

Polarized solenoid in small design

10

Product group

G BK P 017

- According to DIN VDE 0580
- Small dimensions
- Pull type
- Bistable function
Two stable, de-energized armature positions
- Higher holding force through integrated permanent solenoid
- Pulse operation, low heating, low energy consumption
- Short actuation time
- Long service life
- Exciter coil corresponds to insulation class B
- Electrical connection and protection class
with duly executed installation
 - Plug connection by spade connectors according to DIN 46247
Protection class according to DIN VDE 0470-1/
DIN EN 60529 – IP 00
 - Plug connection by plug connector according to
DIN EN 175301-803 design CI 9,4 mm with flat seal
Protection class according to DIN VDE 0470-1 /
DIN EN 60529 – IP65
- Fastening with tapped holes in the flat steel frame
- Please contact us for modifications and special designs
- Application examples:
Textile machinery, packing machines, office machines,
control technology, interlocking of all sorts



Fig. 1: Type G BK P 017 K00 A01



Technical data

G BK P 017 K00	A01	A02
Operating mode	S3 5 %	S3 5 %
Rated Voltage (V)	24	24
Drop-out voltage * (A)	0,3 ... 0,45	0,4 ... 0,6
Rated power P_{20} (W)	36,5	36,5
Rated stroke s (mm)	3	3
Magnetic force (N)	1,0	2,1
Permanent holding force (N)	3,0	2,0
Rated work A_N (Ncm)	0,39	0,63
Actuating time t_1 * (ms)	4,4	3,6
Armature weight m_A (kg)	0,004	0,004
Solenoid weight m_M (kg)	0,032	0,032

* Function of counter-load and pulse duration

Rated voltage \approx 24 V, an adjustment of the exciter coil to a rated voltage of \approx 60 V max. is possible on request.

The force values indicated in the diagram refer to the rated voltage ($U_N = \approx$ 24 V, for other voltages deviations of magnetic force may occur) and to the cold condition.

Due to natural dispersion the force values may deviate by \pm 10% from the values indicated in the tables.

The actuation times and the fall times are a function of counter-load and pulse duration. The values of actuation time indicated in the table have been determined at rated voltage, R_{20} with return spring.

The normal operating temperature is based on:

- Rated voltage \approx 24 VDC
- Operating mode S3 5%
- Reference temperature 35° C
- Mounting on heat-insulating base

The technical data were taken from sample solenoids, they are reference values. In the production deviations may occur due to natural dispersion.


Function

The solenoid type G BK P 017 K00 A01 has a bistable behaviour. In the starting position, in which the stroke has to be limited externally, the armature is held by a return spring.

In case of electrical pulse-like excitation the armature is moving into its final position. In this position the armature is held by the holding force of the permanent solenoid.

By the application of a counter-pulse, the armature may be returned into its initial position. The value of the counter-pulse depends on the counter-load and the pulse duration.

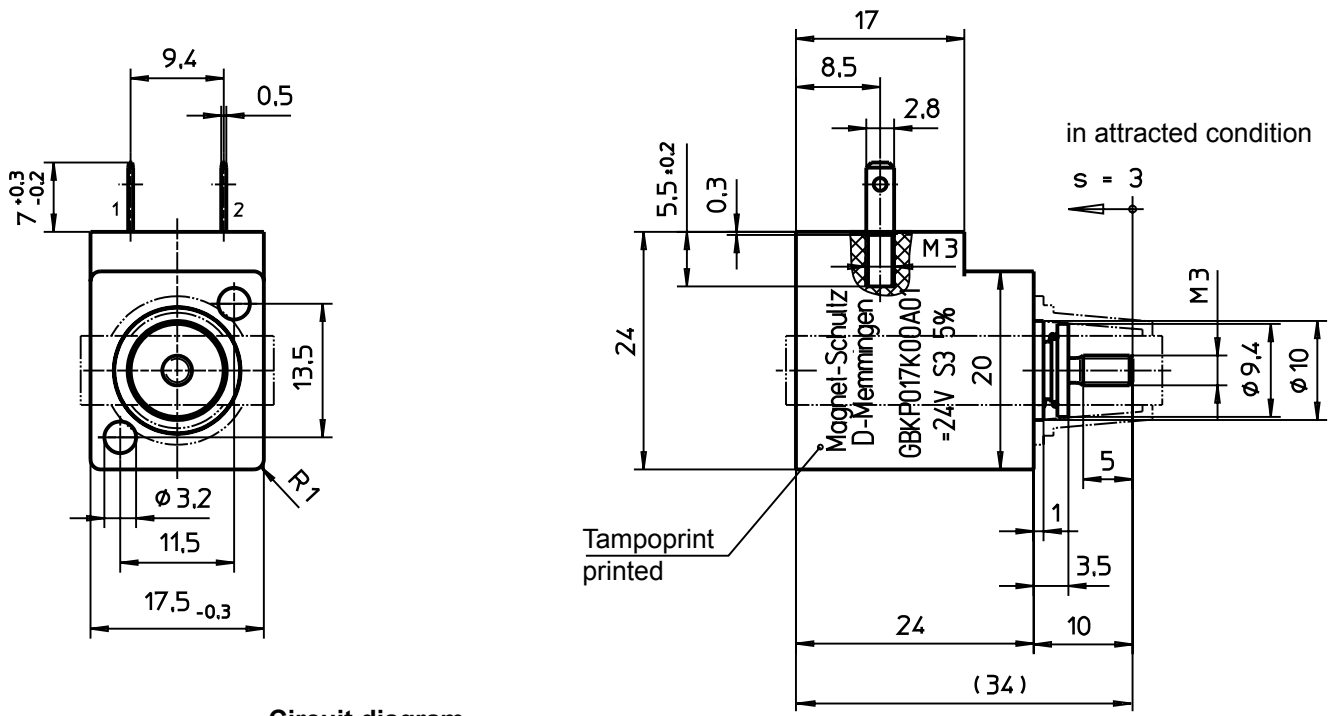
This part list is a document for technically qualified personnel. The present publication is for informational purposes only and shall not be construed as mandatory illustration of the products unless otherwise confirmed expressively.

Please make sure that the described devices are suitable for your application. Supplementary information concerning its duly assembly can be found also in  -Technical Explanations, in the effective DIN VDE0580 as well as in the relevant specifications.

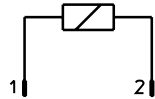
Information and remarks concerning European directives can be taken from the correspondent information sheet which is available under *Produktinfo.Magnet-Schultz.com*.

Note on the RoHS guideline 2002/95/ EC

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.



Circuit diagram



Attraction: Pin 1 (-), Pin 2 (+)
Drop: Pin 1 (+), Pin 2 (-)

Fig. 2: Type G BK P 017 K00 A01 / A02

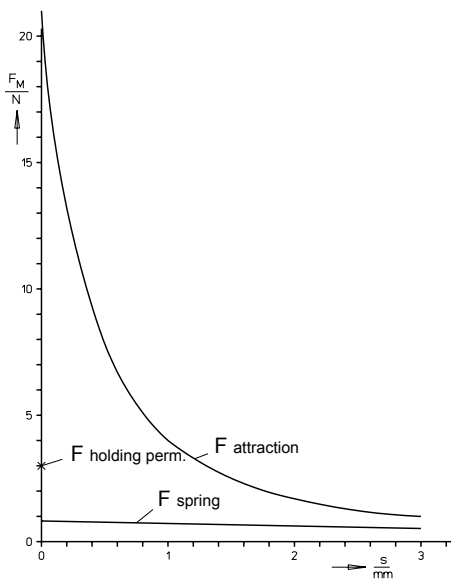


Fig. 3: force vs. stroke characteristic
G BK P 017 K00 A01

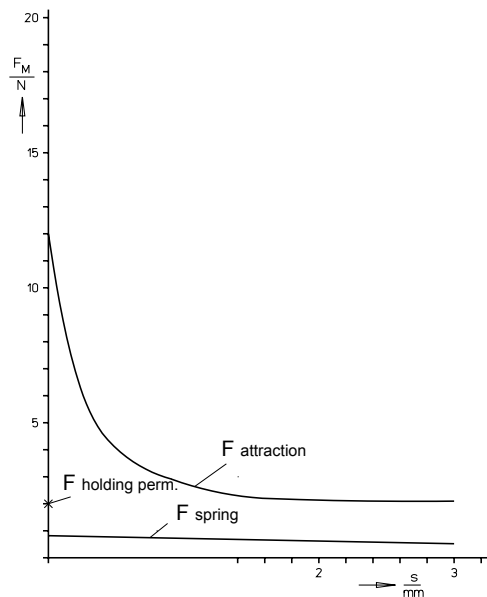
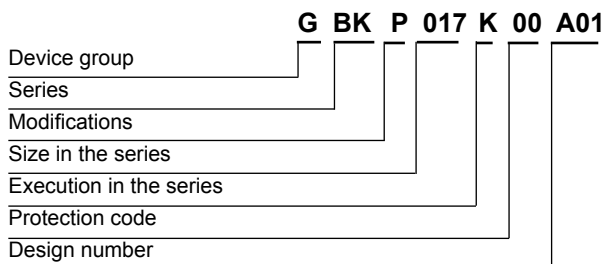


Fig. 4: force vs. stroke characteristic
G BK P 017 K00 A02




Type code



Order example

Type	G BK P 017 K00 A01
Voltage	== 24 V DC
Operating mode	S3 (5 %)

Special 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.