DC single-acting solenoids

1

Product group

G TA

Function

- For strokes up to 5 mm
- Push and pull type
- Almost linear magnetic force vs. stroke characteristic

Construction

- Armature guided in maintenance free bearings
- Insulation materials of the excitation winding correspond to thermal class F
- Electrical connection via free flexible lead ends
- Protection class according to DIN VDE/DIN EN 60529 when properly installed: IP 20
- Mounting via central thread

Application examples

- Tooling machines, office machines, packing machines, textile machines
- Measuring and control technology, building of automats
- Coin operated machines

Options

- Please contact us for application related solutions

Standards

- Design and testing according to DIN VDE 0580
- Production according to ISO 9001

Fig. 1: Type G TA F 026 M20 A01

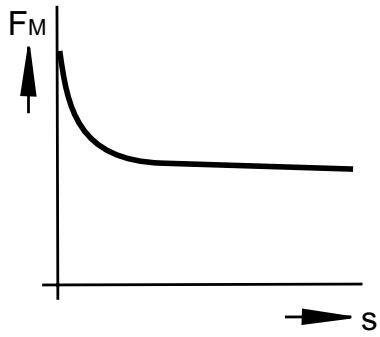

Fig. 2: Force vs. stroke characteristic

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Technical data

G TA F		020					026					032				
Operating mode		S1	S3	S3	S3	S3	S1	S3	S3	S3	S3	S1	S3	S3	S3	S3
rel. Einschaltdauer		100 %	40 %	25 %	15 %	5 %	100 %	40 %	25 %	15 %	5 %	100 %	40 %	25 %	15 %	5%
Stroke s	(mm)	3					4					5				
Holding force stroke 0 mm	(N)	5,3	6,6	8,3	11,3	16,5	9,8	15	19,6	23	35	15,5	26,5	35,8	49	72
Magnetic force F_M stroke s mm	(N)	1,7	2,2	2,7	3,7	5,4	2,4	4	5,9	7,2	12,3	3,9	6,9	9	12	17,7
Rated work A_N	(Ncm)	0,51	0,66	0,81	1,11	1,62	0,96	1,6	2,36	2,9	4,9	1,95	3,45	4,5	6	8,9
Rated power P_{20}	(W)	3,9	5,5	7,2	11,8	22,3	5,4	8,6	13,1	15,7	38	6,2	11,6	16,1	25,6	53
Operating frequency S_h	(1/h)	28.000	13.000	10.000	7.000	3.200	24.000	11.000	8.000	5.000	3.000	22.000	10.000	7.000	4.500	2.400
Actuation time t_1 [1]	(ms)	35	38	39	40	30	50	40	40	40	30	57	50	52	50	40
Fall time t_2 [2]	(ms)	30	28	25	25	25	36	30	30	30	30	40	35	33	33	33
Armature weight m_A	(kg)	0,012					0,02					0,03				
Solenoid weight m_M	(kg)	0,06					0,11					0,16				

[1] **Actuation time** t1 is the sum of response delay and stroke time.
[2] **Fall time** t2 is the sum of drop-out delay and return time.

Notes on the tables

The magnetic force values indicated in the table refer to 90 % of the rated voltage (U_N = ⎓ 24 V, deviations of the magnetic force may occur for other voltages) and the normal operating temperature.

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

The normal operating temperature is based on:

a) Mounting on heat-insulating base
b) Rated voltage ⎓ 24 V
c) Operating mode S1 - S3 5 % according to part list G XX, section 4
d) Reference temperature 35° C

Rated voltage

Rated voltage ⎓ 24 V, an adaptation of the exciter coil to a rated voltage of max. ⎓ 42 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 60364-4-4-41).

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.

Dimension drawing

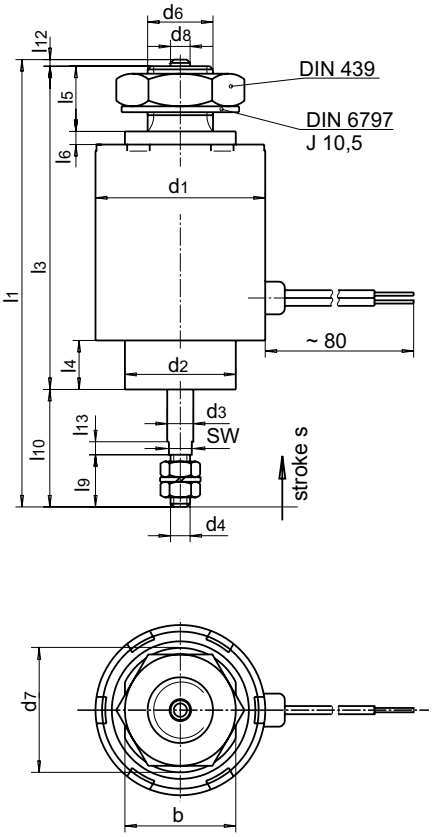

Fig. 3: Type G TA F 020 M20 A01 to
G TA F 032 M20 A01

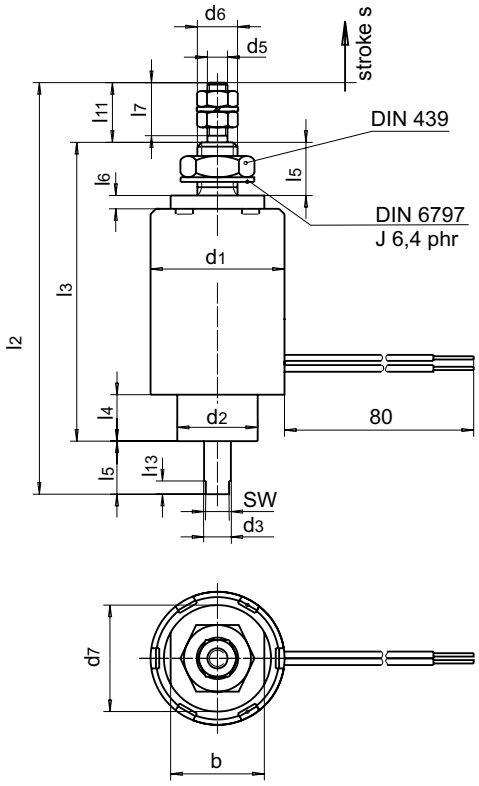

Fig. 3: Type G TA F 020 N20 A01 to
G TA F 032 N20 A01

G TA F	020	026	032
	sizes in mm		
b	14	17	17
Ø d_1	20	26	32
Ø d_2	12	17	18
Ø d_3	4	4	4
d_4	M3	M3	M3
d_5	M3	M3	M3
d_6	M6	M10	M10
Ø d_7	16	19	19
Ø d_8	3	3	3
l_1	67	68,5	75,5
l_2	62	68,5	74,5
l_3	45	49,5	50,5
l_4	7	7,5	7,5
l_5	8	10	10
l_6	2	2	2
l_7	8	8	10
l_8	8	10	8,5
l_9	8	8	10
l_{10}	20	18	24
l_{11}	9	9	15,5
l_{12}	2	1	1
l_{13}	2	2	2
s	3	4	5
SW	3,5	3,5	3,5

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Type code

Example	G TA F	020	M20 A01	Description
Type	G TA F			
Size		020		
		026		
		032		
Code for execution & protection class			M20 A01	pull-type
			N20 A01	push-type

Order example

Type G TA F 026 M20 A01
Voltage ⎓ 24 V DC
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.