

DC valve solenoids for pneumatic application

3

Product group

X BK R 015

- According to DIN VDE 0580
- Armature space pressure tight up to 20 bar static pressure
- 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 with flat gasket
Protection class according to DIN VDE 0470-1 / DIN EN 60529 – IP 65
- Fastening with fastening pins
- Serial mounting possible
- Sealing between solenoid and valve by o-ring
- Please contact us for application related solutions
- Guided exhausted air on request
- 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 BK R 015 K54 A01

Technical data

	X BK R 015 K54 A01
Voltage U_N	24 VDC $\pm 10\%$
Operating mode	S1
Rated current I_{20}	84 mA
Switch-on current I_E	---
Holding current I_H	---
Actuation voltage U_{an}	$\geq 21.6\text{ V}$
Drop-out voltage U_{ab}	$\leq 0.7\text{ V}$
Rated Power P_{20}	2 W
Operating temperature	-10 °C ... +50 °C
Media	lubricated and nonlubricated, filtered air
Media temperature	-5 °C ... +80 °C
Ambient temperature	-15 °C ... +50 °C
Rated stroke	0.4 mm
Rated force	2.1 N

Rated voltage $\equiv 24\text{ V}$, the exciter coil can be adjusted to a rated voltage of maximum $\equiv 36\text{ V}$ on request.

Standard values for voltage and operating mode: 24 V DC or 24 V / 50 Hz, S1 (100%).

The force values indicated in the tables refer to 90% of the rated voltage without spring ($U_N = \equiv 24\text{ V}$, for other voltages deviations of 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.


The normal operation temperature is based on:

- Mounting on heat-insulating base
- Rated voltage $\equiv 24\text{ V}$
- Operating mode S1
- Reference temperature 50° C

These data refer to the media compressed air and application as 3/2-way-valve de-energized closed.

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.

Information and remarks concerning European directives can be taken from the correspondent information sheet which is available under *Produktinfo.Magnet-Schultz.com*.

Please make sure that the described devices are suitable for your application. Our offers for these devices are based on the assumption of maximal 8 in an FMEA severity table, i. e. in case of malfunction of the device model as offered, there is, amongst others, no jeopardy of life or limb. 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

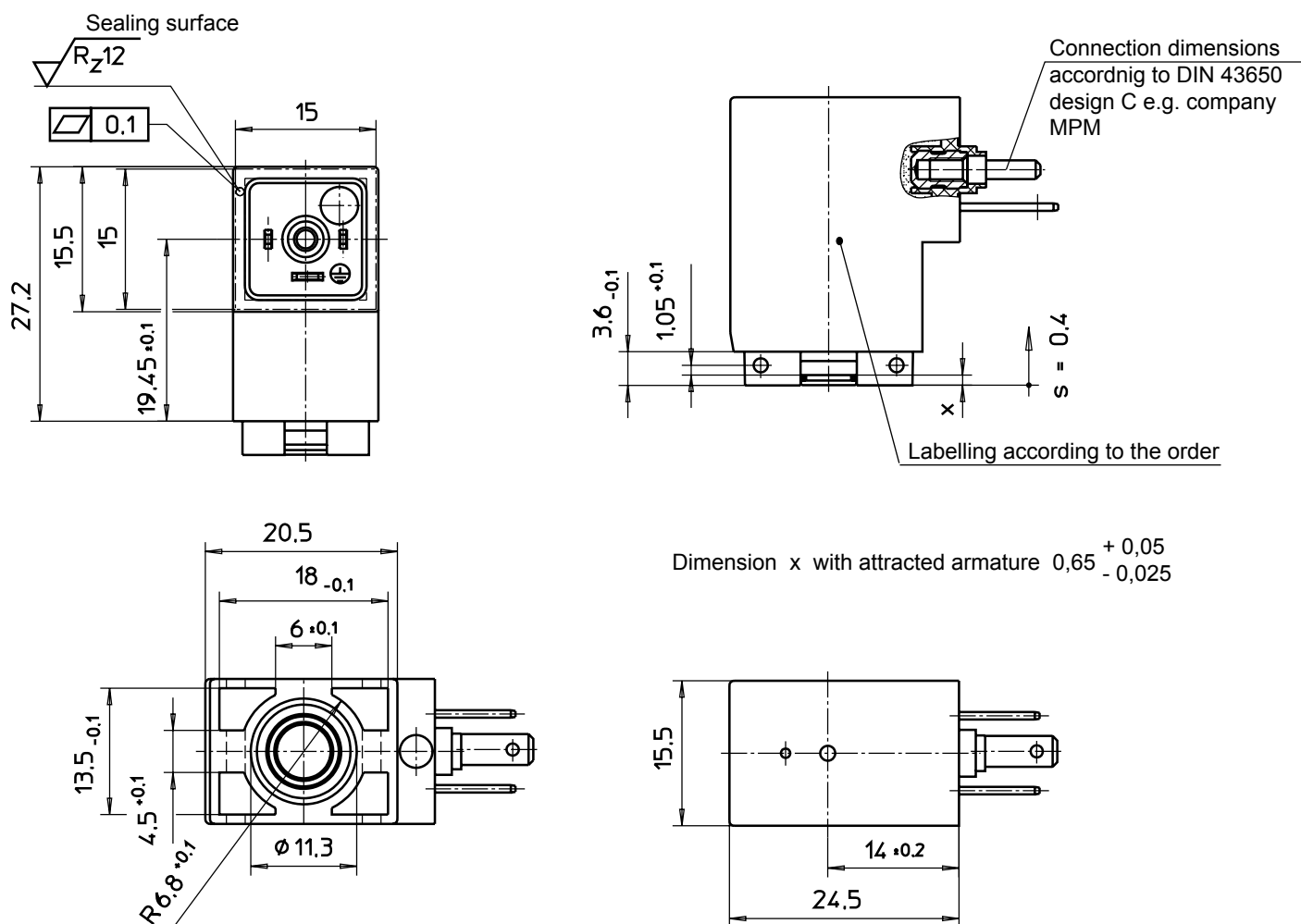


Fig. 2: Type X BK R 015 K54 A01

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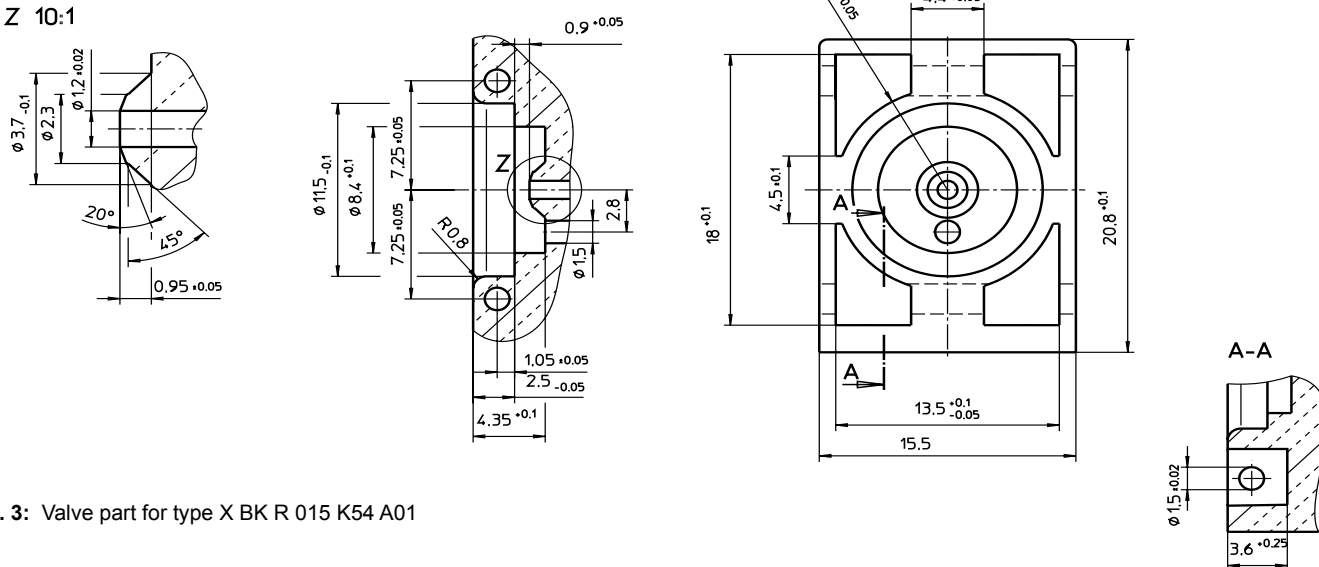


Fig. 3: Valve part for type X BK R 015 K54 A01

Application example

When being used with the bottom section of the valve, the following pneumatic data may be achieved:

X BK R 015 K54 V01	
Function	3/2 NC
Nominal width P	1.1 mm
Nominal width R	1.1 mm
Pressure range	0 - 10 bar
Response time	≤ 20 ms
Rated flow P → A (p=6 bar Δp = 1 bar)	27 l/min
Rated flow A → R (p=6 bar Δp = 1 bar)	28 l/min
Manual override	push type

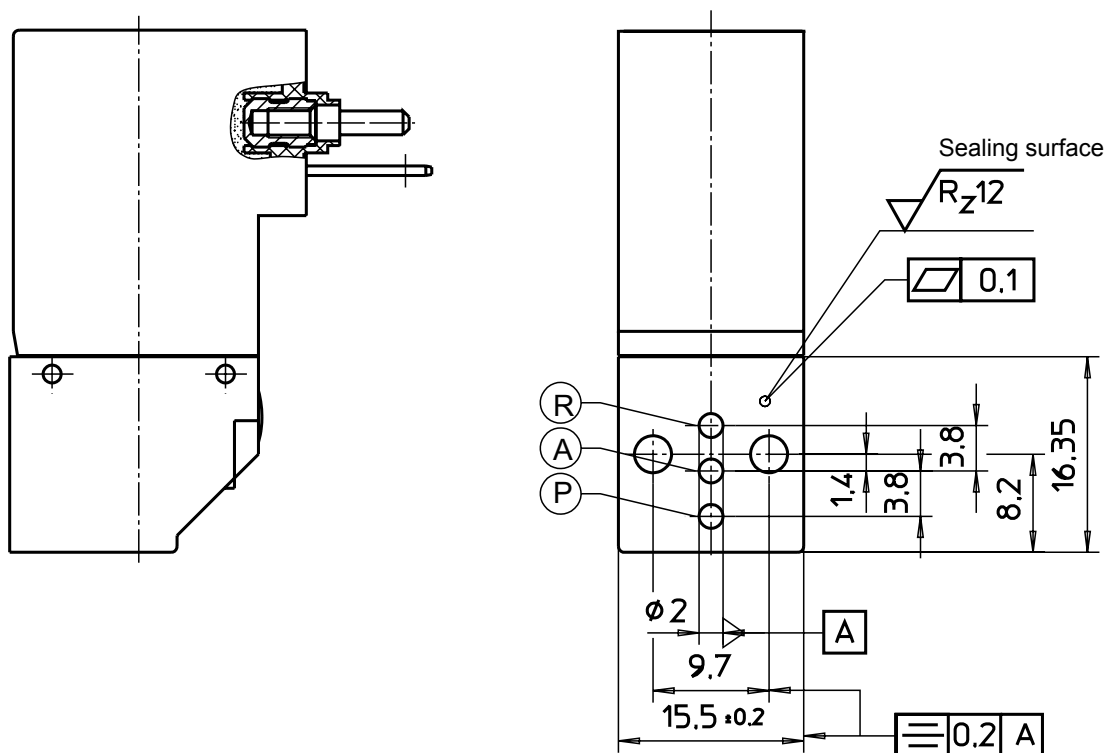



Fig. 3: Type X BK R 015 K 54 V01

Order example

Type X BK R 015 K54 A01
 Voltage \equiv 24 V DC
 Operating mode S1 (100 %)

Specials designs

Please do not hesitate to ask for our assistance with the solution of your application-oriented task. 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.