

## D C Small Shotbolt Lock Assembly

Spring to lock - energise to unlock  
Stroke 10mm  
(Rectifier for A.C. supply)

1

Product group

### Type G HU Z 040 M20 D03

- 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)
- Spring to lock, energise to unlock
- Integral spring and high endurance, maintenance free bearings
- Robust cylindrical construction
- Threaded nose mounting
- Suitable for mounting and operation in any attitude
- Force characteristic (Fig. 2)
- For direct-acting solenoid equivalent see data sheet G TCA
- Coil with insulation to class F, for voltages up to 250 volts
- Protection classification - DIN VDE 0470 / EN60529  
Flying leads - IP 00
- Shotbolt, ratchet and holding magnet locks available in other product groups
- Application



Fig. 1  
G HU Z 040 M20 D03

Access Controls

Shutters

Interlocks

Machine Tools

Guards interlocking applications in commerce and industry and gates indexing



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Performance and dimensions for type G HU Z 040 M20 D03

G HU Z 040 M20 D03		
Duty rating (ED)	(%)	100
Stroke (s)	(mm)	10
Work rating (A <sub>N</sub> )	(Ncm)	10.8
Power consumption (P <sub>20</sub> )	(W)	12.9
Ambient temperature (δ <sub>11</sub> )	(°C)	35
Frequency of operating (S <sub>h</sub> max)	(1/h)	25000
Closing time (t <sub>1</sub> )	(ms)	85
Opening time (t <sub>2</sub> )	(ms)	50
Armature weight (m <sub>A</sub> )	(kg)	0.078
Solenoid weight (m <sub>M</sub> )	(kg)	0.46
Radial bolt load (max) allowable (approx)	static	(N) 1500
	stroke	(N) 8

**PERFORMANCE TABLE**

Terms are explained in Technical Bulletin G XX & VDE 0580

**TABLE BASIS**

24V DC 100% duty. Ambient temperature 35°C  
Heat insulated, free air. horizontal/pull mounted  
Tolerance +/- 10% (inherent and manufacture)

**MOUNTING**

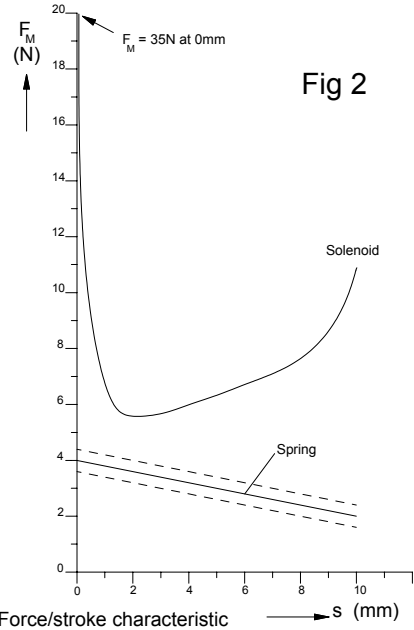
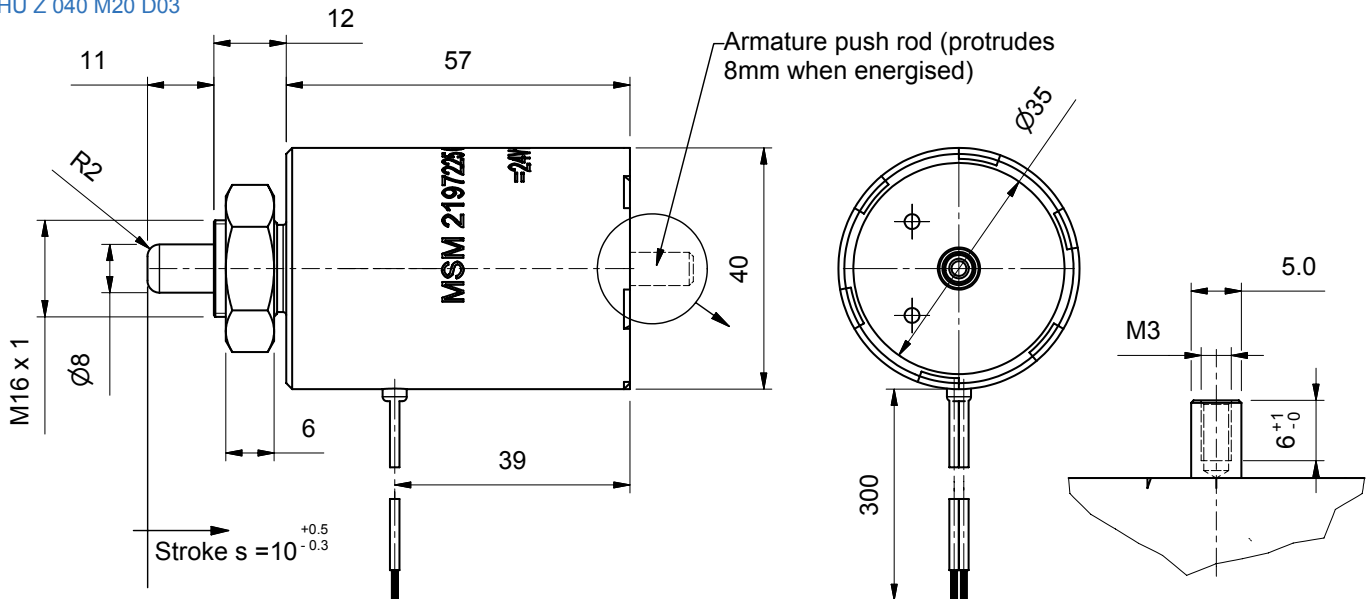
Threaded nose mounting with lock nut provides high rigidity. Shotbolts of other sizes and mounting arrangements including ratchet and holding magnet locks are in product groups: G HU Z, G FC, G TC A, G TC E, G DA, G DC, G MH, G MP.

**LOCK-BOLT**

Radial load to the bolt should be kept within the max. allowable (see table above) so ensuring maximum reliability and operational life with a minimum of maintenance. electronic control is available to give increased stroke force with continuous duty hold. over voltage of 2:1 will give approx. 20N at initiation of stroke

**DUTY RATING (ED %)**  
% of energised time per cycle  $\frac{t(\text{on})}{t(\text{on}) + t(\text{off})} \times 100$

Fig.3  
G HU Z 040 M20 D03



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

Listed with a 20°C coil temperature (decrease/HOT)

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

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

**OPERATING TIMES**

(t<sub>1</sub>/t<sub>2</sub>) are listed per cycle of operating in HOT condition at rated voltage with weight load of 70% of force (F<sub>M</sub>) at and over rated stroke

**SUPPLY VOLTAGE**

The standard supply voltages are: 12V and 24V, DC other voltages upon request

**PROTECTION**

Passivated zinc body

**ORDER CODE**

Type G HU Z 040 M20 D03  
Voltage 24V D.c.  
Duty rating (ED%) 100%