

## DC or AC valve solenoid

# 3

Product group

## X BR 017

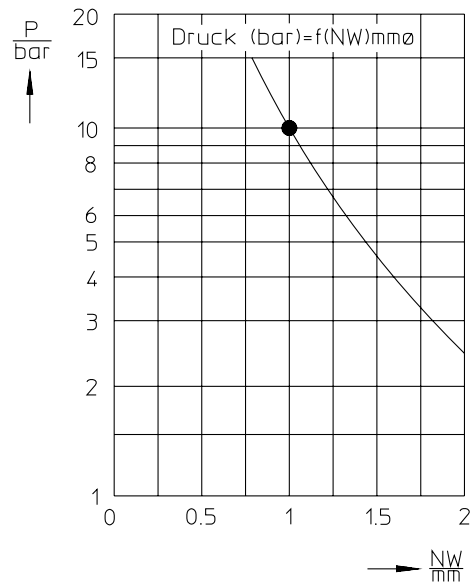
- According to DIN VDE 0580
- Armature space pressure tight up to 30 bar static pressure
- Armature with spring-supported sealing nipples at both ends
- Insulation materials of the excitation winding correspond to thermal class F
- Electrical connection and protection class when properly installed:
  - Plug connection by spade connectors according to DIN 46247  
Protection class according to DIN VDE 0470-1 / DIN EN 60529 – IP 00
  - Plug connection via plug connector according to DIN EN 175301-803 design CI 9,4 mm with flat gasket  
Protection class according to DIN VDE 0470-1 / DIN EN 60529 – IP 54
- Fastening via flange with 2 countersunk screws M 25  
Central thread on request
- Simple exchange of the solenoid body without opening the pneumatic circuit
- Sealing between solenoid and valve by o-ring
- Modifications and special designs and/or low watt versions on request
- Please take into consideration that the physically generated noise caused by AC solenoids may be disturbing in quiet rooms, particularly if mounted on a resonant base!
- Application examples:  
Actuation of 2/2 and 3/2-way-seat-valves, especially for pneumatics and other gasiform and fluid neutral media



Fig. 1: Type X BR X 017 K54 A01

## Technical data

<b>X BR X 017</b>			
Operating mode		S1	
Rated power $P_{20}$	DC	(W)	2.0
	AC	(VA)	3.7 / 2.5
Stroke $s$		(mm)	0.4
Reference temperature $\vartheta_{11}$		(°C)	50
Magnetic force $F_M$ (N)	DC	Stroke 0 m	14
		Stroke $s$ m	1.7
without spring	AC	Stroke 0 m	5
		Stroke $s$ m	1.75
Solenoid weight $m_M$		(kg)	0.043
Armature weight $m_A$		(kg)	0.005



**Fig. 2:** Fo 0804.1071  
Switchable pressure as function of the nominal width of the valve seat

Preferred voltage  $\equiv$  24 V, resp. 24 V / 50 Hz  
Higher voltages until  $\equiv$  160 V resp. 240 V / 50 - 60 Hz on request.

The force values indicated in the tables refer to 90% of the rated voltage without spring (UN =  $\equiv$  24 V resp. 24 V / 60 Hz, for other voltages deviations of the magnetic force may occur) and to the normal operating temperature. Due to natural dispersion the force values may deviate by  $\pm$  10% from the values indicated in the tables.

We recommend using compressed air corresponding to DIN ISO 8573/1, class 3. Elastomer neutral oils should be used for lubricating the compressed air, otherwise we ask you to please contact the manufacturer.

These data refer to the media compressed air and application as 3/2-way-valve de-energized closed. The nominal width for deaeration should be adapted accordingly to the nominal width of the valve.

The normal operation temperature is based on:


- Mounting on heat-insulating base
- Rated voltage  $\equiv$  24 V resp. 24 V / 50 Hz
- Operating mode S1
- Reference temperature 50° C.

The response time and the maximum operating frequency are not indicated, because they depend on the respective application case and on the pressure. According to the application the maximum operating frequency may be up to 36.000 S/h.

**Information and remarks concerning European directives** can be taken from the correspondent information sheet which is available under [Produktinfo.Magnet-Schultz.com](http://Produktinfo.Magnet-Schultz.com).

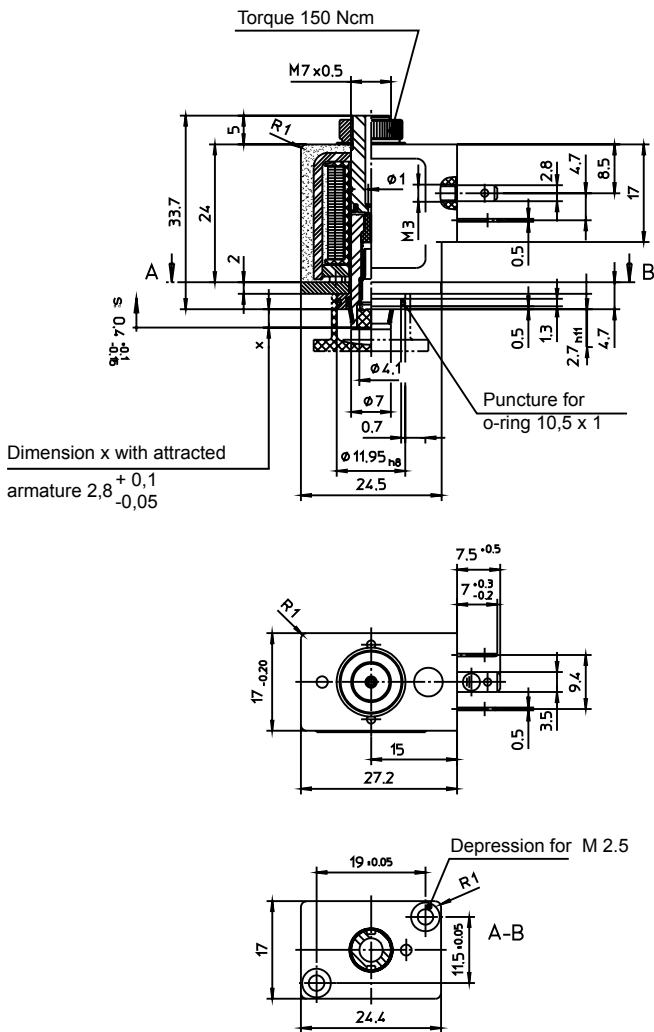
### Note on the RoHS Directive

According to our current state of knowledge the devices pictured in this document do not contain any substances in concentration values or applications for which putting into circulation with products manufactured from them is prohibited in accordance to RoHS.

**Please make sure that the described devices are suitable for your application. Supplementary information concerning its proper installation can be taken also from the -Technical Explanation, the effective DIN VDE0580 as well as the relevant specifications.**

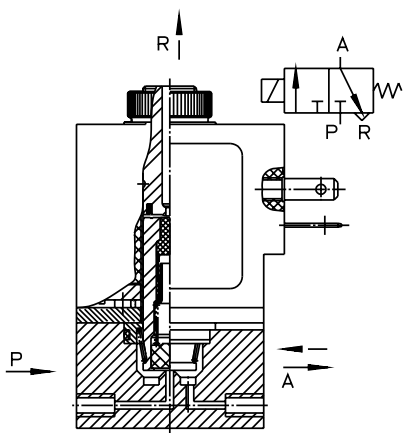
This part list is a document for technically qualified personnel.  
The present publication is for informational purposes only and shall not be construed as mandatory illustration of the products unless otherwise confirmed expressively.

## Dimension table

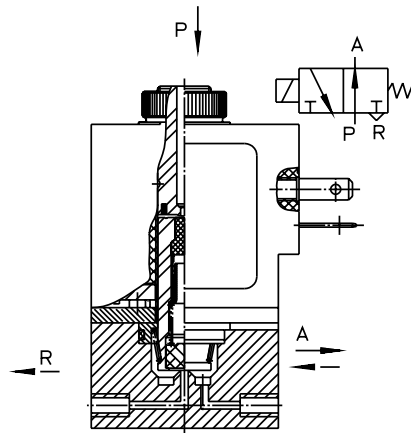


**Fig. 3:** Design with flange  
 X BR X 017 K54 A01  
 X BR X 017 K54 A02  
 X BR X 017 K54 A03 (without deaeration  $2.5 \pm 0.1$ )

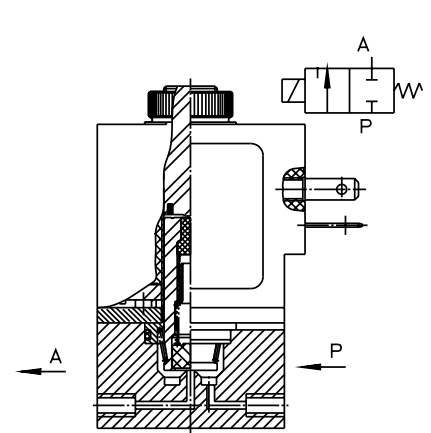
## Application example and switching function



**Fig. 4:** X BR X 017 K 54 A01  
 For 3/2-way valve, NC



**Fig. 5:** X BR X 017 K 54 A02  
 For 3/2-way valve, NO



**Fig. 6:** X BR X 017 K 54 A03  
 For 2/2-way valve

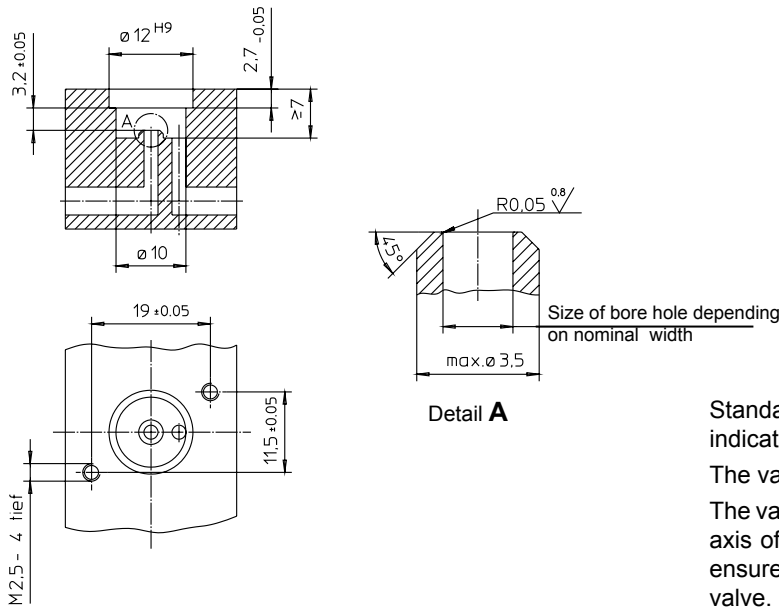


Fig. 7: Fo 0804.1093

Standard values for the valve construction corresponding to the indicated list values (stroke width and nominal width).

The valve construction should be made according to fig. 7.

The valve seat with largest possible rectangularity to the armature axis of the solenoid and a conical profile with a smooth surface ensure a maximum performance and life service of the solenoid valve.

## Type code


**X BR X 017 K 54 A01**

Device group	X
Series	BR X
Modifications	017
Size in the series	K
Execution in the series	54
Protection code	A01
Design number	

## Order example

DC	Type	X BR X 017 K54 A01
	Voltage	== 24 V DC
AC	Operating mode	S1 (100 %)
	Type	X BR X 017 K54 A01
	Voltage	24 V / 50 Hz
	Operating mode	S1 (100 %)

## Specials designs

Please do not hesitate to ask us for application-oriented problem solutions. In order to find rapidly a reliable solution we need complete details about your application conditions. The details should be specified as precisely as possible in accordance with the relevant  -Technical Explanations.

If necessary, please request the support of our corresponding technical office.