

D. C. High Duty Solenoid

1

Product group

G TA

Pamphlet

For strokes up to 5 mm

- To VDE 0580
- Linear force characteristic
- Push und pull type
- Maintenance-free bearings
- Coil to insulation rating F
- Electrical connection and protection rating if mounted properly to VDE 0470/EN 60529 - IP 20
- Mounting with centre thread
- Modifications and special designs on request
- Application examples:
Machine tools, office machines, textile machinery, coin equipment, control technology



Fig. 1: Type G TA F 026 M20 A01

Magnetic force

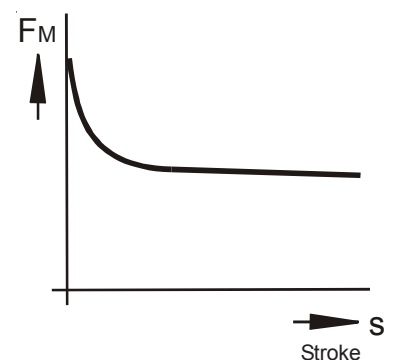


Fig. 2: Force characteristic



Technical data

G T A F	020					026				
	S1	S3 40%	S3 25%	S3 15%	S3 5%	S1	S3 40%	S3 25%	S3 15%	S3 5%
Operating mode										
Stroke s (mm)	3					4				
Holding force stroke 0 mm (N)	5,3	6,6	8,3	11,3	16,5	9,8	15	19,6	23	35
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
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
Rated power P_{20} (W)	3,9	5,5	7,2	11,8	22,3	5,4	8,6	13,1	15,7	38
Switching 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
Closing time t_1 1) (ms)	35	38	39	40	30	50	40	40	40	30
Opening time t_2 2) (ms)	30	28	25	25	25	36	30	30	30	30
Armature weight m_A (kg)	0,012					0,02				
Solenoid weight m_M (kg)	0,06					0,11				

G T A F	032				
	S1	S3 40%	S3 25%	S3 15%	S3 5%
Operating mode					
Stroke s (mm)	5				
Holding force stroke 0 mm (N)	15,5	26,5	35,8	49	72
Magnetic force F_M stroke s mm (N)	3,9	6,9	9	12	17,7
Rated work A_N (Ncm)	1,95	3,45	4,5	6	8,9
Rated power P_{20} (W)	6,2	11,6	16,1	25,6	53
Switching frequency S_h ($1/h$)	22.000	10.000	7.000	4.500	2.400
Closing time t_1 1) (ms)	57	50	52	50	40
Opening time t_2 2) (ms)	40	35	33	33	33
Armature weight m_A (kg)	0,03				
Solenoid weight m_M (kg)	0,16				

- 1) **Closing time** t_1 is the total of response delay and stroking time.
- 2) **Opening time** t_2 is the total of retraction delay and return time.

Rated voltage \approx 24 VDC, on request the coil winding can be adjusted to a rated voltage of \approx 42 VDC maximum.

The force values mentioned in the tables refer to 90 % of the rated voltage, ($U_N = \approx$ 24 VDC, for other voltages the force may differ) and hot condition.

Owing to natural dispersion, the 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 \approx 24 VDC
- operating mode S1 - S3 5% (according to pamphlet GXX, 4.)
- reference temperature 35° C

Please find further details and definitions in our -Technical Explanation or, in VDE 0580 respectively.

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 EMC (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 EMC guideline has to be guaranteed by the user through appropriate circuitry wiring. Examples for protection circuits can be taken from the corresponding technical documents.

Dimensions sheet

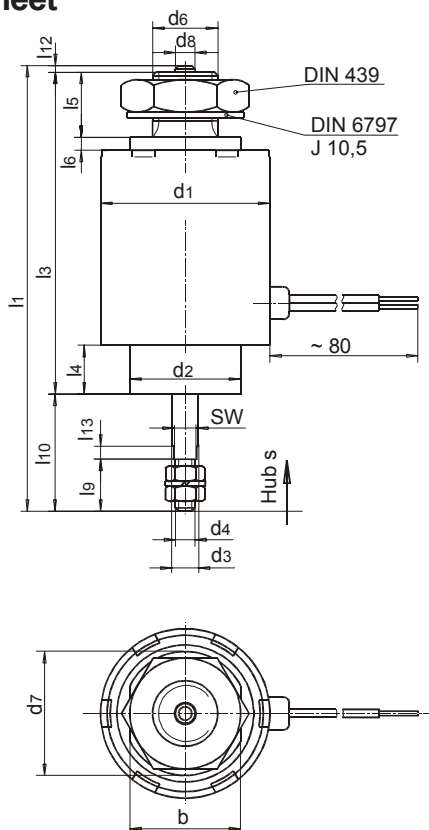


Fig. 3: Type G T A F 020 M20 A01 to
G T A F 032 M20 A01

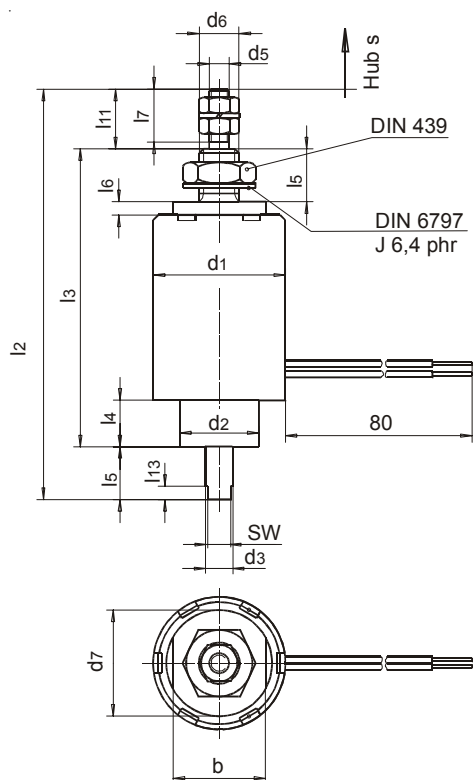


Fig. 3: Type G T A F 020 N20 A01 to
G T A F 032 N20 A01

G T A 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

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.



Type code

	G	TA	F	026	M 20	A01
Equipment group						
Basic construction						
Standard design						
Size						
Arrangement (M: push type N: pull type)						
Basic protection						
Design number						

Order Example

Type	G TA F 026 M20 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 Explanations.