

## DC Open Frame Solenoid

Rectifier for AC supply  
Stroke up to 9mm  
Work Rating up to 9.00 Ncm

1

Product group

**GFCX 030 X00 E13**

### Function

- increasing force characteristic (fig.2)
- pull and push operation - conical spring return available
- available as linear shotbolt/spring return for energise to lock or unlock operation

### Construction

- increased protection for arduous service
- encapsulated coil
- high-endurance, maintenance-free bearings
- plated iron parts, pole piece and armature
- coil insulation class F
- protection rating IP00
- suitable for mounting in any attitude
- fork ends available (list ZGA)

### Applications

- machine tools, office machines, automation
- remote control, packaging and coin equipment
- medical equipment, textile machinery

### Standards

- designed and tested to VDE 0580
- manufactured to ISO 9001



Fig. 1  
Type GFCX 030 X00 E13

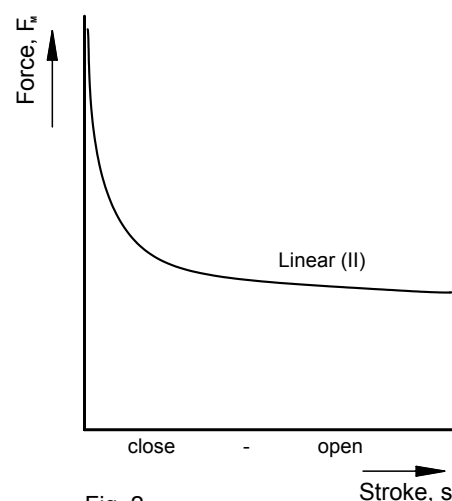


Fig. 2  
Force characteristic

## Performance and dimensional data for type GFCX 030 X00 E13

| Duty Rating ED %                                  |       | 100%<br>S1 | 40%<br>S3 | 25%<br>S3 | 15%<br>S3 | 5%<br>S3 |
|---------------------------------------------------|-------|------------|-----------|-----------|-----------|----------|
| Stroke s, rated stroke (max stroke) <sup>1)</sup> | (mm)  | 5 (9 max)  |           |           |           |          |
| Holding force                                     | (N)   | 11         | 17        | 20        | 25        | 32       |
| Magnetic force F <sub>M</sub> at rated stroke     | (N)   | 4.3        | 8.3       | 9.9       | 12.7      | 17.5     |
| Magnet force F <sub>M</sub> at max - stroke       | (N)   | 0.8        | 1.8       | 2.6       | 4.5       |          |
| Work rating A <sub>N</sub>                        | (Ncm) | 2.15       | 4.15      | 4.95      | 6.35      | 8.75     |
| Rated Power P <sub>20</sub>                       | (W)   | 7          | 15        | 20        | 36        | 83       |
| Frequency of operation S <sub>h</sub>             | (1/h) | 22000      | 15000     | 9000      | 5500      | 1900     |
| Closing time t <sub>1</sub>                       | (ms)  | 70         | 70        | 70        | 70        | 70       |
| Opening time t <sub>2</sub>                       | (ms)  | 50         | 45        | 40        | 35        | 32       |
| Armature Weight m <sub>A</sub>                    | (kg)  | 0.03       |           |           |           |          |
| Solenoid Weight m <sub>M</sub>                    | (kg)  | 0.16       |           |           |           |          |

<sup>1)</sup> 0mm is completion of energised stroke

## Table Basis

The terms used are defined in Technical Explanation GXX

Magnetic forces  $F_M$  stated are based on

- 24v DC supply
- 35°C ambient temperature
- working in the Hot condition
- armature in horizontal attitude
- 90% of the rated voltage
- heat-insulated mounting

$$\text{Duty Rating ED, \% of energised time/cycle: } \frac{t_{\text{on}}}{t_{\text{on}} + t_{\text{off}}} \times 100$$

Max. energised time/cycle: 100% continuous, 40% - 120 secs, 25% - 75secs, 15% - 45secs, 5% - 15secs

The operating life of high wattage coils should be confirmed by test in the application

Rated Power  $P_{20}$  stated with coil at 20°C

Operating times  $t_1 / t_2$  stated are based on

- Hot condition
- rated voltage
- weight load of 70% of  $F_M$  at and over rated stroke

Values given may vary by up to 10% owing to inherent and manufacturing tolerances

## Supply Voltage

Standard voltages available : 24v DC and 205v DC (for rectified 230v 50/60Hz)

Other voltages upon request

### Example Order Code

|         |                  |
|---------|------------------|
| Type    | GFCX 030 X00 E13 |
| Voltage | 24v DC           |

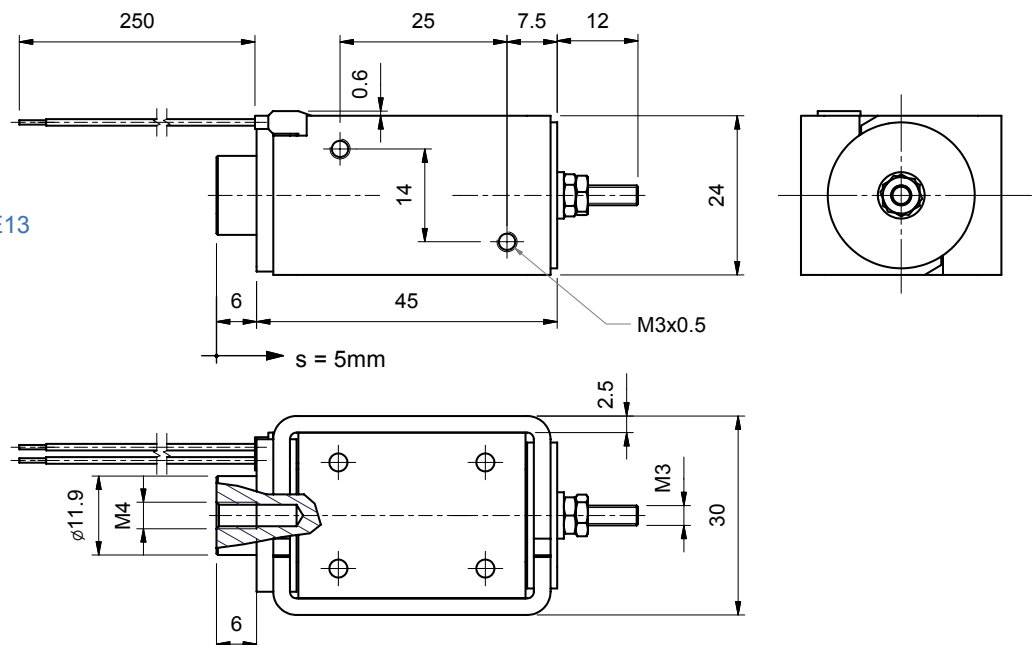


Fig 3.  
GFCX 030 X00 E13