

710-7614

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SOLENOID COMPANY LTD
 ELECTROMAGNETIC EQUIPMENT



D.C. Open Frame Solenoid

Encapsulated coil, plated iron parts

Rectifier for A.C. supply
 Stroke up to 9mm
 Work Rating up to 9.00 Ncm

1

Product group

Type **GFC** X 030 X00 E13
 (supplement)

- According to VDE 0580 and ISO 9001 (conform with article 10 of directions 73/23/EEC - according to CENELEC memorandum no.3 of March 1987).
- Increasing force characteristic (fig.2)
- Small dimensions
- Push and pull operation - Conical spring return available.
- High endurance, maintenance free P.T.F.E. armature and pushrod bearings.
- Coil with insulation to class F, for voltages up to 250 volts.
- Protection classification - DIN VDE 0470 / EN60529
Flying leads - IP 00
- Encapsulated coil
- Plated iron parts, pole piece and armature.
- Suitable for mounting in any attitude.
- Available with linear shotbolt / spring return for energise to lock or unlock operation.
- Fork ends (list ZGA).

Increased protection open frame solenoid for arduous service on:

Machine tools	Office machines
Motor vehicles	Remote control
Automation	Medical equipment
Packaging and coin equipment	
Textile machinery	

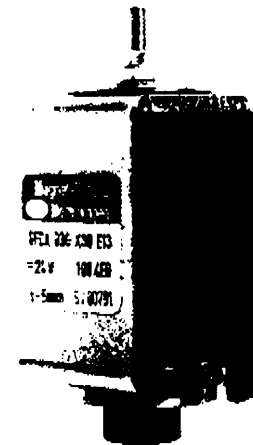


Fig. 1
 GFCX 030 X00 E13

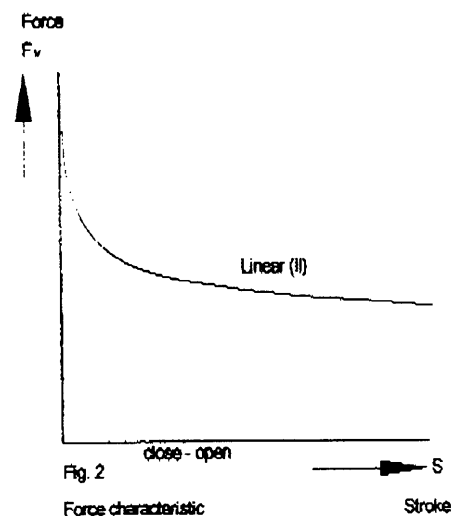


Fig. 2

Force characteristic

Stroke



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Product group 1

Performance and dimensional data for type GFCX 030 X00 E13

GFC X 030 X00 E13		100	40	25	15	5
Duty rating ED	(%)	100	40	25	15	5
Stroke s rated stroke (max stk.) ¹⁾	(mm)	5 (9 max.)				
Holding force	(N)	11	17	20	25	32
Force rating F _M at rated stroke	(N)	4.3	8.1	10.2	14.2	21.2
Force rating F _M at max. stroke	(N)	0.8	1.8	2.6	4.5	8.8
Work rating A _N	(Ncm)	2.2	3.9	4.8	8.3	9.0
Power Consumption P ₂₀	(W)	7	15	20	36	83
Closing time t ₁	(ms)	70	70	70	70	70
Opening time t ₂	(ms)	50	45	40	35	32
Armature weight m _A	(kg)	0.03				
Solenoid weight m _S	(kg)	0.16				

¹⁾ 0mm is completion of energised stroke.

PERFORMANCE TABLE

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

TABLE BASIS

24V / 5 - 100% duty. Ambient temperature 35°C.
 Heat insulated base. Free air mounted.
 Horizontal working. Pull arrangement.
 Tolerance +/- 10% (inherent and manufacture).

Conversion Factors

1 N = 0.102 kp ≈ 0.1 kp
 1 Ncm = 0.102 kpcm ≈ 0.1 kpcm
 1 kp = 1 kg = 2.2 lbs
 1 mm = 0.039 in.
 1 cmkp = 0.866 in. lbs

MAGNETIC FORCE (F_M)

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

POWER CONSUMPTION (P₂₀)

is listed with a 20°C coil temperature (decrease / HOT).

DUTY RATING (ED%)

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

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

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

OPERATING TIMES (t₁/t₂)

are listed per cycle of operation in HOT condition at rated voltage with weight load of 70% of force (F_M) at and over rated stroke.

SUPPLY VOLTAGE

Standard DC: 24V, 97V, 205V (for A.C. 50 / 60Hz rectified, 110V, 230V) (max 250V).
 Separate external rectifier can be provided for A.C. supply.

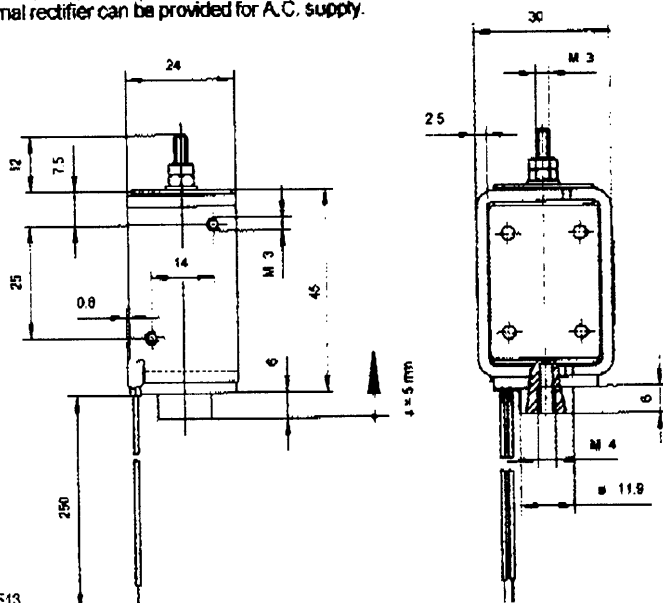


Fig 3
GFC X 030 X00 E13

Dimensions without guarantee - modifications reserved

Subject to our Standard Conditions

Order Code

Type GFCX 030 X00 E13
 Voltage 24v D.C.
 Duty rating (ED%) 100%