

Right-angle Solenoid Shotbolt

Type 60,61

Function

- energise-to-lock (T60) or spring-to-lock (T61)
- adjustable bolt position switch
- integral manual over-ride
- DC or AC supply
- 15mm bolt stroke

Standard features

- coil insulation class F, maximum voltage 250V
- flange mounting, installation in any attitude
- slam-shut/lock when closed
- right-angle design (for reduced dimension on axis of bolt travel)
- flat-ended bolt or chamfered for slam-shut operation
- high performance, corrosion resistant, maintenance-free bearings

Options

- enclosed, weatherproof and IP65
- up to 20mm stroke with coil over-voltage
- special fascia plates and door-proving switches
- different bolt lengths
- alternative switch arrangements
- bowden cable manual override

Applications

- machine guards, stops, security doors, grills & gates
- general industrial interlocking applications
- access and platform lifts for DDA

Standards

- solenoid designed and tested to VDE 0580
- ISO 9001
- EN81 for DDA lifts



Fig. 1 T61 Standard version

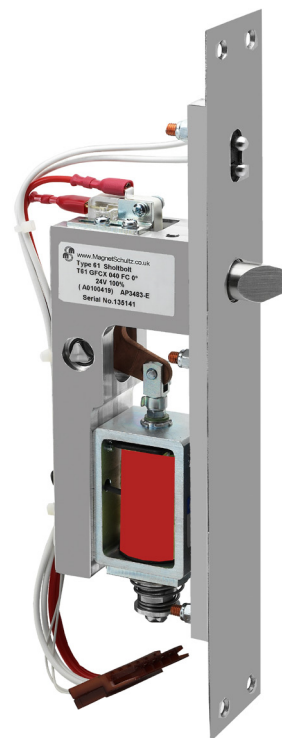


Fig. 2 T61 Custom version

Type 60, 61		
Operating mode - Duty Rating ED	S1 100%	
Stroke s (mm)	Magnetic force F_M (N)	Spring return- force (N)
	0	9
	15	2.8
Rated Power P_{20}	(W)	14
Weight	(kg)	1
Radial bolt load, max allowable	(N)	3000*

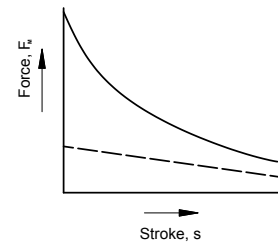


Fig. 3 Force characteristic

Table Notes

0mm is completion of energised stroke

Force figures F_M are gross. For net values deduct spring force

* The bolt will not withdraw if a side-load is present.

Table Basis

The terms used are defined in Technical Explanation GXX

Magnetic forces F_M stated are based on

- 24v 100% duty coil
- 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:

$$100\% : \text{continuous duty} \quad \frac{t(\text{on})}{t(\text{on}) + t(\text{off})} \times 100$$

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

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

Shotbolts Type 60,61 incorporate solenoid GFCX040X00E23. For solenoid performance and other details refer to data sheet 'GFC'.

Supply Voltage

Standard voltages available : 12v, 24v DC and 205v DC (for rectified 230v 50/60Hz)

Other voltages upon request

Safety

The customer is responsible for ensuring that devices are suitable for their application and that, even if they should fail, safety in use is not compromised. We supply Technical Explanation documents to help users understand our products and assistance is always available from our technical department

Versions

Other shotbolt types are available – see respective data sheets

Also, special and modified versions, including

- ATEX
- IP54 and IP65 protection
- special finishes
- long strokes

Contact our technical department for assistance

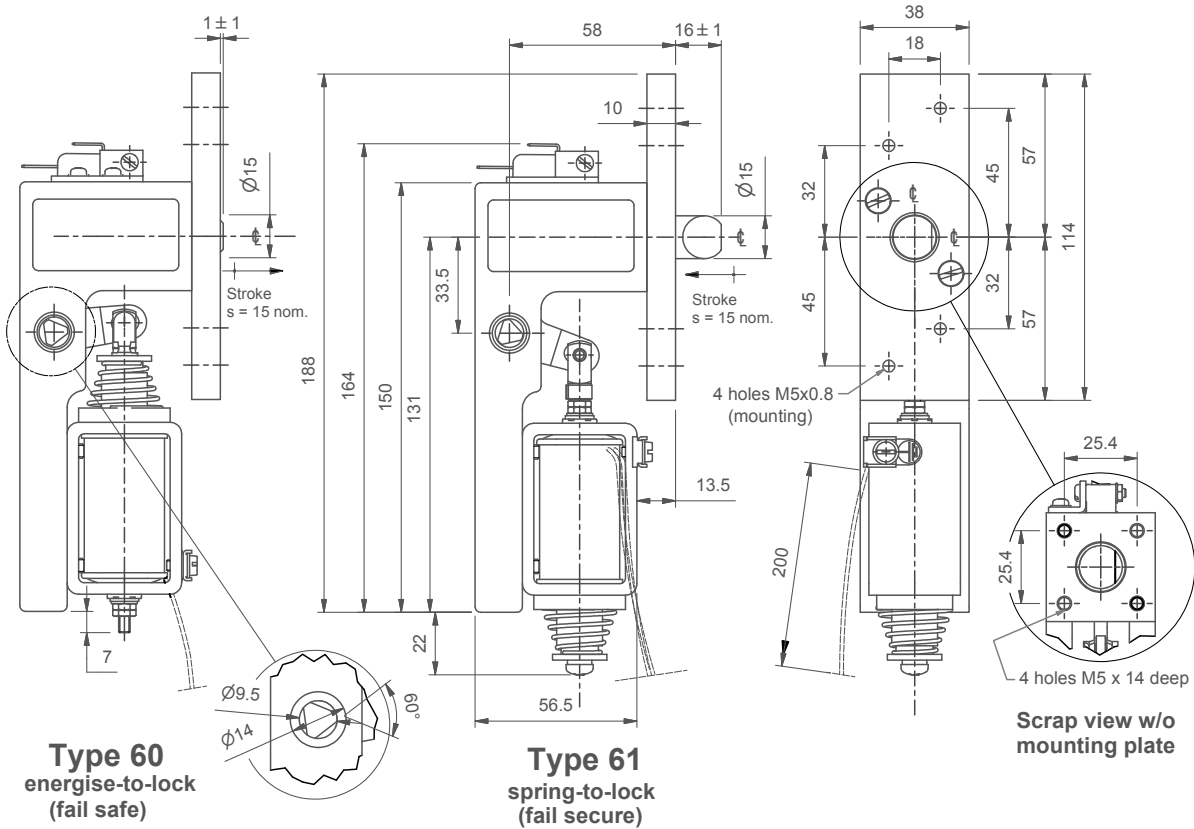


Fig. 4 Dimensions

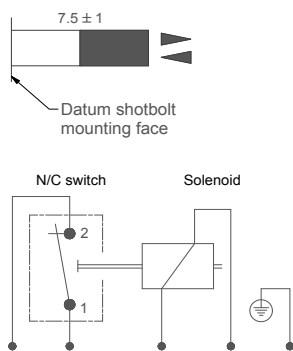


Fig. 5 N/C positive break switch

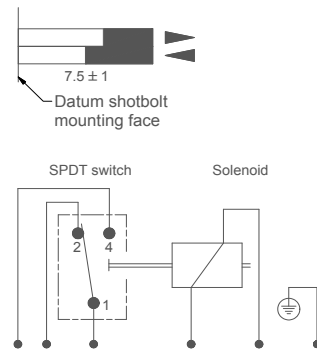


Fig. 6 Snap action change over switch

Switch

Both Type 60 (energise-to-lock) and Type 61 (spring-to-lock) shotbolts incorporate a switch, with the options of switch type :

- Positive break (forced contact) switch Max 250VAC 10A – see Fig 5.
- Snap action switch rating 250VAC 5A – see Fig. 6

The switch is set as standard at 7.5±1mm protrusion from the mounting datum. Other switch set positions and types (E.g. double-pole, IP65, etc) can be provided on request.

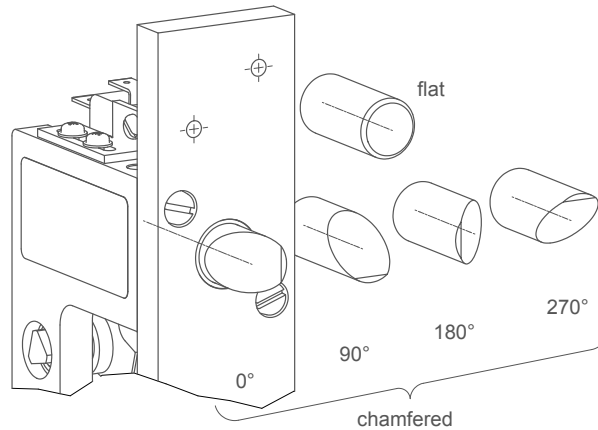


Fig.7 Bolt options

Order example: **T61 GFCX040 FC CH 0° 24V 100%**

Order codes table:

Order Example	T61	GFCX040	FC	CH	0°	24v 100%
Group and function type	T60 - Energise-to-lock T61 - Spring-to-lock					
Solenoid type		GFCX040				
Switch type			FC - forced contact SA - snap action			
Bolt design				CH - chamfered FL - flat end		
Chamfered bolt angle - - see Page 3, Fig.5					0° 90° 180° 270°	
Voltage % duty rating						24v 100%

Ancillary Items	Order Code
Manual override key fig.8	P0200478
Door proving Contact set to SK6619 fig.9	P0200342



Fig. 8 Override key

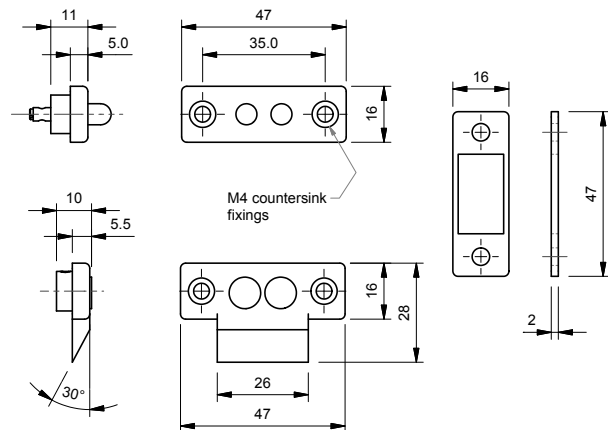


Fig.9 Door proving contact set