

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 attraction time
- Long life
- Insulation materials of the excitation winding correspond to thermal class B
- 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 seal
 - Protection class according to DIN VDE 0470-1/
DIN EN 60529 - IP 20
- Fastening with bore holes in the magnetic body
- Please contact us for application related solutions
- Application:
 - Textile and packaging machines, office machines, control technology, general locking applications



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

Notes on the tables

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

Due to natural dispersion the magnetic force values may deviate by approx. ± 10 % from the table values.

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, R20 with return spring.

The normal operating temperature is based on:

- Rated voltage = 24 V DC
- 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.

Rated voltage

Rated voltage is 24 V. An adaptation of the exciter coil to a rated voltage less than 60 V is possible on request.

The devices correspond to protection class III. Electrical equipment of protection class III may be only connected to low voltage systems (PELV, SELV)(IEC 60364-4-41).

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.

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

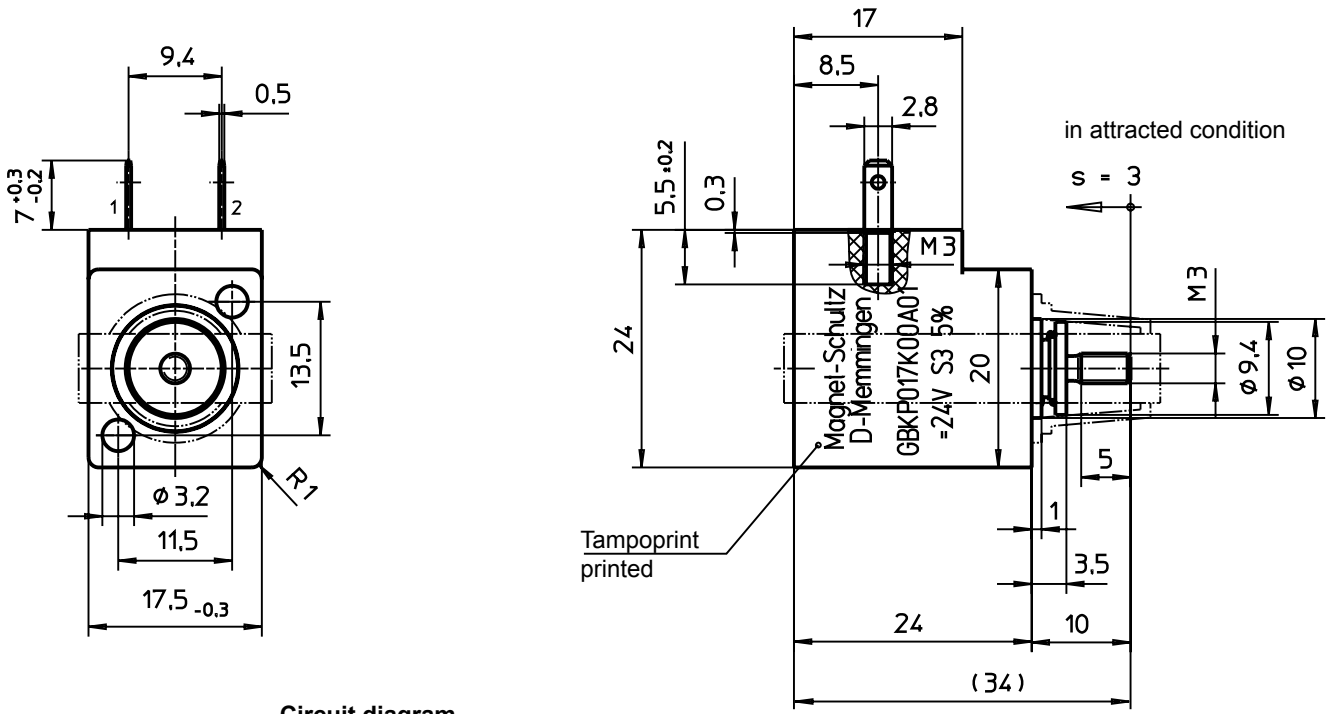
Note on the RoHS Directive

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.

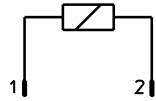
Please make sure that the described devices are suitable for your application. Supplementary information concerning its proper installation can be taken also from the  –Technical Explanation, the effective DIN VDE0580 as well as the relevant specifications.

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.



Circuit diagram



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

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

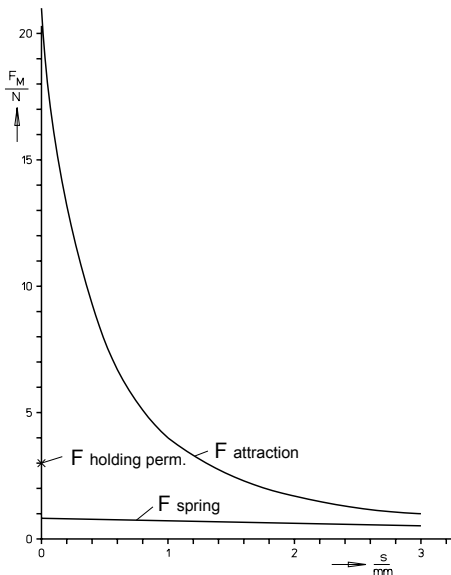


Fig. 3: force vs. stroke characteristic
G BK P 017 K00 A01

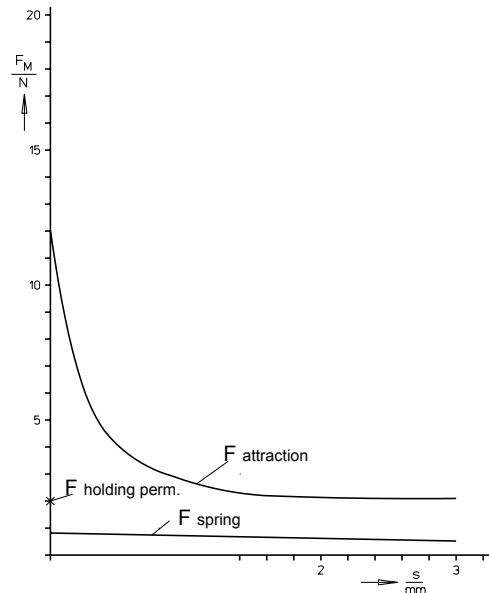
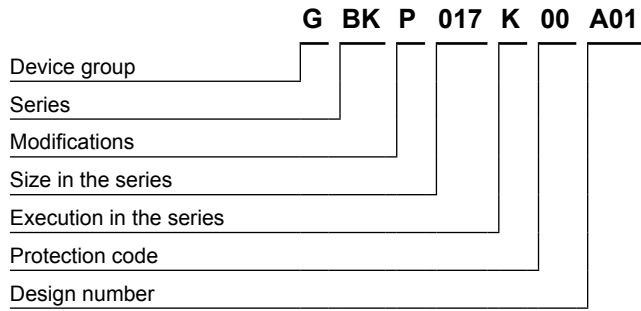


Fig. 4: force vs. stroke characteristic
G BK P 017 K00 A02


Type code



Order example

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

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.