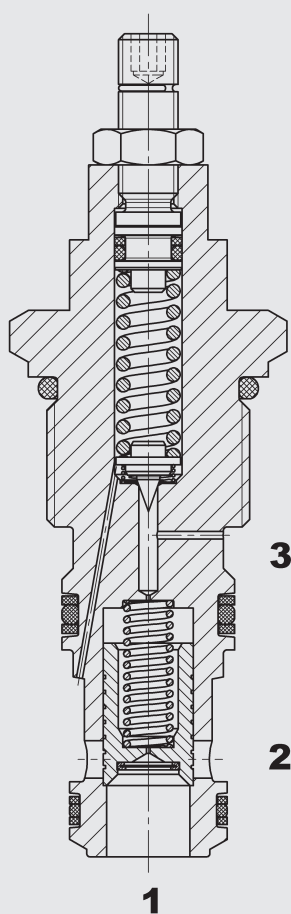


up to 200 l/min
up to 350 bar

FUNCTION



The pressure relief valve is a pilot operated, spool valve with a remote control option via port 3.

If the pressure at port 1 exceeds the pre-set value, the pilot-stage opens and oil flows from behind the main spool to the tank port 2. The resulting pressure differential allows the main spool to lift against the return spring and allows oil to flow from port 1 to port 2. Additionally the valve may switch the system to unpressurized circulation from port 1 to 2 by draining a pilot flow at port 3.

Pressure Relief Valve Spool Type, Pilot-Operated With Remote Control Option Metric Cartridge – 350 bar DBM12121PF-01

FEATURES

- Valve can be operated via its remote control line in combination with a directional valve
- Various pressure ranges up to 350 bar
- Quick response
- Increased operating reliability due to protective strainer
- Low hysteresis and excellent stability throughout the flow range
- Compact design enables space-saving installation in connection housings and control blocks
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 350 bar
Nominal flow:	max. 200 l/min
Operating pressure ranges:	up to 35 bar up to 60 bar up to 125 bar up to 230 bar up to 345 bar
Required remote control flow rate:	0.2 l/min to 0.6 l/min (depending on pressure and flow rate)
Internal leakage:	max. 320 ml at 350 bar
Media operating temperature range:	min. -30 °C to max. +100 °C
Ambient temperature range:	min. -30 °C to max. +100 °C
Operating fluid:	Hydraulic oil to DIN 51524 part 1, 2 and 3
Viscosity range:	min. 10 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
Material	Valve body: steel Spool: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE
Cavity:	12121
Weight:	0.26 kg

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

*Torque:
Steel manifold:
(tensile strength > 360 N/mm²): 105 Nm
Aluminium manifold:
(tensile strength > 330 N/mm²): 70 Nm
(With torque tool according to
DIN EN ISO 6789, tool type II class A or B)
For more information see "Conditions and
Instructions for Valves" in brochure 53.000

int. hex.
SW 4

SW 13

SW 32
torque 50⁺¹⁰ Nm

Ø9 through

40 thick

millimeter (inch)
subject to technical modifications

Technical drawing of a mechanical part with detailed dimensions and surface finish requirements.

Dimensions:

- Overall length: 64 ±0.5
- Top section length: 62.5 ±0.5 min. fitting depth
- Section 1 length: 51.2 ±0.1
- Section 2 length: 38.5 ±0.5 min. fitting depth
- Section 3 length: 26.7 ±0.1
- Section 4 length: 22.5 ±1
- Section 5 length: 21.3 min.*
- Section 6 length: 26.2 max.*
- Section 7 length: 37.3 min.*
- Section 8 length: 37.3 max.*
- Section 9 length: 50.7 max.*
- Section 10 length: 37.3 min.*
- Section 11 length: 26.2 max.*
- Section 12 length: 21.3 min.*
- Section 13 length: 37.3 min.*
- Section 14 length: 26.2 max.*
- Section 15 length: 21.3 min.*
- Section 16 length: 37.3 min.*
- Section 17 length: 26.2 max.*
- Section 18 length: 21.3 min.*
- Section 19 length: 37.3 min.*
- Section 20 length: 26.2 max.*
- Section 21 length: 21.3 min.*
- Section 22 length: 37.3 min.*
- Section 23 length: 26.2 max.*
- Section 24 length: 21.3 min.*
- Section 25 length: 37.3 min.*
- Section 26 length: 26.2 max.*
- Section 27 length: 21.3 min.*
- Section 28 length: 37.3 min.*
- Section 29 length: 26.2 max.*
- Section 30 length: 21.3 min.*
- Section 31 length: 37.3 min.*
- Section 32 length: 26.2 max.*
- Section 33 length: 21.3 min.*
- Section 34 length: 37.3 min.*
- Section 35 length: 26.2 max.*
- Section 36 length: 21.3 min.*
- Section 37 length: 37.3 min.*
- Section 38 length: 26.2 max.*
- Section 39 length: 21.3 min.*
- Section 40 length: 37.3 min.*
- Section 41 length: 26.2 max.*
- Section 42 length: 21.3 min.*
- Section 43 length: 37.3 min.*
- Section 44 length: 26.2 max.*
- Section 45 length: 21.3 min.*
- Section 46 length: 37.3 min.*
- Section 47 length: 26.2 max.*
- Section 48 length: 21.3 min.*
- Section 49 length: 37.3 min.*
- Section 50 length: 26.2 max.*
- Section 51 length: 21.3 min.*
- Section 52 length: 37.3 min.*
- Section 53 length: 26.2 max.*
- Section 54 length: 21.3 min.*
- Section 55 length: 37.3 min.*
- Section 56 length: 26.2 max.*
- Section 57 length: 21.3 min.*
- Section 58 length: 37.3 min.*
- Section 59 length: 26.2 max.*
- Section 60 length: 21.3 min.*
- Section 61 length: 37.3 min.*
- Section 62 length: 26.2 max.*
- Section 63 length: 21.3 min.*
- Section 64 length: 37.3 min.*
- Section 65 length: 26.2 max.*
- Section 66 length: 21.3 min.*
- Section 67 length: 37.3 min.*
- Section 68 length: 26.2 max.*
- Section 69 length: 21.3 min.*
- Section 70 length: 37.3 min.*
- Section 71 length: 26.2 max.*
- Section 72 length: 21.3 min.*
- Section 73 length: 37.3 min.*
- Section 74 length: 26.2 max.*
- Section 75 length: 21.3 min.*
- Section 76 length: 37.3 min.*
- Section 77 length: 26.2 max.*
- Section 78 length: 21.3 min.*
- Section 79 length: 37.3 min.*
- Section 80 length: 26.2 max.*
- Section 81 length: 21.3 min.*
- Section 82 length: 37.3 min.*
- Section 83 length: 26.2 max.*
- Section 84 length: 21.3 min.*
- Section 85 length: 37.3 min.*
- Section 86 length: 26.2 max.*
- Section 87 length: 21.3 min.*
- Section 88 length: 37.3 min.*
- Section 89 length: 26.2 max.*
- Section 90 length: 21.3 min.*
- Section 91 length: 37.3 min.*
- Section 92 length: 26.2 max.*
- Section 93 length: 21.3 min.*
- Section 94 length: 37.3 min.*
- Section 95 length: 26.2 max.*
- Section 96 length: 21.3 min.*
- Section 97 length: 37.3 min.*
- Section 98 length: 26.2 max.*
- Section 99 length: 21.3 min.*
- Section 100 length: 37.3 min.*

Surface Finish:

- Top surface: $Ra 6.3$ ($Rz 6.3$, $Rz 10$)
- Section 1: $Rz 6.3$
- Section 2: $Rz 6.3$
- Section 3: $Rz 6.3$
- Section 4: $Rz 6.3$
- Section 5: $Rz 6.3$
- Section 6: $Rz 6.3$
- Section 7: $Rz 6.3$
- Section 8: $Rz 6.3$
- Section 9: $Rz 6.3$
- Section 10: $Rz 6.3$
- Section 11: $Rz 6.3$
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- Section 91: $Rz 6.3$
- Section 92: $Rz 6.3$
- Section 93: $Rz 6.3$
- Section 94: $Rz 6.3$
- Section 95: $Rz 6.3$
- Section 96: $Rz 6.3$
- Section 97: $Rz 6.3$
- Section 98: $Rz 6.3$

Tool	Part No.
Countersink	177317
Reamer	175021