

D.C. Heavy Duty Holding Magnet

Holding Force 560N

GMPX 050 X00 D02

Product group 9

Benefit from more than 100 years of experience. Use our unmatched end-to-end service: from off-the-shelf products to tailor-made designs - prototyped, tested and manufactured to your exact requirements.

Get free advice, a detailed quote or buy now

Email us at sales@magnetschultz.co.uk or call +44(0)1483 794700

- According to VDE 0580 and ISO 9001
- Electropermanent system, holds without power and releases on pulsed signal applied to coil
- Robust sealed pole face construction for high integrity weatherproof applications
- Monobloc body, chemical nickel plated, with flange mounting
- Encapsulated coil
- Protection classification - DIN VDE 0470 / EN60529
Flying leads - IP 00
- IP 68 (pole face only)
- Coil with insulation class B, for voltages up to 250 volts
- Optional armature, nickel plated, with self-aligning mounting, type GZZ, provides optimum holding force and low remanence
- Electromagnet available - see data sheet GMH 050 (supplement)
- Increased protection heavy duty holding magnet for arduous service on:
 - Diesel engines
 - Electricity generating plant
 - Switchgear
 - Offshore oil and gas production equipment
 - Fire and smoke protection systems
 - Water treatment and flood control equipment
 - Ships and shoreside equipment



Fig. 1 GMPX 050 X00 D02

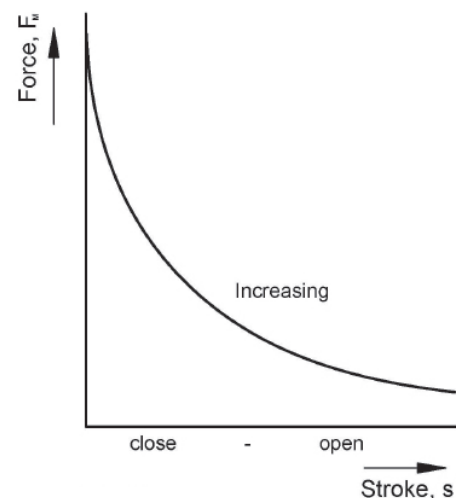


Fig. 2 Force characteristic

Performance and dimensional data for type GMPX 050 X00 D02

G MPX 050 X00 D02		
Duty rating ED (operating Mode)		Impulse (S2)
Power Consumption P ₂₀	(W)	15.2
Holding force (F _M) at 0mm Air gap ¹⁾	(N)	560
Remanence (F _{MR}) at 0mm Air gap ¹⁾	(N)	16
Holding force with armature G ZZ at 0mm Air gap ²⁾	(N)	500
Remanence with armature G ZZ at 0mm Air gap ²⁾	(N)	8
Magnet weight mm	(kg)	0.78
Armature weight mA	(kg)	0.1
Armature thickness	(mm)	6
Armature diameter	(mm)	50

Notes

1. That force produced when using plain steel armature of material (ST37) (9S Mn 28) with thickness as in table and a surface finish of 15um.
2. That force produced when using plated (chemical nickel) armature type GZZE 050 X00 A01.
3. The forces will be reduced if other material specifications, thickness and surfaces are used, or if the armature fails to make contact over the full diameter of the magnet face.
4. The magnetic remanence can be reduced by increasing the air gap. This can be achieved by machining away an area of the armature surface. But there will be a corresponding reduction in holding force.

Performance Table

Terms are explained in Technical Bulletin G XX & VDE 0580/35

Duty Rating

Impulse period should be no longer than necessary to release the armature up to a maximum of 5 seconds. Optimum release is provided in the cold condition

Table Basis

- 24V DC impulse duty (S2)
- Ambient temperature 35°C.
- Lifting vertically. Free air mounted
- Tolerance +/- 10% (inherent and manufacture)

Application

Correct polarity must be observed to overcome permanent magnet. Optimum release is provided in the cold condition, thus impulse operation is advised. Prolonged heat or heavy impact may reduce the special alloy permanent magnet holding force. Flux path design permits electromagnetic release without harm to permanent magnet. Reduced holding force will result if the armature fails to make positive contact over the full diameter of the magnet face

Supply Voltage

- Standard DC: 24V, 205V (for A.C. 50 / 60Hz rectified, 230V) (max.250V)
- Separate external rectifier can be provided
- Other voltages on request / other designs on request

Power Consumption (P₂₀)

is listed wth 20°C coil temperature (decrease/HOT)

Magnetic Force (F_m)

is quoted nett of armature weight. Adjust for armature weight

Conversion Factors

1N = 0.102 kp ≈ 0.1kp	1 Ncm = 0.102 kpcm ≈ 0.1 kpcm
1 kp = 1 kg = 2.2lbs	1 mm = 0.039 in
1 cmkp = 0.856 in. lbs	

Order Code

Type: GMPX 050 X00 D02

Voltage: 24V D.C.

Duty Rating (operating mode): Impulse (S2)

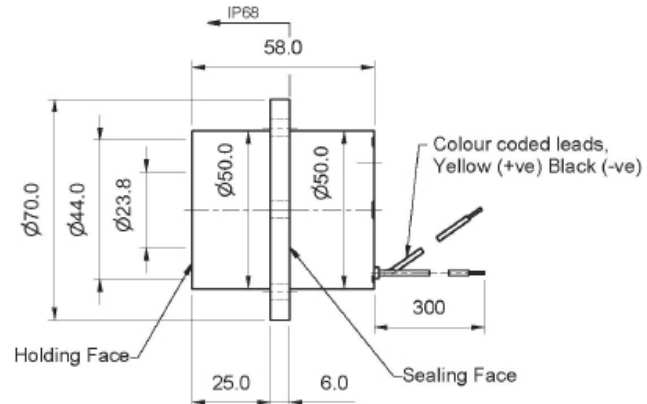
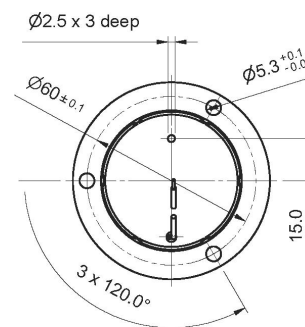


Fig.3 GMP x 050 x00 D02



Need more information or advice?

Email one of our technical experts at sales@magnetschultz.co.uk or call +44(0)1483 794700 now