

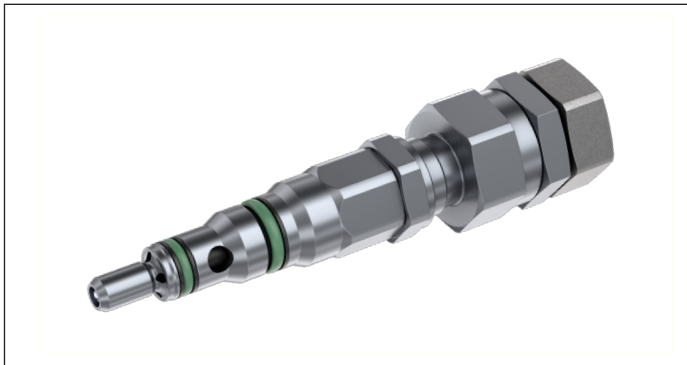
## Relief, direct acting guided poppet type with dual pressure stage Special cavity, M14x1

MHDBZ 04

**RE 18318-71**

Edition: 10.2024

Replaces: 04.2024

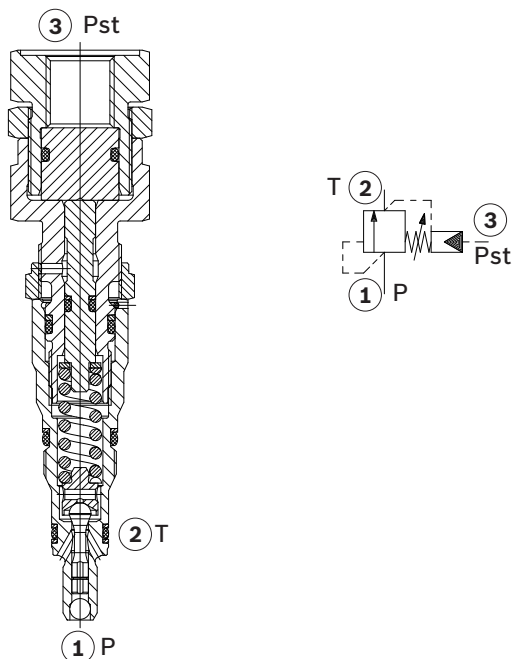


### Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through port 2 to tank. Pressure at port 2 is additive to the relief setting of the valve.

When connecting the external port 3 with pilot press. the pretension of the spring is increasing.

Pressurization at external port 3 has an effect on the main port at a given ratio.



### Technical data

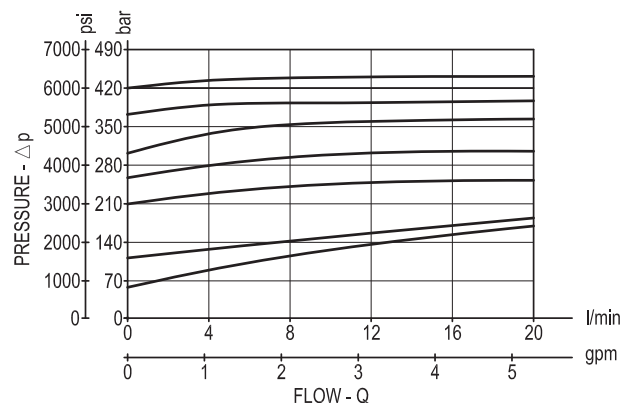
Max. operating pressure port 1 (P)	420 bar (6091 psi)
Max. pressure admitted port 2 (T)	50 bar (725 psi)
Max. flow	20 l/min (5,3 gpm)
Max. internal leakage <sup>1)</sup>	2 cc/min.
Pilot Ratio	See Ordering Code Section
Fluid temperature range	-20 to 80 °C (-68 to 176 °F)
Installation torque	23 - 28 Nm (17 - 21 ft-lbs)
Weight <sup>2)</sup>	0.32 kg (0.71 lbs)
MTTFD	150 years see RE 18350-51
Special cavity	R/DBD.4K
Seal kit FKM <sup>3)</sup>	Code: RG04R2070620100 R930094879
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 800 mm <sup>2</sup> /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 20/18/15
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

1) At 80% of pressure setting

2) Standard version 03 type

3) Only external seals for 10 valves

### Characteristic curve



Ordering code

MHDBZ 04

K

9

1X

420

XX

-

DA

XX

Pressure relief valve,  
direct operated

Screw-in cartridge valve

Adjustable via pressure cut-off stage

Component series 10 to 19 (10 to 19: unchanged  
installation and connection dimensions)

Pressure range  
0-420

...01 =  
...02 =  
...19 =

pst- connection  
G 1/4  
M 16 x 1,5  
G 9/16-18 UNF

Cavity  
M14x1

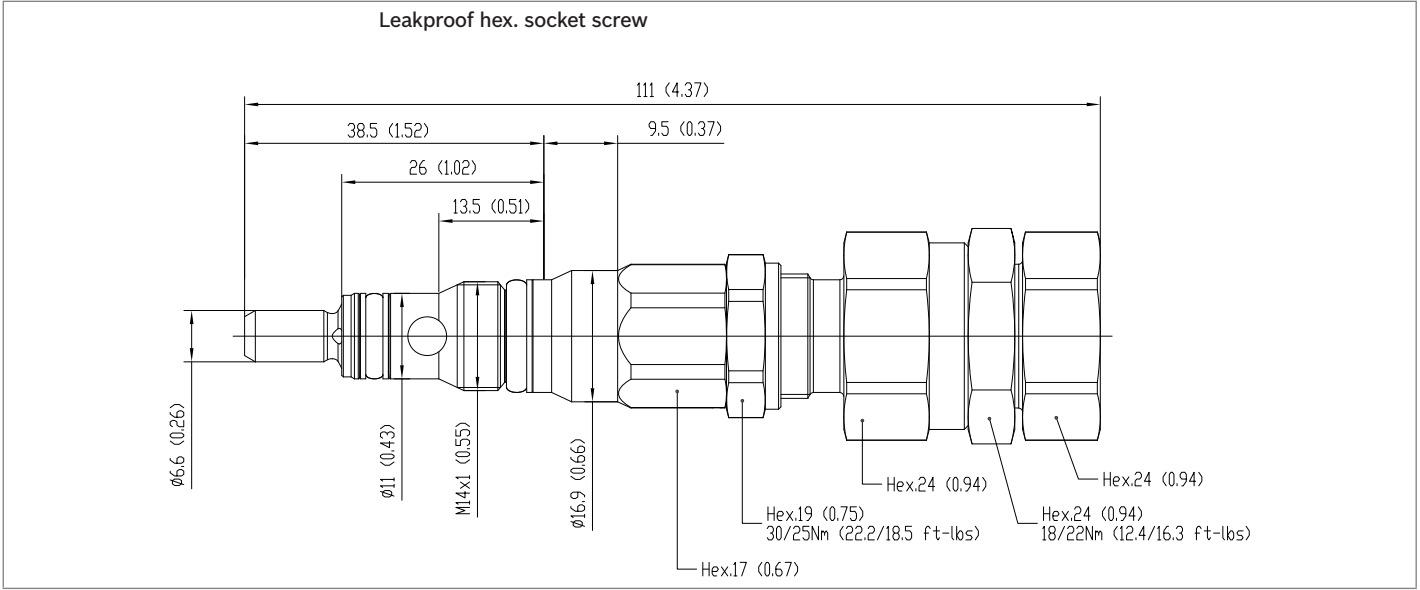
Sealing Material  
V = FKM  
M = NBR

Arithmetic gear ratio  
8 = 8:1  
10 = 10:1  
14 = 14:1  
16 = 16:1  
22 = 22:1

Type	Material number
MHDBZ 04 K9-1X/420/ 8VDA01	R900855315
MHDBZ 04 K9-1X/420/ 8VDA19	R900881836
MHDBZ 04 K9-1X/420/14VDA01	R901151067
MHDBZ 04 K9-1X/420/16VDA19	R900916290

Type	Material number
MHDBZ 04 K9-1X/420/22VDA01	R900560952
MHDBZ 04 K9-1X/420/22VDA02	R901089091
MHDBZ-04-K9-1X/420/10VDA01	R900876190

Dimensions



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