

## 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

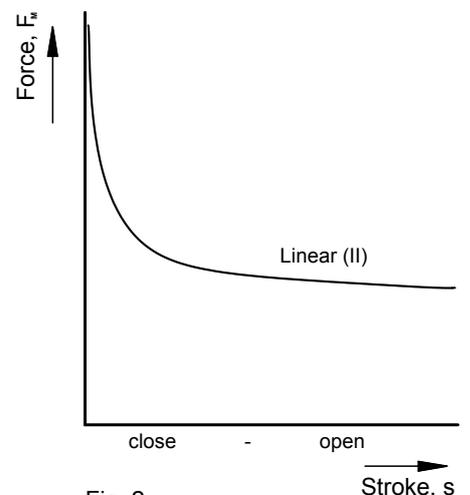


Fig. 2  
Force characteristic



Performance and dimensional data for type GFCX 030 X00 E13

Duty Rating ED %		100% S1	40% S3	25% S3	15% S3	5% 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<sub>M</sub> stated are based on

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

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

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<sub>20</sub> stated with coil at 20°C

Operating times t<sub>1</sub> / t<sub>2</sub> stated are based on

- Hot condition
- rated voltage
- weight load of 70% of F<sub>M</sub> 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

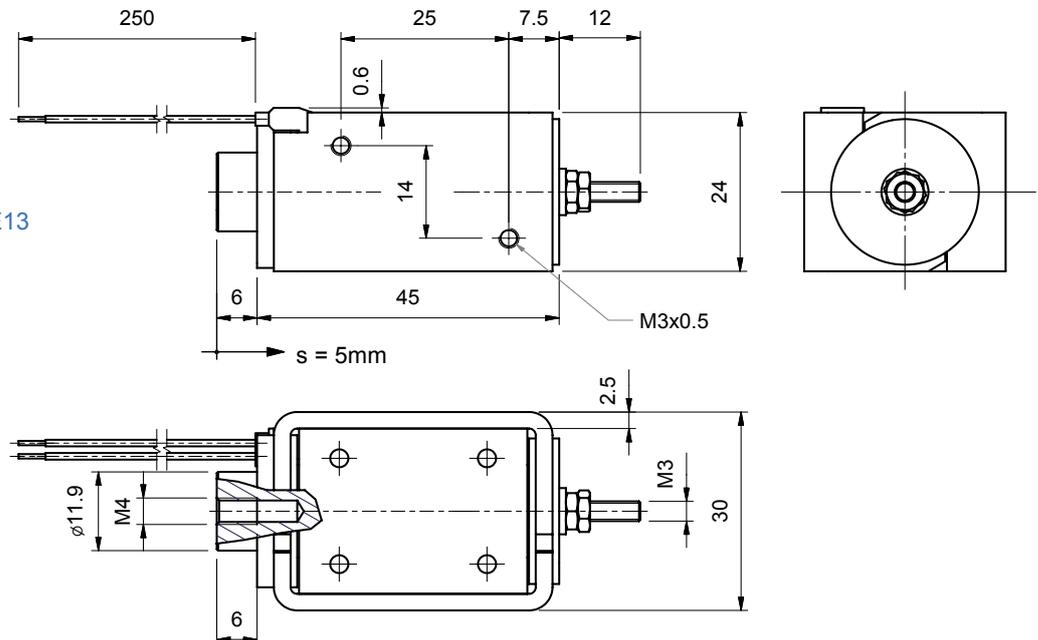


Fig 3.  
GFCX 030 X00 E13