

## Electromagnetically actuated shotbolt lock unit

# 1

Product group

## G HU Z 040

- According to DIN VDE 0580
- Almost linear magnetic force vs. stroke characteristic
- Solidly executed shotbolt
- Pull type (de-energized locked)  
or push type (de-energized unlocked)
- Installed return spring
- Maintenance free bearings with high service life
- With and without signal switch
- Insulation materials of the excitation winding correspond to thermal class F
- Electrical connection and protection class when properly installed:
  - Plug connection by spade connectors according to DIN 46247  
Protection class according to DIN VDE 0470-1/  
DIN EN 60529 – IP 00
  - Plug connection via plug connector type Z KC  
according to DIN EN 175 301-803  
Cable gland (2 x 180-degree rotatable)  
Protection class according to DIN VDE 0470-1/  
DIN EN 60529 – IP 40
  - For connection of signal switch cable gland PG 7
- Mounting via central thread
- Please contact us for application related solutions
- Application examples (according to health and safety at work regulations and according to accident preventing regulations):  
Interlocking of protectors of machines of all sorts

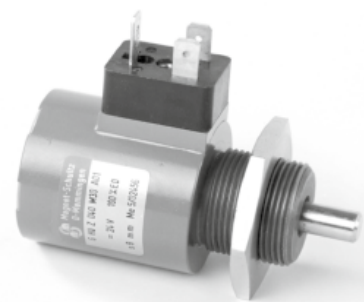


Fig. 1: Type G HU Z 040 M30 A01



Fig. 2: Type G HU Z 040 M30 A02

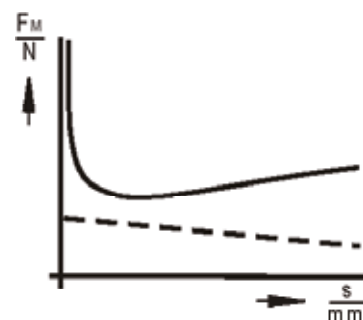


Fig. 3: Force vs. stroke characteristic

## Technical data

G HU Z 040	A01	A02
Operating mode	S1 100%	
Stroke s (mm)	8	
Rated work $A_N$ (Ncm)	6,4	
Rated power $P_{20}$ (W)	10,6	
Reference temperature $i_{11}$ (°C)	35	
Operating frequency $S_h$ (1/h)	25000	
Actuation time $t_1$ (ms)	80	
Fall time $t_2$ (ms)	50	
Armature weight $m_A$ (kg)	0,07	
Solenoid weight $m_M$ (kg)	0,42	0,58
Maximum lateral load: Shotbolt in normal position (N)	1500	
in motion (N)	8	

Rated voltage  $\approx$  24 V, the exciter coil can be adjusted to a rated voltage of  $\approx$  250 V on request.

The force values  $F_M$  shown in fig. 4 refer to 90% of the rated voltage ( $U_N = \approx$  24 V, for other voltages deviations of magnetic force may occur) and to the normal operating temperature.

Due to natural dispersion the force values  $F_M$  and the force values of the spring  $F_F$  may deviate by  $\pm 10\%$  from the values indicated in the tables.

The normal operating temperature is based on:

- Rated voltage  $\approx$  24 V
- Operating mode S1 (100%)
- Reference temperature 35° C

The stroke movement effected by the electromagnetic force can be pulling or pushing depending on the design.

The reset in the stroke start position is effected by the built-in spring. Both operations "de-energized locked" and "de-energized unlocked" are possible. However, the operation "de-energized locked" is preferable.

The central fastening guarantees a reliable and flexible mounting.

### Shotbolt lock units with switch

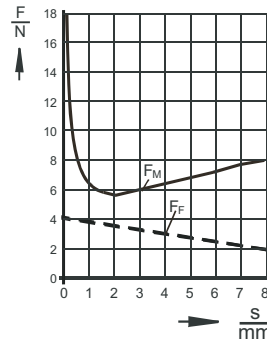
The locking devices dispose additionally of a respective switch (5 A,  $\sim$  250 V) which actuates for the type

G HU Z 040 M30 A02 approx. 2 mm

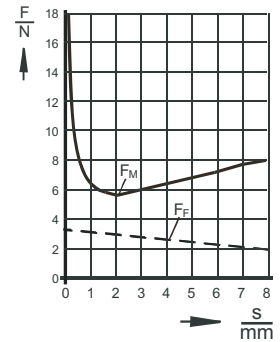
and for the type

G HU Z 040 N30 A02 approx. 3 mm

before the end of the lock distance and which shows the correct snap-in.



G HU Z 040 M 30 A..  
0 mm: 30 N



G HU Z 040 N 30 A..  
0 mm: 30 N


Fig. 4: Force vs. stroke characteristic and characteristic of the return spring

For connection with plug connector Z KC X or Z KC G please take into consideration the max. continuous current of the plug.

**Information and remarks concerning European directives** can be taken from the correspondent information sheet which is available under [Produktinfo.Magnet-Schultz.com](http://Produktinfo.Magnet-Schultz.com).

### Note on the RoHS Directive

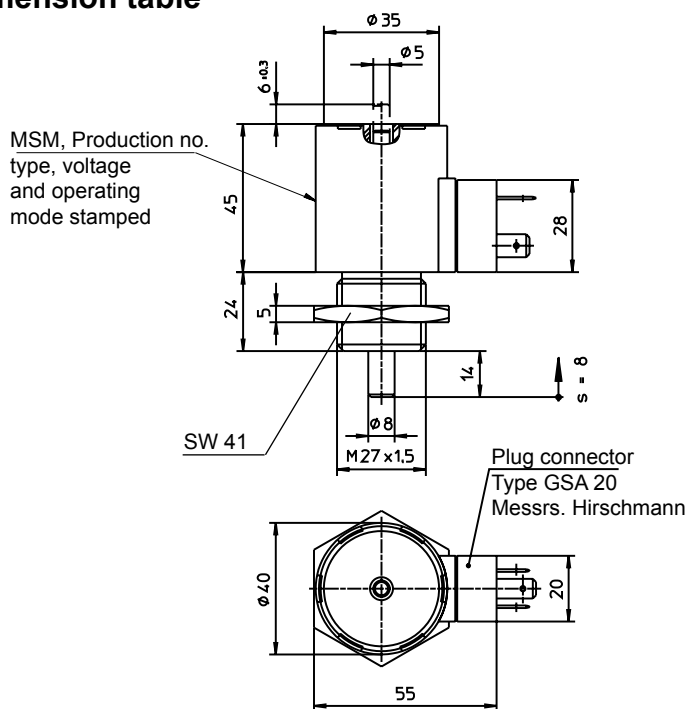
According to our current state of knowledge the devices pictured in this document do not contain any substances in concentration values or applications for which putting into circulation with products manufactured from them is prohibited in accordance to RoHS.

**Please make sure that the described devices are suitable for your application. Supplementary information concerning its proper installation can be taken also from the  -Technical Explanation, the effective DIN VDE0580 as well as the relevant specifications.**

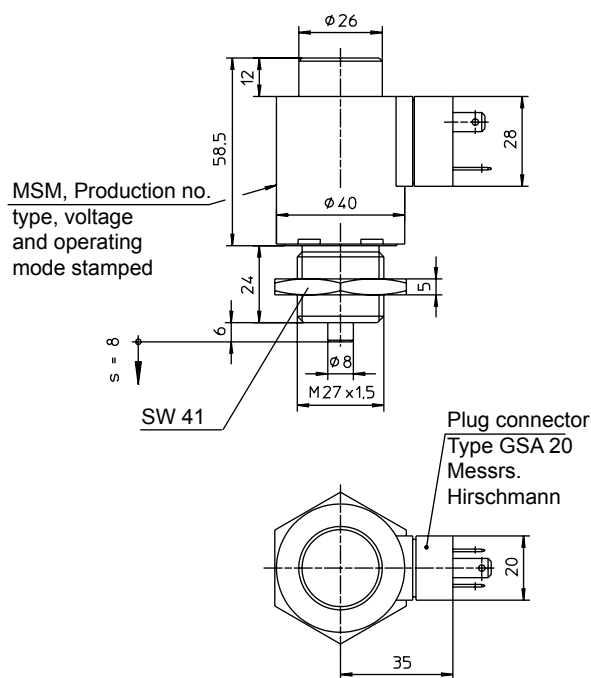
This part list is a document for technically qualified personnel.

The present publication is for informational purposes only and shall not be construed as mandatory illustration of the products unless otherwise confirmed expressively.

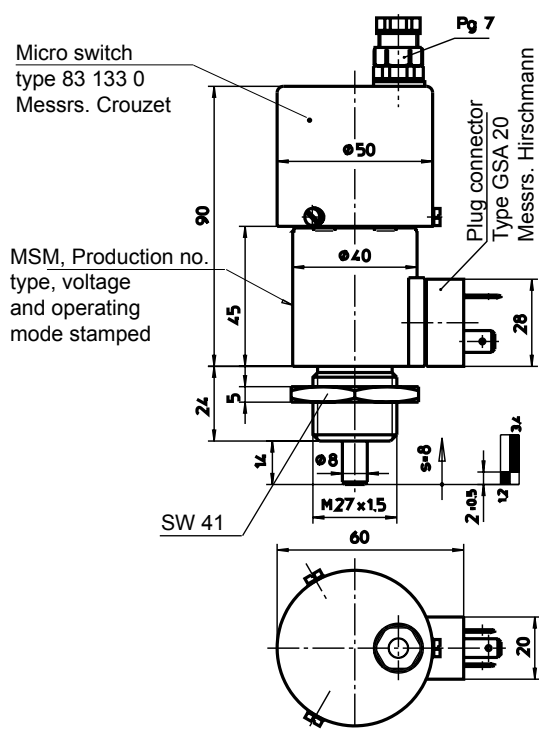
## Dimension table



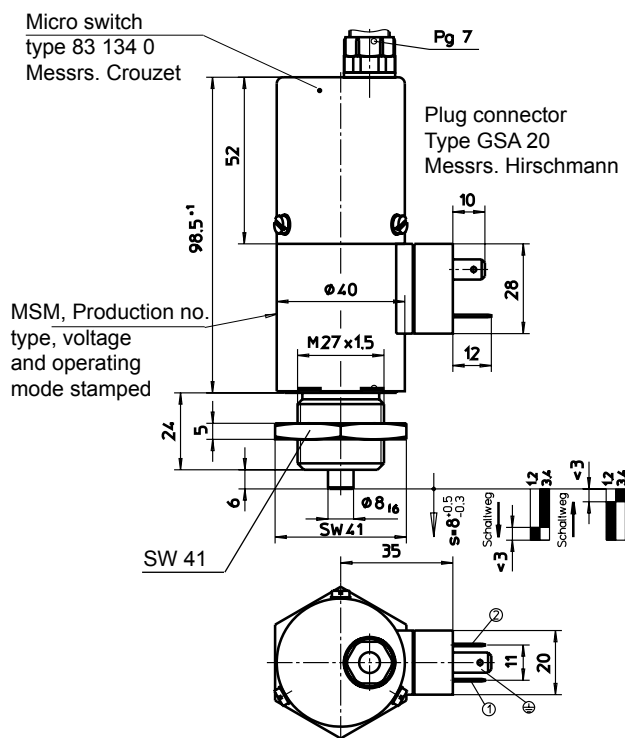
**Fig. 5:** Type G HU Z 040 M30 A01  
Pull type (de-energized locked)



**Fig. 6:** Type G HU Z 040 N30 A01  
Push type (de-energized unlocked)



**Fig. 7:** Type G HU Z 040 M30 A02  
Pull type (de-energized locked)



**Fig. 8:** Type G HU Z 040 N30 A02  
push type (de-energized unlocked)

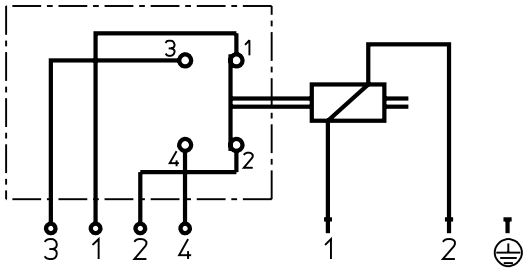


Fig. 9: Circuit diagram for G HU Z 040 M30 A02

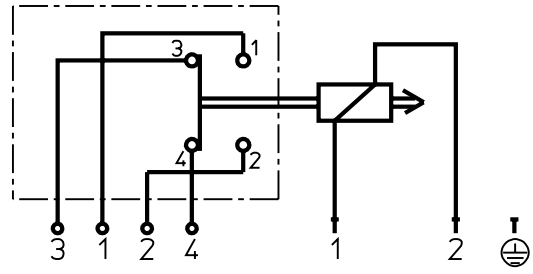
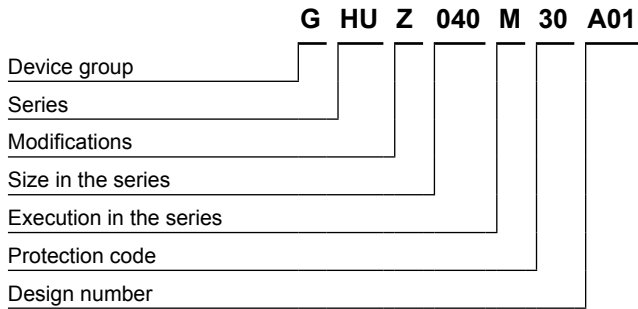


Fig. 10: Circuit diagram for G HU Z 040 N30 A02

## Type code



## Order example

Type                    G HU Z 040 M30 A01  
 Voltage                == 24 V DC  
 Operating mode        S1 (100 %)

## Specials designs

Please do not hesitate to ask us for application-oriented problem solutions. In order to find rapidly a reliable solution we need complete details about your application conditions. The details should be specified as precisely as possible in accordance with the relevant -Technical Explanations.

If necessary, please request the support of our corresponding technical office.