Proportional Control Solenoids for Hydraulics

4

Product group

G AA X 045

- To VDE 0580
- Armature space pressure-tight up to 350 bar static pressure
- Increasing magnetic force vs stroke graph
- Push type
- Very small overall height
- Armature guided in pressure-tight armature tube
- Coil insulation rating F
- Electrical connection and protection if mounted properly:
  - Connection with sockets to DIN 46 247
    Protection to DIN VDE 0470/EN 60 529 – IP00
  - Connection with plug connector Z KB to DIN 43 650
    Screwed cable glands (4 x 90° positions)
    Protection to DIN VDE 0470/EN 60 529 – IP 65 (P54)
- Mounting with 4 screws
- Manual override
- Sealing between solenoid and valve through O-ring
- Modifications and special designs on request
- Application examples:
  Actuation of hydraulic valves and special valves

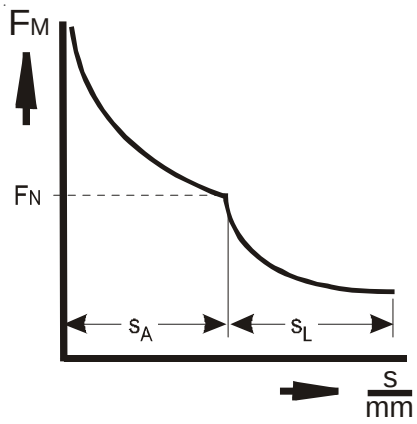


Fig. 1: Magnetic force cs stroke graph

sales@magnetschultz.co.uk
Phone: ++44 (0) 1483 794700

Technical data

G AA X	045	
Operating mode		S1
Stroke s	(mm)	Magnetic force F_M (N)
	0	170
	1	68
	2	53
	2,5	52
	3	41
	4	23
	5	13
	5,5	11
Work rating W_N 1)	(Ncm)	13
Rated power P_{20}	(W)	32,5
Frequency of operating S_h max.	(1/h)	3600
Closing time t_1	(ms)	62
Opening time t_2	(ms)	48
Armature weight m_A	(kg)	0,08
Solenoid weight m_M	(kg)	0,90

Table values (times)

The time values mentioned in the tables refer to rated voltage, maximum stroke, strain through weight, 70% of the rated magnetic force. The may decrease considerably in case of hydraulic strain (slide against spring).

Table values (magnetic force)

The force values mentioned in the tables refer to 90 % of the rated voltage 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:

a) mounting on hydraulic slide filled with oil, minimum dimensions 46 x 46 x 66 mm and base plate 46 x 66 x 30 mm

b) rated voltage ⎓ 24 VDC

c) operating mode S1

d) reference temperature 50° C

In case of deviations from the given application conditions, a winding reduction becomes necessary. For other slide dimensions and reference temperatures, the magnetic force can be adjusted through modification of the exciting winding.

1) Work at working stroke s_A = 2.5 mm

Please make sure that the described devices are suitable for your application. Please find further details and definitions in our Technical Explanation or, respectively, in VDE 0580.

Note on the technical harmonisation guidelines within the EU CE

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.

sales@magnetschultz.co.uk
Phone: ++44 (0) 1483 794700

Dimensions sheet

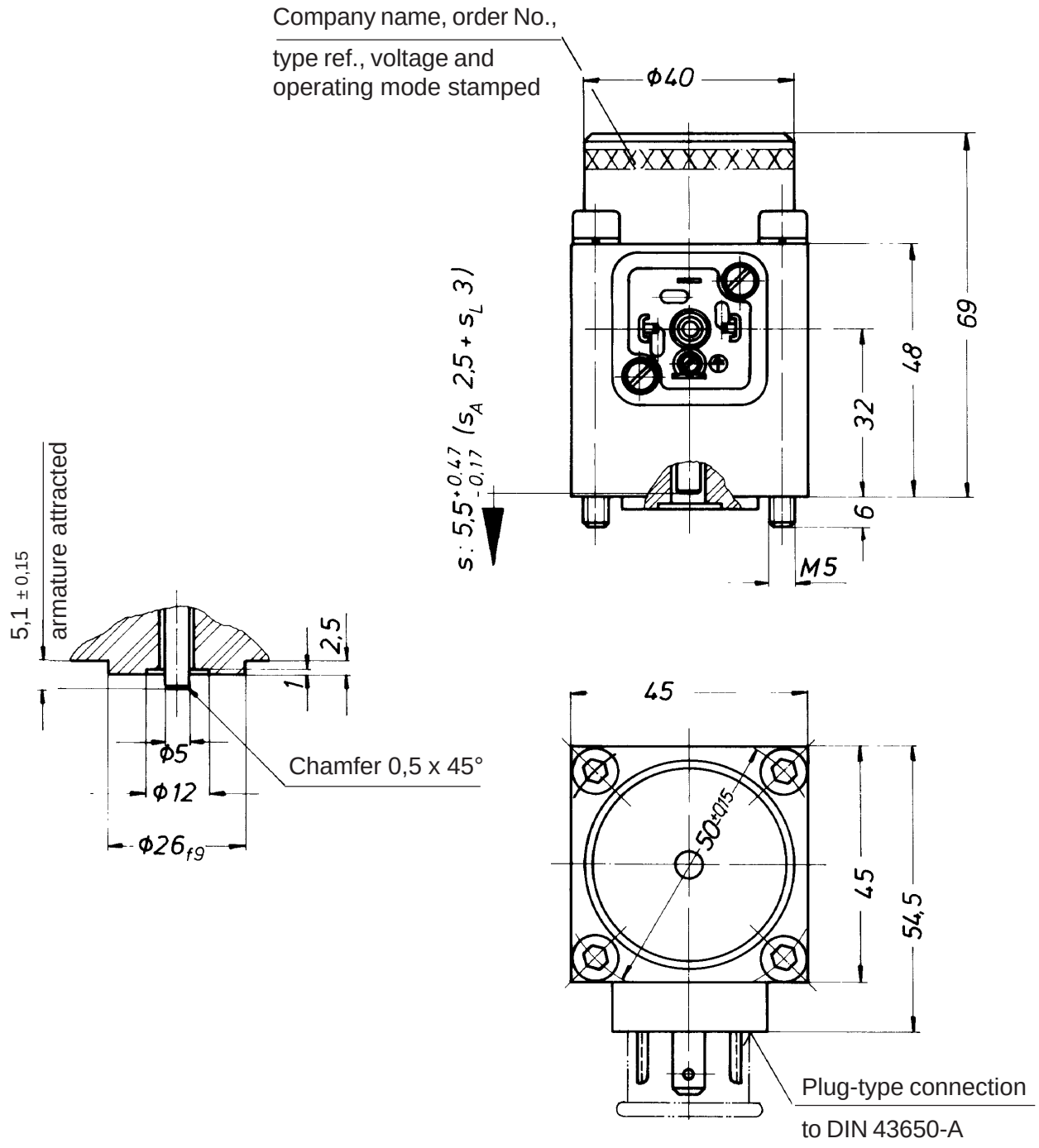
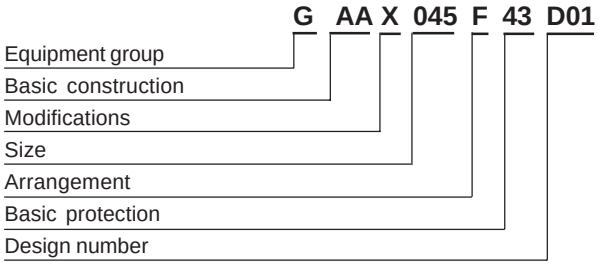


Fig. 2: Type G AA X 045 F43 D01

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. The use of the shown device in safety relevant applications needs always the written agreement of MSM.

sales@magnetschultz.co.uk
Phone: ++44 (0) 1483 794700

Type code



Order Example

Type	G AA X 045 F43 D0
Voltage	⎓ 24 V DC
Operating mode	S1 (100 %)

Specials

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.