# **Electromechanical Bolts**

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## TB25 Drop Bolt

#### **General Information**

The TB25 drop bolt represent true engineering innovation, design excellence and the superior quality customers have come to expect and demand from Trimec. Designed for use on swing-through, double action doors, these drop bolts are ideal for applications where an electric strike is impractical.

#### Features

- High Security. Bolt is deadlocked in the extended position
- Bolt position monitored
- Door position monitor with integrated magnet into the strike plate (no need to install a separate reed switch)
- Multiple Orientation, drop bolts will work horizontally or vertically
- Power to Lock/ Power to Open
- Continuously Rated Solenoid
- Tamper Proof. Lock cannot be defeated by slipping a metal object between lock and striker plate
- Intelligent Electronics. These intelligent bolts will attempt to re-close the bolt 8 times, allowing time for swing through doors to settle in the closed position
- Thermal Protection. In the event of solenoid overheat, a thermal fuse will operate, eliminating any fire risk

#### **Applications**

- Glass doors
- Timber doors



#### **Standards and Compliance**

BSI British Standard BSEN 50081-1 BSEN 50082-1



CE Approved

C-tick Certified

## **TB25** Drop Bolt



#### **TB25 Drop Bolt Technical Information**

Voltage	12 to 24Vdc
Current (Start)	1100mA @ 12Vdc, 1000mA @ 24Vdc
Current (Holding)	210mA @ 12Vdc, 90mA @ 24Vdc
Holding Force	1000kg
Locking Mode	PTL & PTO
Dimensions (Mortice)	164 x 22mm
Bolt Length	12.7 x 16mm
Faceplate Size	10 x 25mm
Monitoring Contacts	Bolt & Door

#### **Ordering Information**

Product Description	Part Number
TB25 12-24VDC Fail Safe - Dropbolt	118251-000
TB25 12-24VDC Fail Secure - Dropbolt	118252-000
Accessories	
EB25 SS Short strike plate RH	228250-000
EB25 SS Long strike plate RH	228250-002
EB25 SS Housing	228250-003
EB25 SS Dress plate	228250-004
EB25 L Bracket With Magnets	228250-005
EB25 L Bracket Without Magnets	228250-006

#### **Specification Statement**

The bolt must be able to operate in horizontal and vertical orientations. The position of the bolt must be monitored as well as have an integrated reed switch for door position monitoring. The electronic functions must include: 8 x lock and unlock attempts, 8 second unlock delay, automatic relock after 8 seconds, power reduction circuitry to limit the holding current, and a one time thermal fuse cut-out in case of solenoid overheating. Locking function can be converted from Power to Lock (PTL) to Power to Open (PTO). The faceplate and strike plate must be finished in stainless steel.



## TB25KO Drop Bolt

#### **General Information**

The TB25KO drop bolt also represents true engineering innovation, design excellence and the superior quality customers have come to expect and demand from Trimec. Designed for use on swing-through, double action doors, these drop bolts are ideal for applications where an electric strike is impractical. The TB25KO offer a unique mechanical override with in integrated euro profile cylinder.

#### Features

- High Security. Bolt is deadlocked in the extended position
- Mechanical key override in the event of power failure. (Euro Profile Cylinder)
- Bolt position monitored
- Door position monitor with integrated magnet into the strike plate (no need to install a separate reed switch)
- Multiple Orientation, drop bolts will work horizontally or vertically
- Power to Lock/ Power to Open
- Continuously Rated Solenoid
- Tamper Proof. Lock cannot be defeated by slipping a metal object between lock and striker plate
- Intelligent Electronics. These intelligent bolts will attempt to re-close the bolt 8 times, allowing time for swing through doors to settle in the closed position
- Thermal Protection. In the event of solenoid overheat, a thermal fuse will operate, eliminating any fire risk

#### Applications

- Glass doors
- Timber doors



#### **Standards and Compliance**

BSI British Standard BSEN 50081-1 BSEN 50082-1



CE Approved

C-tick Certified

## TB25KO Drop Bolt





#### **TB25KO Drop Bolt Technical Information**

Voltage	12 to 24Vdc
Current (Start)	1100mA @ 12Vdc, 1000mA @ 24Vdc
Current (Holding)	210mA @ 12Vdc, 90mA @ 24Vdc
Holding Force	1000kg
Locking Mode	PTL & PTO
Dimensions (Mortice)	228 x 22mm
Bolt Length	12.7 x 16mm
Faceplate Size	280 x 25mm
Monitoring Contacts	Bolt, Door & Key

#### **Ordering Information**

Product Description	Part Number
TB25KO 12-24VDC Fail Safe Dropbolt	118251-500
TB25KO 12-24VDC Fail Secure Dropbolt	118252-500
Accessories	
EB25KO SS Housing for Bolt	228250-502
EB25KO SS Housing for Long Strike Plate	228250-503
EB25KO SS Dress Plate	228250-504

#### **Specification Statement**

The bolt must be able to operate in horizontal and vertical orientations. The position of the bolt must be monitored as well as have an integrated reed switch for door position monitoring. The electronic functions must include: 8 x lock and unlock attempts, 8 second unlock delay, automatic relock after 8 seconds, power reduction circuitry to limit the holding current, and a one time thermal fuse cut-out in case of solenoid overheating. The faceplate and strike plate must been finished in stainless steel. In the event of a power failure the lock must be mechanically overridden by means of a cylinder.



## TB32 Drop Bolt

#### **General Information**

The TB32 – 38 range of drop bolts are designed as a cost conscious alternative, and are only available in a power to lock configuration. There are no onboard electronics, unlock and relock time need to programmed from the access control system. The standard faceplate is 38mm wide but 32mm is available on request. These bolts are designed for use on swingthrough, double action doors and are ideal for applications where an electric strike is impractical.

#### Features

- High Security. Bolt is deadlocked in the extended position
- Bolt position monitored
- Door position monitor with integrated magnet into the strike plate (no need to install a separate reed switch)
- Multiple Orientation, drop bolts will work horizontally or vertically
- Power to Lock only
- Continuously Rated Solenoid
- Tamper Proof. Lock cannot be defeated by slipping a metal object between lock and striker plate
- Thermal Protection. In the event of solenoid overheat, a thermal fuse will operate, eliminating any fire risk

#### **Applications**

• Timber doors



Standards and Compliance	
<u>BSi</u>	British Standard BSEN 50081-1 BSEN 50082-1
(€	CE Approved
C	C-tick Certified

## TB32 Drop Bolt







#### TB32 Drop Bolt Technical Information

Voltage	12 to 24Vdc
Current (Start)	450mA @ 12Vdc, 300mA @ 24Vdc
Current (Holding)	370mA @ 12Vdc, 185mA @ 24Vdc
Holding Force	1000kg
Locking Mode	Fail Safe only
Dimensions (Mortice)	139 x 30mm
Bolt Length	12.7 x 16mm
Faceplate Size	195 x 38mm
Monitoring Contacts	Bolt & Door

#### **Specification Statement**

The bolt must be able to operate in horizontal and vertical orientations. The position of the bolt must be monitored as well as have an integrated reed switch for door position monitoring. The faceplate and strike plate must been finished in stainless steel.

#### **Ordering Information**

Product Description	Part Number
TB32 Fail Safe - 32mm F/P	118321-000
TB32-38 Fail Safe	118321-038



## TB38 Drop Bolt

#### **General Information**

The TB38 range of drop bolts are designed for use on swing-through, double action doors, these drop bolts are ideal for applications where an electric strike is impractical.

#### Features

- High Security. Bolt is deadlocked in the extended position
- Bolt position monitored
- Door position monitor with integrated magnet into the strike plate (no need to install a separate reed switch)
- Multiple Orientation, drop bolts will work horizontally or vertically
- Fail safe or Fail Secure
- Continuously Rated Solenoid
- Tamper Proof. Lock cannot be defeated by slipping a metal object between lock and striker plate
- Intelligent Electronics. These intelligent bolts will attempt to re-close the bolt 8 times, allowing time for swing through doors to settle in the closed position
- Thermal Protection. In the event of solenoid overheat, a thermal fuse will operate, eliminating any fire risk

#### **Applications**

- Glass doors
- Timber doors



Standards and Compliance		
BSI	British Standard BSEN 50081-1 BSEN 50082-1	
CE	CE Approved	
C	C-tick Certified	

## **TB38** Drop Bolt



#### **TB38 Drop Bolt Technical Information**

Voltage	12 to 24Vdc
Current (Start)	1400mA @ 12Vdc, 1100mA @ 24Vdc
Current (Holding)	260mA @ 12Vdc, 105mA @ 24Vdc
Holding Force	2000kg
Locking Mode	Fail Safe & Fail Secure
Dimensions (Mortice)	164 x 33mm
Bolt Length	14.3 x 14mm
Faceplate Size	202 x 38mm
Monitoring Contacts	Bolt & Door

#### **Ordering Information**

Product Description	Part Number
TB38 12-24VDC Fail Safe Dropbolt	118381-000
TB38 Fail Secure 12-24VDC - 38mm F/P	118382-000
Accessories	
EB38 SS Housing	228380-004
EB38 SS Dress plate	228380-005
EB38 SS L Brackets 2 - Magnets	228380-006

#### **Specification Statement**

The bolt must be able to operate in horizontal and vertical orientations. The position of the bolt must be monitored as well as have an integrated reed switch for door position monitoring. The electronic functions must include: 8 x lock and unlock attempts, 8 second unlock delay, automatic relock after 8 seconds, power reduction circuitry to limit the holding current, and a one time thermal fuse cut-out in case of solenoid overheating. Locking function can be converted from Power to Lock (PTL) to Power to Open (PTO). The faceplate and strike plate must been finished in stainless steel.



## ES6000 Hook Lock

#### **General Information**

ES6000 Hook Lock is suitable for swinging doors, sliding doors and is easily attached to wood or steel door frames. ES6000 is heavy duty designed with its high preload (side load) capability of up to 300 kg, high holding force of up to 680 kg and up to 4 hour fire rating. Both Power to Open and Power to Lock models are available.

The ES6000 is available in both recess and surface mounted versions.

The ES6000 recess mounted version is completed with elegant satin stainless steel faceplate. The surface mounted version is completed with a cast aluminium cover that can be supplied in a variety of colours to match existing door frames.

ES6000 can be mounted vertically and horizontally, with self-latching ability without power for fire applications.

#### Features

- Power to Open or Power to Lock versions available
- Side Load (Pre-Load) Capable: Operates freely with up to 300 kg of side pressure
- Self Latching: Will self latch without power for fire applications
- 680kg holding force
- Robust Construction: Stainless steel components used
- Low Profile: Will protrude only 40mm into door headroom
- Multi Voltage: Automatic selection 12 to 30Vdc with back EMF protection and reverse polarity protection
- Multi Orientation: Can be mounted vertically or horizontally
- Low Current Consumption
   12VDC- 250mA after 1 sec. (initial current 830mA)
   24VDC- 140mA after 1 sec.(initial current 530mA)
- Monitored: locked and unlocked
- Tested to the 300kg preload capability



#### **Applications:**

- Heavy duty applications
- Sliding and swing door applications
- High air pressure environments (High Pre Load rating)

#### **Standards and Compliance**

Successfully fire rated up to 2hrs on fire door assemblies in accordance with AS1905.1.2005 (Part 1: Fire resistant door sets).

CE Approved

Approved to UL1034 (highest level)

## ES6000 Hook Lock





#### ES6000 Hook Lock Technical Information

Voltage	Supply Voltage 12-30Vdc Ground (OV)
Current	12Vdc – 250 mA after 1 sec. (initial current 830 mA) 24Vdc – 140 mA after 1 sec. (initial current 530 mA)
Monitoring	Door locked (Solenoid) – Door Closed (Latch)
Strength	680kg static strength rating 70 foot-lbs. dynamic strength rating
Endurance	Internal Testing achieved: 2,000,000 cycles of operation
Pre-Load	300kg pre-load capability
Environment	Operational temperature range: -20°C to $+$ 60°C
Lock Body	Cast Aluminium Construction
Lock Body	Solid Stainless Steel Construction
Lock Bolt	Solid Stainless Steel

#### **Specification Statement**

This lock must be able to operate with up to 300kg of preload pressure, with a holding force of 680kg. The lock must be multi voltage selection 12 - 30 Volts with back EMF protection for reverse polarity. Lock can be mounted both horizontally or vertically. The lock need to be subjected to vigorous testing and a minimum of 2,000,000 cycles need to be achieved.

#### **Ordering Information**

Product Description	Part Number
ES6001SS Mortice, Hook Lock Monitored, 12 - 24V Fail Safe SS Faceplate (Recessed)	116001-000
ES6001SIL Surface, Hook Lock Monitored, 12 - 24V Fail Safe Silver Cover	116001-010
ES6002SS Mortice, Hook Lock Monitored, 12 - 24V Fail Secure SS Faceplate (Recessed)	116002-000
ES6002SIL Surface, Hook Lock Monitored, 12 - 24V Fail Secure Silver Cover	116002-010
Accessories	
Spare Cover for Hook Kock, Silver	206000-010
ES6000 ROLLER STRIKE ASSEMBLY	220600-503



## ES8000 V-Lock

#### **General Information**

The ES8000, also known as the V-lock is a high torque motorised bolt that moves from the vertical position to the horizontal state when locked. The bolt moves into the V shaped strike plate pulling the door aligned with the lock. The high torque motorised bolt can be concealed from view or surface mounted and has the worlds first fail-open motor locking mechanism.

Slim design with classic satin stainless steel faceplate, and significant 7mm overall (+/- 3.5mm) door misalignment tolerance make ES8000 a product with great aesthetic appearance as well as easy installation.

#### Features

- SIDE LOAD PRE LOAD Capable Lock will unlock with up to 15kg of side pressure, when wired in 3 wire mode.
   (1 x Permanent Power, (positive 12-24Vdc) wire. Negative (0 volt return) wire, and 1 x Switching input (positive 12-24Vdc) wire
- Door misalignment of up to 3.5mm +/-
- Power to Lock (Fail Safe) / Power to Open (Fail Secure) field configurable
- HIGH TORQUE Motorised locking and unlocking (3 wire mode)
- High Speed Operation. Unlocks in less than 1 second
- Surface Mount Accessory Kit. Ideal for 180° swing through glass door applications
- Multiple Orientation Interior Doors Can be mounted vertically or horizontally (For exterior doors due to possible water ingress the ES8000 must be mounted horizontally)

#### **Applications**

- Misaligned doors
- Timber doors
- Glass doors



#### Standards and Compliance

SCEC Endorsed (Intruder Resistant Bracket Required)



**CE** Approved

## ES8000 V-Lock



#### ES8000 V-Lock Technical Information

Voltage	12 to 24Vdc, Voltage Tolerance 12V (+15% - 0%) 24V(+/- 15%)
Current	Minimum 1 Amp Regulated Supply
Monitoring	COM, NO, NC Voltage free changeover contacts rated at 48 dc/100mA
Security	Passed S3 (AS4145.2 -1993)
Strength	Maximum 1000kg (with supported strike plate)
Side Load	Side Load rated: Motorised Unlocking – 15kg max at bolt Fail Safe Unlocking – 3kg max at bolt
Endurance	300,000 operations
Environment	Operational temperature range -20°C to + 60°C
Lock Body	Stainless Steel Lock Body and Faceplate
Bolt	11mm diameter, 20.5mm projection

#### **Ordering Information**

Product Description	Part Number
ES8001 V-Lock 12-24vdc Fail Safe 30mm F/P	118001-010
ES8002 V-Lock 12-24vdc Fail Secure 30mm F/P	118002-010
ES8001 V-Lock 12-24vdc Fail Safe 30mm F/P - Scec Endorsed	118001-100
ES8002 V-Lock 12-24vdc Fail Secure 30mm F/P - Scec Endorsed	118002-100
Accessories	210000 000
ES8000 V-Lock Glass door housing (Incl dress plate & fixing tape)	218000-000
ES8000 V-Lock strike plate with magnet (spare part)	218000-003

Wiring below shows lock in locked position

Power To Lock (PTL) Wiring Connections
BLACK - 0 volts d.c. BLUE - Access Control (PTL) RED - Positive Continuous Supply PURPLE - (COM) WHITE - (NO) → Bolt Position ORANGE - (NC)
Power To Open (PTO) Wiring Connections
BLACK - 0 volts d.c. BLUE - Access Control (PTO) RED - Positive Continuous Supply PURPLE - (COM) WHITE - (NO) ORANGE - (NC) Bolt Position Monitor
Power To Lock 2 Wire Control (NOT RECOMMENDED)
BLACK - 0 volts d.c. BLUE RED
PURPLE - (COM) WHITE - (NO) Bolt Position ORANGE - (NC) Monitor

#### **Specification Statement**

The lock must be a high torque motorised bolt with Preload tolerance. The strike plate must be shaped in a V format to accommodate for misaligned doors. Lock will unlock with up to 15kg of side pressure and will be powered with 12-24v and draw no more than 1000mA. The lock must be configurable for Power to Lock (Fail Safe) or Power to Open (Fail Secure). The lock must be triggered with a magnet positioned in strike plate, and be monitored for locked unlocked and door position.



## ES8000 Glass Door Bracket

#### **General Description**

The ES8000 glass door bracket is the ideal solution when it comes to 180° swing through doors or double action glass doors. Until now we had to rely on other products for these applications. This bracket works in conjunction with the ES8000, and is not limited to glass thickness. As we know there are many factors that cause side load/pressure, the ES8000 resolves this problem and still offer a secure and reliable locking solution that is aesthetically appealing for glass doors.

The ES8000 Glass door bracket is fixed to the glass by means of 3M self adhesive tape. This type of fixing gives a great aesthetic appearance as well as easy installation.

**Note**: Two brackets are required if there is a glass header, also it's important to note that the bracket/s should always be installed at the secure side of the door.

#### NOTES ON THE 3M SELF ADHESIVE TAPE

As per the 3M published data and given the surface area of the V-Lock glass door housing (around 20 sqin), this equates to around 900kg holding force under laboratory conditions. The actual shatter point of glass varies from door to door depending on the condition of the glass, (scratches, chips etc). But any attempt to leverage a glass door beyond 500kg will more than likely shatter it.

#### Features

- Self adhesive holding force 900kg
- Includes dress plate for opposite side of door

#### **Applications**

- Frameless glass doors with Solid header frame
- Frameless glass doors with frameless glass header (two brackets required)
- 90° and 180° single and double swing glass doors
- Other surface applications for timber doors.





#### **Ordering Information**



ES8000 V-Lock Glass door Housing (incl Dress plate and 3M fixing tape)

218000-000



# Don't Compromise.



ES8000 V-Lock with Strike Plate

The ES8000 V-Lock is a high torque motorised bolt which unlocks in less than one second.

In addition to the overall misalignment tolerance of 7mm, the V-Lock makes an ideal solution for both single and 180° double action doors, owing to its slim design, rigid construction and an impressive aesthetic appearance.

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## ES8200 Technilock

#### **General Information**

ES8200 Technilock is a high security locking solution with comprehensive resistance against all types of attack and manipulation. Originally designed and developed for custodial purposes, the Technilock is in use today in Government Institutions, Banks, Embassies and Jewellers.

ES8200 is available in 30mm and 60mm backset, in both Power to Lock or Power to Open configuration. Key override monitoring version is also available upon special request.

#### Features

- Side load Pre Load capable Bolt will release with up to 70kg of side pressure – ideal for use on doors with seals or doors that are subjected to high wind load or air-conditioning pressures
- Extreme holding force Will withstand more than 2500kgs.
- Power to Lock and Power to Open (must be specified). Versions available on request. The bolt is not interchangeable in the field and configuration must be specified when ordering
- High speed operation Locks in less than 1 second
- Multiple orientations –
   Can be mounted horizontally or Vertically
- Comprehensive monitoring Bolt Locked, Door Closed, Optional Key-Override monitoring

#### Applications

- High security locking
- Government applications
- Custodial applications
- Banking and security applications



#### Standards and Compliance

SCEC Approved (Secure Area)



Successfully fire rated up to 4hrs on fire door assemblies in accordance with AS1905.1.2005 (Part 1: Fire resistant door sets).

## ES8200 Technilock

### Dimensions –

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Α	30
В	47.5
С	25
D	101
Н	8





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#### ES8200 Technilock Technical Information

3 wire control – 24 Vdc regulated supply only
Start Current 4.5 Amp (24Vdc) for ½ second Holding Current 500mA (24Vdc).
Bolt Position 25mA (30Vdc) NC – Door Position 25mA (30Vdc) NC $$
In excess of 2500kg Holding Force
Will open with 70kg of Side Pressure (Pre-Load)
Dead Bolt throw of 20mm
Maximum door gap = 5.5mm
Operational temperature range: -20°C to + 80°C
Solid Stainless Steel Construction
Solid Stainless Steel

#### **Specification Statement**

The lock must be capable of side pressure and with an overall holding force not less than 2500kgs. Also with side load pressure under pre Load condition up to 70kg. The lock could be mounted both horizontally or vertically. It also must be monitored in the following ways; bolt locked, door closed, with an optional Key-Override.

#### **Ordering Information**

Product Description	Part Number
ES8203 24Vdc Technilock Fail safe 30mm	118203-010
ES8203 24Vdc Technilock Fail safe 60mm	118203-011
ES8204 24Vdc Technilock Fail secure 30mm	118204-010
ES8204 24Vdc Technilock Fail secure 60mm	118204-011
Accessories Optional security escutcheon for ES8200 High Security Bolt	228200-000





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