

D.C. Valve Solenoids for Pneumatics

3

Product group

G BK R 010

Pamphlet

- Designed to VDE 0580
- Armature space pressure-tight up to 20 bars static pressure
- Coil to insulation rating F
- Electrical connection and protection rating if mounted properly:
 - spade connectors
protection rating to DIN VDE 0470/EN 60529 - IP 00
 - spade connectors with miniature female plug,
snap-in device
protection rating to DIN VDE 0470/EN 60529 - IP65
- Mounting with fastening pins
- Serial mounting is possible
- Sealing between solenoid and valve through O-ring
- Modifications and special designs on request
- Exhaust port on request
- Application examples:

Actuation of 2/2 and 3/2 directional seat valves, particularly for pneumatics and for other gaseous media and neutral fluids.

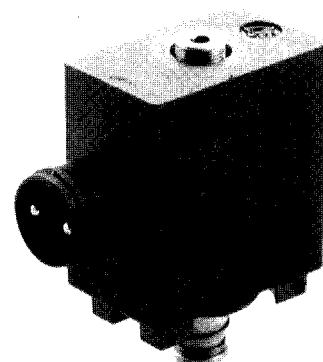


Fig. 1: G BK R 010 K00 A01



Technical data

G BK R 010 K00 A01	
Voltage U_N	24 VDC $\pm 10\%$
Operating mode	S1
Rated current I_{20}	40 mA
Drop current I_{ab}	≤ 2 mA
Draw-in voltage U_{an}	$\geq 21,6$ V
Drop voltage U_{ab}	$\leq 0,5$ V
Rated Power P_{20}	1 W
Operating temperature	$-10\text{ °C} \dots +50\text{ °C}$
Medium	lubricated and non-lubricated, filtered air
Temperature of medium	$-5\text{ °C} \dots +80\text{ °C}$
Ambient temperature	$-15\text{ °C} \dots +50\text{ °C}$
Rated solenoid stroke	0,25 mm
Rated magnetic force	0,6 N

We recommend to use compressed air to DIN ISO 8573/1, class 3. For lubricating the compressed air, elastomer-neutral oils have to be used, otherwise the manufacturer should be contacted.

Please find further details and definitions in our  -Technical Bulletin for pneumatic solenoids.

Rated voltage \equiv 24 VDC, on request the coil winding can be adjusted to a rated voltage of \equiv 36 VDC maximum.

The magnetic-force values mentioned in the tables refer to 90 % of the rated voltage, without spring ($U_N = \equiv$ 24 VDC, for other voltages the magnetic force may deviate) and in hot condition.

Owing to natural dispersion, the magnetic-force values may deviate by 10 % from the values indicated in the tables.

Hot condition is based on:

- mounting on heat-insulating base
- rated voltage \equiv 24 VDC
- operating mode S1
- reference temperature 50 °C

These data refer to the medium compressed air, and application as 3/2-port directional control valve, de-energized to lock.

Note on the technical harmonisation  guidelines within the EU

Electromagnetic solenoids of this product range are subject to the low-voltage guideline 73 / 23 EWG.

To guarantee the targets of this regulation, products are manufactured and inspected to the valid edition of DIN VDE 0580. This also equals a declaration of conformity by the manufacturer.

Note on the EMV (electromagnetic compatibility) guideline 89/336 EWG

Electromagnetic solenoids are not affected by this guideline because neither do they cause electromagnetic disturbances, nor can they be disturbed through electromagnetic disturbances. Therefore, the adherence to the EMV guideline has to be guaranteed by the user through appropriate circuitry wiring. Examples for protection circuits can be taken from the corresponding technical documents.

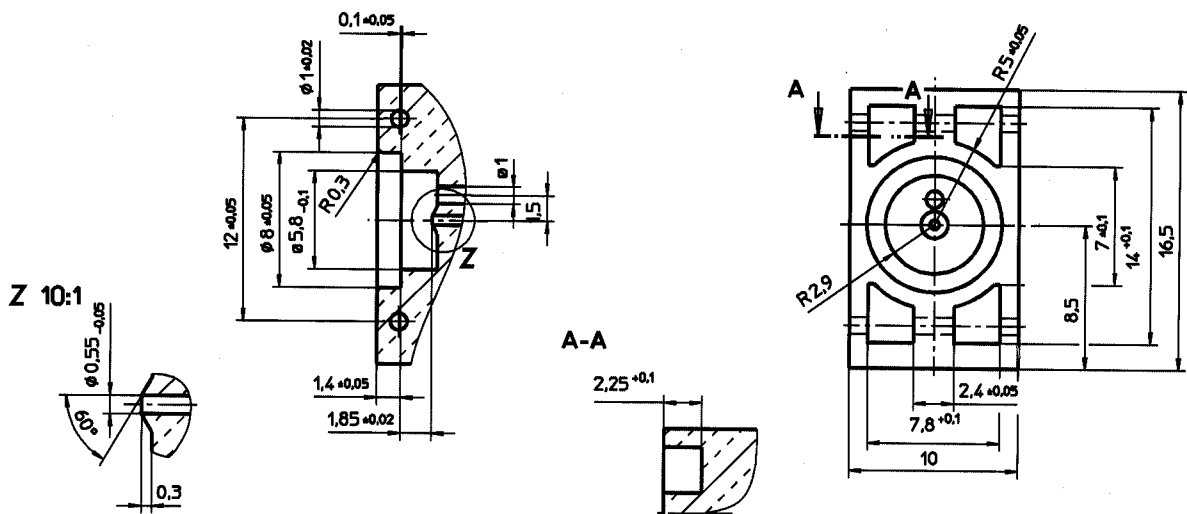
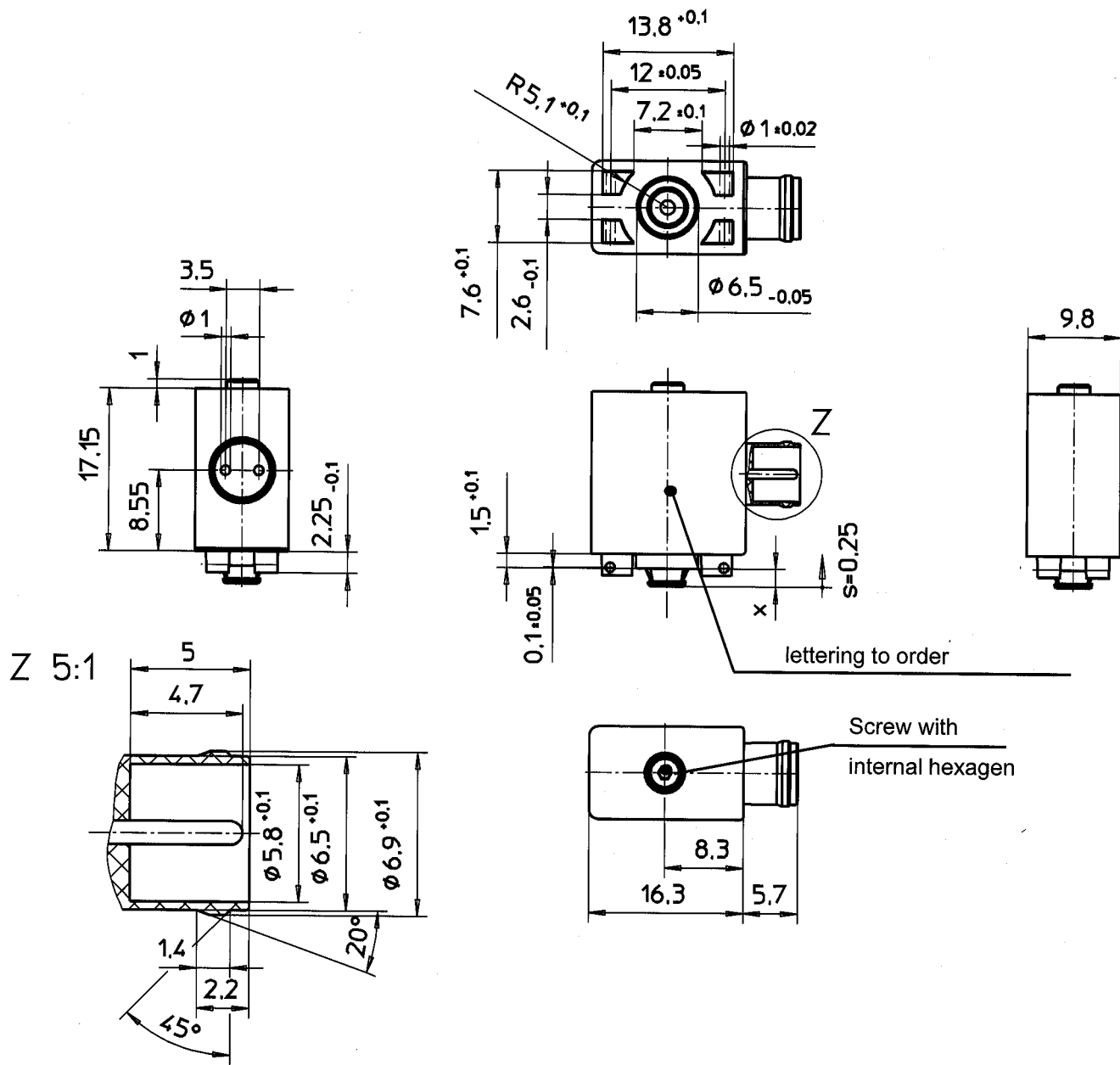


Fig. 2: Valve for G BK R 010 K00 A01

Dimensions sheet



lettering to order

Screw with
internal hexagen

Dimension x with drawn-in armature 1,55 ±0,1 adjustable

Fig. 3: Type G BK R 010 K00 A01

The solenoid shown is not a ready-to-use device in the sense of DIN VDE 0580. The general requirements and protective measures to be taken by the user, are included in DIN VDE 0580.



Application example

When being used with the valve part, the following pneumatic data can be achieved:

G BK R 010 K00 V10	
Function	3/2 NC
Nominal width P	0,6 mm
Nominal width R	0,6 mm
Pressure range	0 - 10 bar
Response time	≤ 6 ms
Rated flow P → A (p=6 bar Δp = 1 bar)	10 l/min
Rated flow A → R (p=6 bar Δp = 1 bar)	> 10 l/min
Manual override	push type

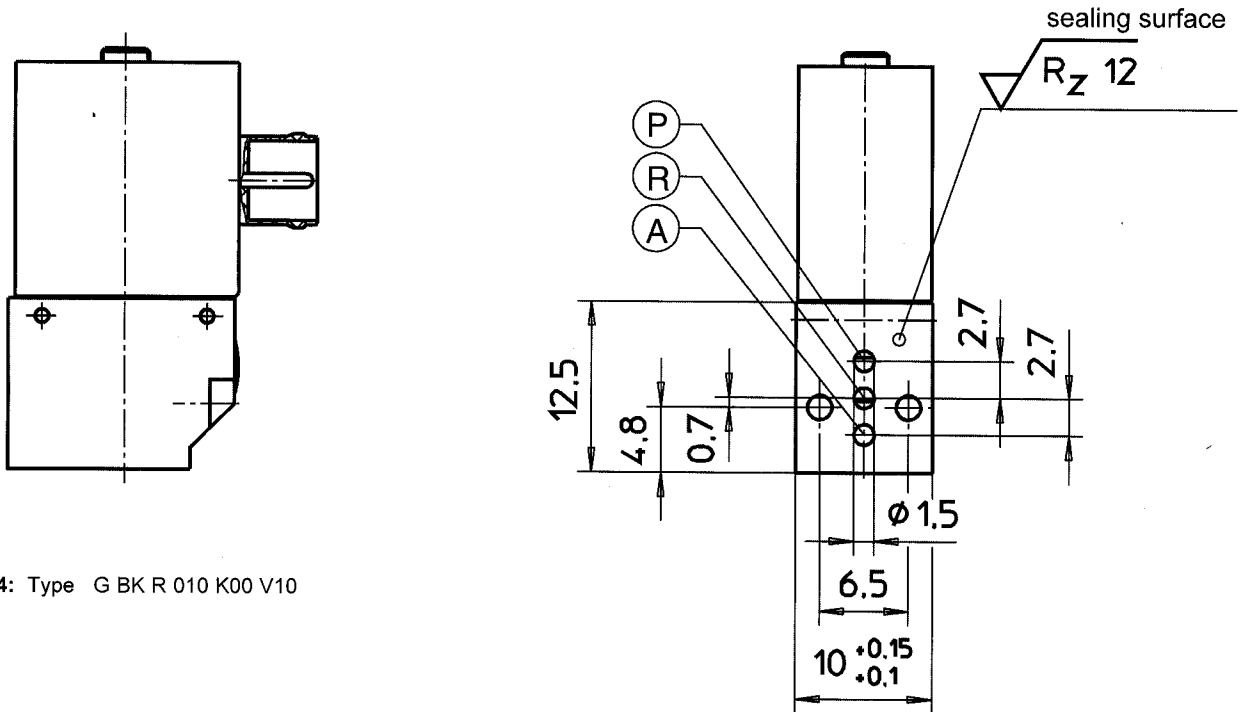


Fig. 4: Type G BK R 010 K00 V10

Order Example

Type G BK R 010 K00 A01
Voltage = 24 V DC
Operating mode S1

Specials

Special designs are available on request for which full application conditions should be specified in accordance with our  Technical bulletins.