

Permanent Holding Magnet

9

Product group

G MP ... B01 G ZZ

- According to DIN VDE 0580
- Closed circuit principle:
 - De-energized: max. holding force through integrated permanent solenoid
 - Energized: holding force is compensated
- High holding force
- Increasing force vs. stroke characteristic
- Exciter coil corresponds to insulation class B
- Electrical connection and protection class with duly executed installation
 - free flexible lead ends
 - Protection class according to DIN VDE 0470 / EN 60529 – IP 00
- Fastening with central thread on the front side
- Protection class IP 65 on request
- Application examples:
Machine construction, fixture construction, materials-handling technology, door holding devices, interlocking of all sorts



Fig. 1: Type G MP X 025 X00 B01

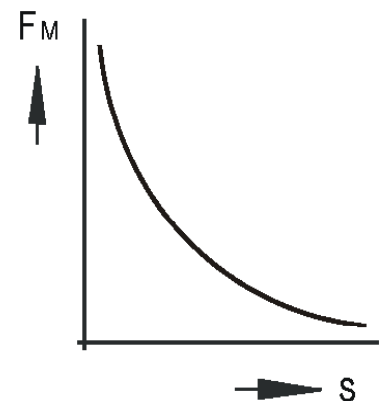


Fig. 2: Force vs stroke characteristic



Technical data

G MP X ... X00 B01		025	030	035	050
Operating mode ED		S2	S2	S2	S2
Rated power P_{20}	(W)	16	10	16	31
¹⁾ Holding force F_M at 0 mm stroke*	(N)	140	240	320	800
²⁾ Residual holding force F_{MR} at U_N and 0 mm stroke*	(N)	18	18	30	35 100
³⁾ $I_{ab} = \text{constant}$	(A)	0,55	0,35	0,5	1,1
³⁾ Residual holding force F_{MR} at $I_{ab} = \text{const.}$ and 0 mm stroke*	(N)	6	8	8	10
Reference temperature ϑ_{13}	(°C)	35	35	35	35
Solenoid weight mM	(kg)	0,053	0,106	0,200	0,577
Test specimen diameter	(mm)	25	30	35	50
* Test specimen thickness	(mm)	3	4	5	6

* The magnetic force decreases with smaller specimen thickness. If materials with a different permeability or of bad surface quality are used, deviations from rated force may be bigger.

- 1) Magnetic force values were measured from a test specimen made of 9 S Mn 28 with plane ground surface and a surface roughness of 15 μm max.
- 2) The external return forces have to be sufficiently higher than the residual force.
- 3) In order to eliminate the influence of the coil resistance (dependent on the temperature rise) on the residual force we recommend you to drive the solenoid with constant current (see also fig. 3).

Rated voltage ≈ 24 V, an adaptation of the exciter coil to a rated voltage of max. ≈ 60 V is possible.

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

This part list is a document for technically trained qualified personnel.

This publication is for informational purposes only and must not be considered as mandatory product description, unless this is confirmed expressively.

Please make sure that the described devices are suitable for your application. Please find further information about the duly assembly among others in the -Technical Explanation, the valid DIN VDE 0580 as well as in the relevant prescriptions.

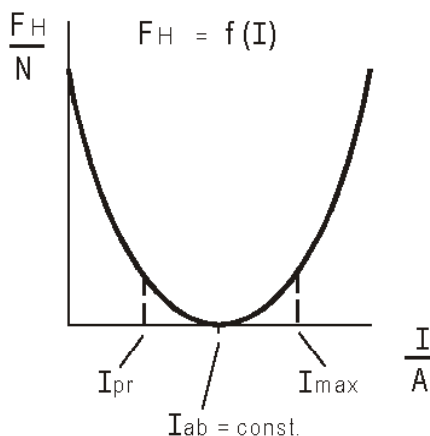


Fig. 3: characteristic

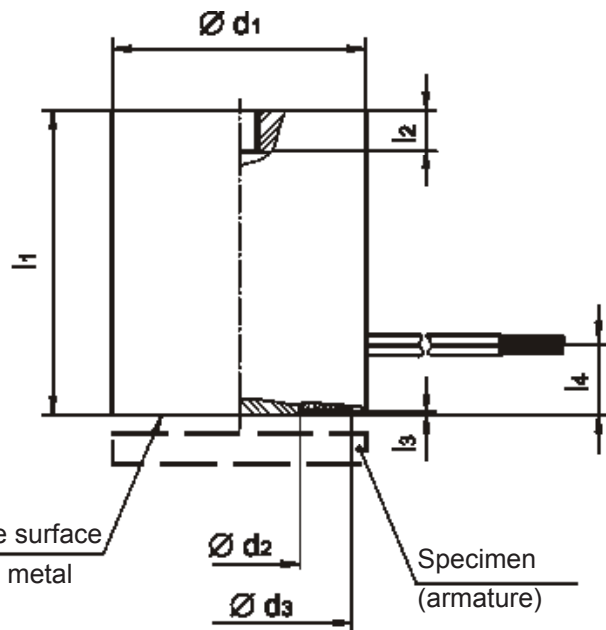
Information and remarks concerning European directives can be taken from the correspondent information sheet which is available under Produktinfo.Magnet-Schultz.com.

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.

Dimension tables

MSM, Order no.,
 Type, voltage and
 duty cycle
 Stamped
 →
 Readable



Size	025	030	035	050
Dim.	Dimensions in mm			
l_1	18	24	32	44
l_2	3,8	5,2	5	6
l_3	0,2	0,2	0,2	0,5
l_4	6,3	10,3	15	19,8
$\varnothing d_1$	25	30	35	50
$\varnothing d_2$	12	14,4	16,8	23,7
$\varnothing d_3$	22,1	26,4	30,9	44
$\varnothing d_4$	M4	M4	M5	M5

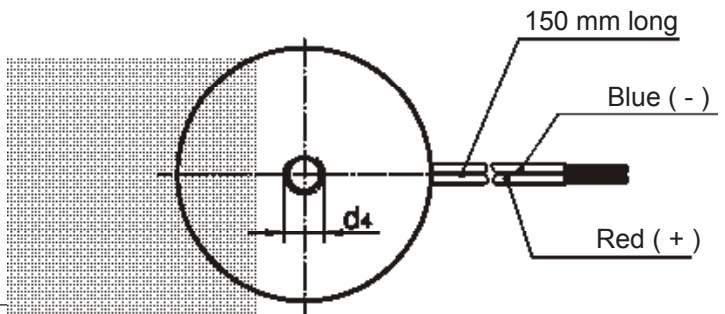
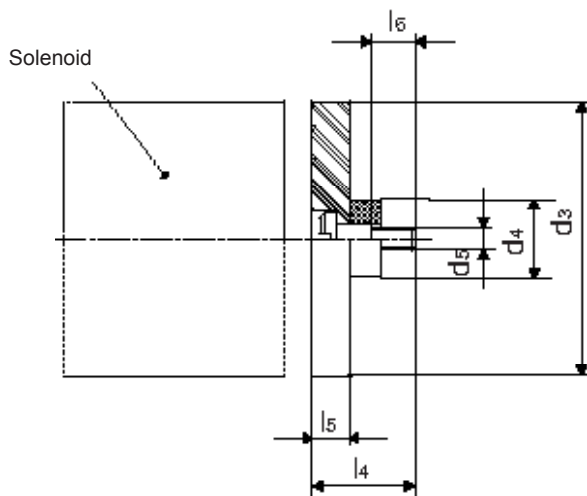


Fig. 4: Type G MP X 025 X00 B01
 To G MP X 050 X00 B01



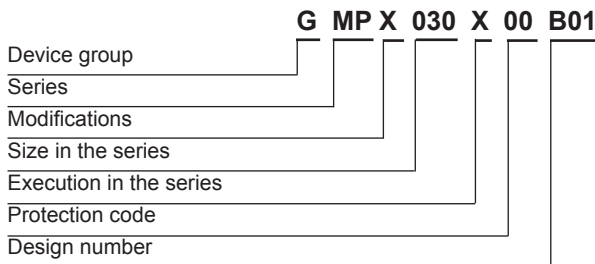
Armatures for solenoids



G Z Z E				
Size	025	030	035	050
Dim.	Dimensions in mm			
d_3	25	30	35	50
d_4	8	10,5	10,5	10,5
d_5	M3	M4	M4	M4
l_4	9,5	14	14	15
l_5	3	5	5	6
l_6	4,5	6	6	6

Fig. 5: G Z Z E 025 X 00 A01
up to G Z Z E 050 X 00 A01
(size 025-030: ... D01)
(size 035 on request)

Type code



Order example

Type G MP X 030 X00 B01
Voltage = 24 V DC
Operating mode S2 (short-time duty)

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.