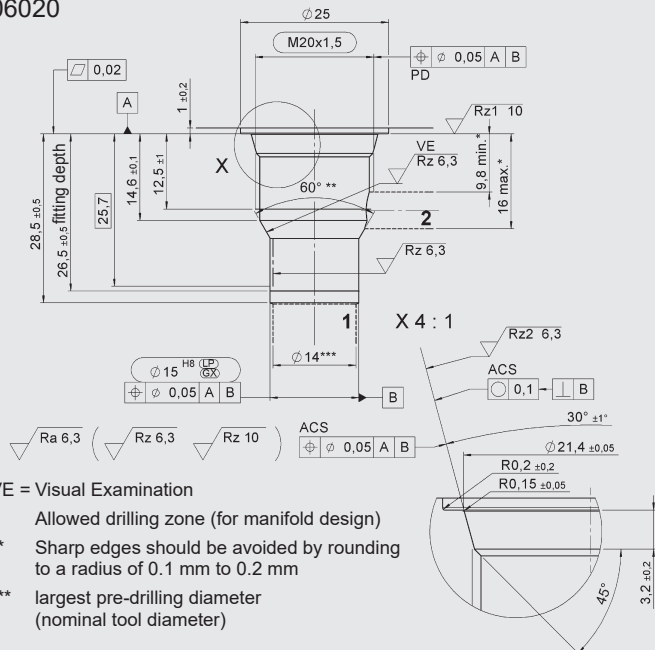
Millimeter
Subject to technical modifications

PERMISSIBLE FLOW RANGE

Cracking pressure [bar]	max. volume flow [l/min]
80 - 89	20
90 - 100	13
101 - 115	20
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

CAVITY

06020



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 tool diameter)

Form tools

Tool	Part No.
Countersink	170033
Reamer	1000768
Tap	1002648
Plug gauge	168840

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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