## MAGNET-SCHULTZ SOLENOIDS AND SOLUTIONS



# Miniature DC Holding Magnet

20mm diameter Holding force 70 N Rectifier for AC supply

# Type GMH x020x00D01

(supplement)

Product group

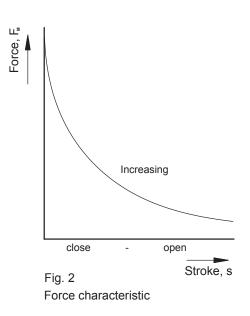
- According to VDE 0580 and ISO 9001 (conform with article 10 of direction 73/23/EEC - according to CENELEC memorandum no. 3 of March 1987
- Energise to hold
- Miniature 20mm diameter
- High holding force 70 N
- Robust construction, zinc plated and passivated
- Rear face fixing
- Increasing force characteristic (Fig.2)
- Coil with insulation to class B, for voltages up to 110 volts (external rectifer for AC supply)
- Protection classification DIN VDE 0470/E 60529
  Flying leads IP 00
- Larger electromagnets 25 to 100 mm diameter (forces up to 3370 N) available, see list G MH
- Electropermanent (energise to release) magnets available, see list G MP

Application

Locking of access flaps and hatches Robotic handling systems Machine tools Short stroke/high force operations Textile machinery



Type GMH X020X00D01 Fig. 1



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QUALITY SINCE 1912

### Performance and dimensional data

GMH X020X00D01		
Duty rating (ED)	%	100
Holding force (F <sub>M</sub> ) <sup>1)</sup>	(N)	70
Power consumption (P <sub>20</sub> )	(W)	1.9
Ambient temperature ( 11)	(°C)	35
Weight	(kg)	0.025
Armature thickness	(mm)	2.5
Armature diameter	(mm)	20

#### PERFORMANCE TABLE

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

#### **TABLE BASIS**

24V/100% (S1) dutyHeat Insulated baseAmbient temperature 35°CFree air mountedLifting vertically. Tolerance +/- 10% (inherent and manufacture)

#### SUPPLY VOLTAGE

Standard DC: 24V, Separate external rectifier can be provided for AC supply

#### **DUTY RATING**

% of energised time per operation cycle:  $\frac{t (on)}{t (on) + t (off)} \times 100$ 

Max energized time/cycle: 100% (S1) continuous: 40% (S3) - 120 secs, 25% (S3) - 75secs, 15% (S3) - 15secs, (Force figures available for respective duty ratings)

#### PROTECTION

The body and pole faces of the magnet are passivated zinc plated for corrosion protection

#### NOTES

1. That force produced when using plain pole faces and plain steel armature of material (ST37) (9S Mn 28) with thickness as in table and a surface finish of  $15\mu$ m

2. The forces will be reduced if other material specification, thickness and surfaces are used, or if the armature fails to make contact over the full diameter of the magnet face.

#### MOUNTING

Single tapped hole in rear face. Any attitude may be used.

#### MAGNETIC FORCE (F<sub>M</sub>)

is listed in HOT condition at 90% of rated voltage (increase approx 20% at rated voltage). Adjust for armature weight

### POWER CONSUMPTION (P<sub>20</sub>)

is listed with 25°C coil temperature (decrease/HOT). The temperature rise is limited to 60°C to provide a low surface contact temperature. the magnetic forces can therefore be increased with special coil winding for continuous or short duty

