

## EM

# Premium Electromagnetic Locks

Premium  
Electromagnetic  
Locks



# Contents

<b>4</b>	<b>Introduction</b>
<b>6</b>	<b>Premium magnetic locks</b>
6	EM 1800 AH
7	EM 1800 AM
8	EM 3000-GL AH
10	EM 3000-T AM
11	EM 5300-GL AH
12	EM 5300-2GL AH
13	Accessories
<b>18</b>	<b>Weather-resistant Locks</b>
<b>20</b>	<b>Shear Locks</b>
<b>22</b>	<b>Hybrid Locks</b>

# EM – Premium Electromagnetic Locks

EM premium electromagnetic locks range offers a wide range of locking solution for variety of door situations. All EM range products are using materials in premium quality, which enables excellent performance against remanence and corrosion.

**Before installing electro-magnets on fire doors please check with the fire door manufacturer to ensure compliance**

## Customer Benefits

- Easy Installation
- Reliable holding strength
- No residual magnetism
- 1.000.000 test cycles
- High corrosion resistance: grade 3 according to EN 1670 (salt spray tested to 96 hours)
- 10-year warranty for premium standard locks and weather-resistant locks; 2-year warranty for Shear locks and hybrid locks.
- RoHS and REACH compliant, CE marked

Type	Features					Door type						Order No.
	Holding force class	Installation	Dual voltage 12/24 V DC	green/red LED	Lock status sensor	Single/Double-leaf doors	Outswing doors	Inswing doors	Glass doors	Non-drill through	Armature plate holder	
<b>Premium Standard Locks</b>												
EM 1800 AH	1800 N	Surface	●	–	●	Single	–	●	●			19860000
EM 1800 AM	1800 N	Mortise	●	–	●	Single	–	–	–	–		19860001
EM 3000-GL AH	3000 N	Surface	●	●	●	Single	●	●	●	●		19860103
EM 3000-T AM	2500 N	Mortise	●	–	●	Single	–	–	–	–		19860110
EM 5300-GL AH	5300 N	Surface	●	●	●	Single	●	●	–	●		19860206
EM 5300-2 GL AH	5300 N x2	Surface	●	●	●	Double	●	●	–	●		19860203
<b>Weather-resistant Locks</b>												
EM 7500-F AH	7500 N	Surface	●	–	●	Single	–	–	–	–		19860300
EM 7500-S AH	7500 N	Surface	●	–	●	Single	–	–	–	–		19860301
<b>Shear Locks</b>												
EM 7500-D AM	7500 N	Mortise	●	–	●	Single	–	–	–	–		19860320
EM 15000-D AM	15000 N	Mortise	●	–	●	Single	–	–	–	–		19860420
<b>Hybrid Locks</b>												
EM 6900-GL AH B	15000 N	Surface	●	●	●	Single	–	–	–	–		19860241
EM 6900 AM B	15000 N	Mortise	●	–	●	Single	–	–	–	–		19860242

● yes – no

Note: The holding force on the door is dependent on the specific type of installation.

**Article designations, abbreviations**

The article designation indicates the holding force and the characteristics of the electromagnetic locks, e.g. EM 1800 AH = 1800 N holding force with feedback function (A), designed for surfacemounting (H).

**A = Lock Status Sensor**

**B = Buzzer**

A built-in buzzer generates audible alarm.

**D = Shear lock magnets**

The special feature of these magnets lies in their electro-mechanical retention system (shear lock). Because of their design, they are also suitable for double-action doors.

**F = Front mounted**

**GL = Electromagnetic lock with LED light panel**

A Mega LED indicates the status.

**H = Surface-mounted**

**M = Mortise-mounted**

**S = Side-mounted**

Instead of being mounted on the front face, the electromagnetic lock is located at 90°- e.g. for use on sliding doors.

**T = Slender design**

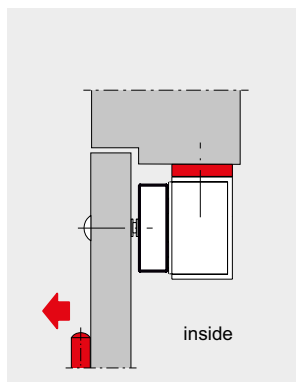
Because of its particularly narrow width of 35.5 mm, the electromagnetic lock can also be installed in slender narrow-stile profiles.

**Early Warning**

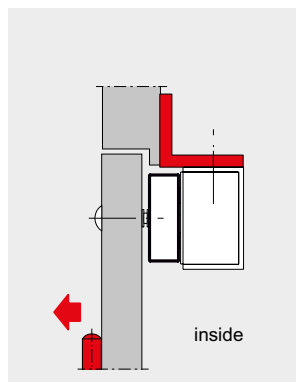
A maglock fitted with pressure sensor allows the unit to send an alarm before the access would be forced without authorization. This locking model warns before the access is breached, which generates a unique advantage for door security.

**2 = double lock**

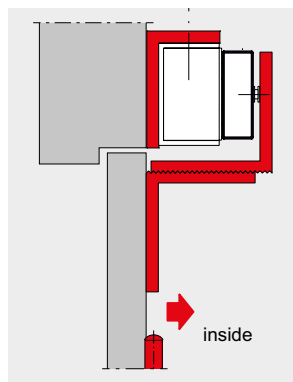
**Regular installation**



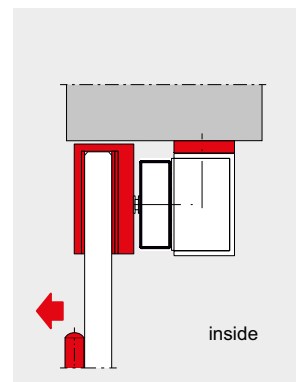
**L-bracket for narrow door frame**



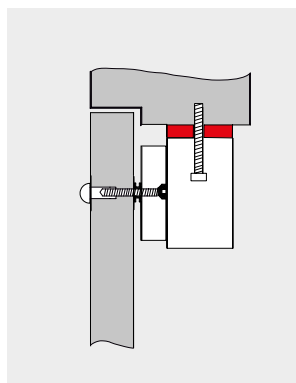
**L+Z bracket for inswing doors**



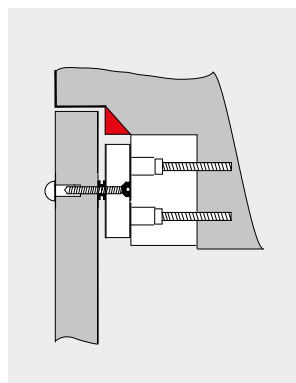
**U-bracket for frameless glass doors**



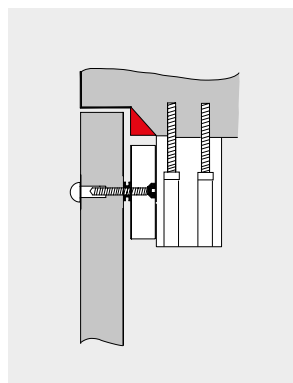
**H version**



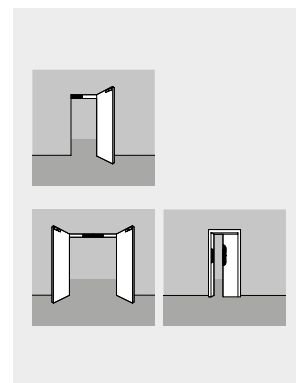
**F version**



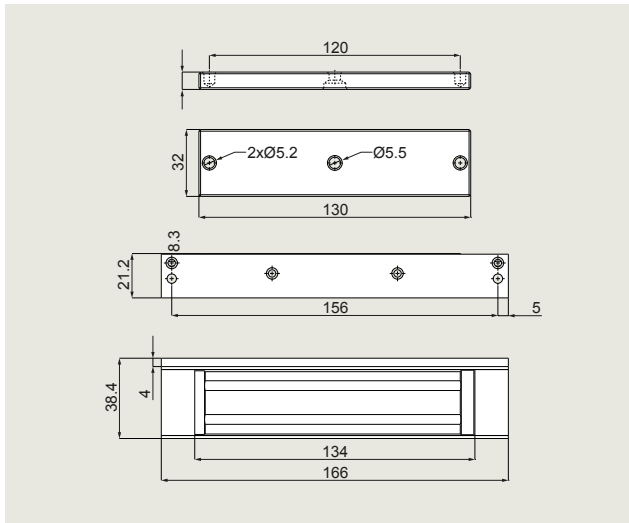
**S version**



**M version**



# EM 1800 AH



### Technical data

Holding force	1800 N
Installation	Surface-mounted
Magnet housing dimensions	166L x 39W x 21H mm
Armature plate dimensions	130L x 31W x 8H mm
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	370/ 185 mA
Lock status sensor	yes
LED indication LSS	no
Operation temperature	-40 to 60°C
IP class	20
Certification	RoHS, REACH, CE
Warranty	10 years
Applicaton	Interior (light internal doors, glass doors, cabinets, drawers, etc.)

### Specification text

### Order No.



#### EM 1800 AH

Single surface-mounted electromagnetic lock with up to 1800 N holding force, with lock status sensor, anodized aluminium finish

19860000



#### AMZL 1800

L+Z bracket for EM 1800 AH

19860090



#### UBG-10 1800

U-formed glass door bracket for fixing armature plate on 10 mm thick toughened glass doors, suitable for EM 1800 AH

19860092

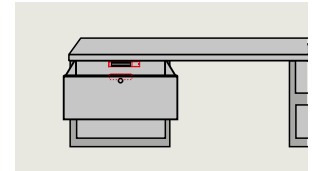
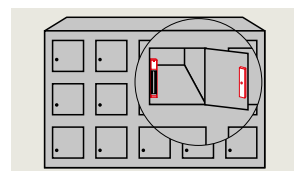
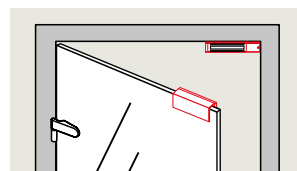
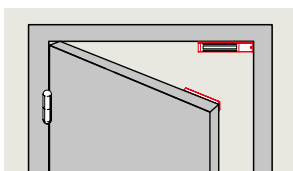


#### UBG-12 1800

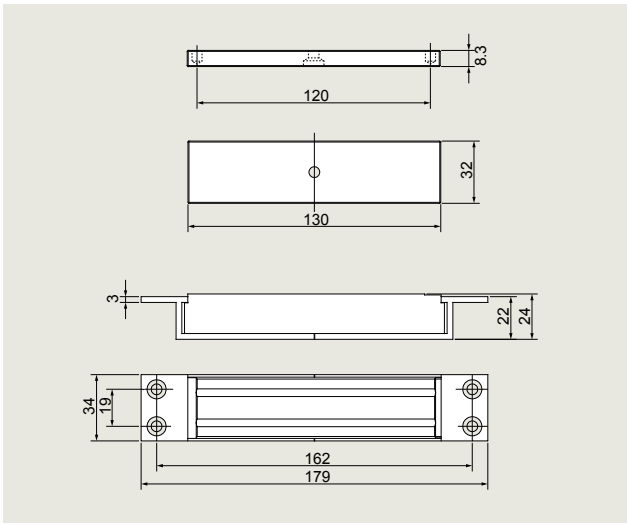
U-formed glass door bracket for fixing armature plate on 12 mm thick toughened glass doors, suitable for EM 1800 AH

19860093

### Typical Application



# EM 1800 AM



### Technical data

Holding force	1800 N
Installation	Mortise-mounted
Magnet housing dimensions	179L x 34W x 24H mm
Armature plate dimensions	130L x 32W x 9H mm
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	370/ 185 mA
Lock status sensor	yes
LED indication LSS	no
Operation temperature	-40 to 60°C
IP class	20
Certification	RoHS, CE
Warranty	10 years
Applicaton	Interior (light internal doors, cabinets, drawers, etc.)

### Specification text

### Order No.

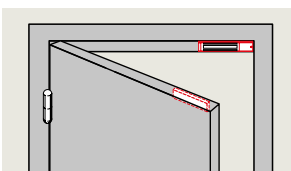


### EM 1800 AM

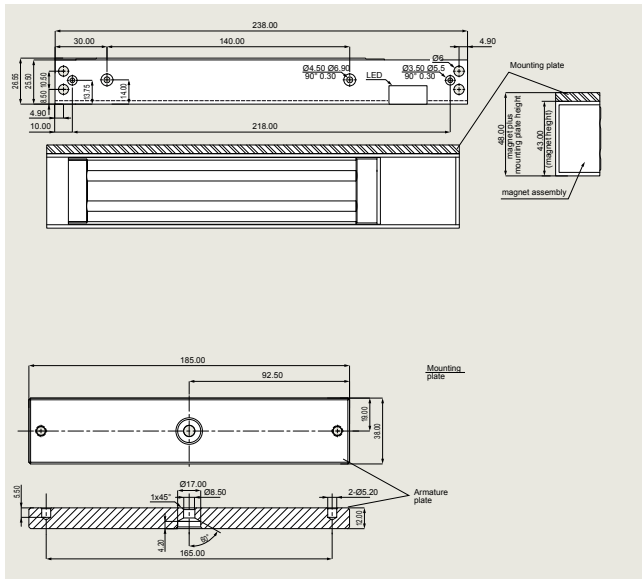
Single mortise-mounted electromagnetic lock with up to 1800 N holding force, with lock status sensor

**19860001**

### Typical Application



# EM 3000-GL AH



### Technical data

Holding force	3000 N
Installation	Surface-mounted
Magnet housing dimensions	238L x 48W x 26,55H mm
Armature plate dimensions	185L x 38W x 12H mm
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	480/240 mA
Lock status sensor	yes
LED indication LSS	yes
Operation temperature	-40 to 60°C
IP class	IP 43 (installed)
Certification	RoHS, REACH, CE
Warranty	10 years
Application	Interior (sliding doors, internal swing doors with access control equipment which does not have to be resistant to heavy attacks)

### Specification text

### Order No.



#### EM 3000-GL AH

Single surface-mounted electromagnetic lock with up to 3000 N holding force, with lock status sensor and mega-LED status indicator, anodized aluminium finish

**19860103**



#### AML 3000-GL

L bracket for EM 3000-GL AH

**19860185**



#### AMZL 3000-GL

L+Z bracket for EM 3000-GL AH

**19860186**

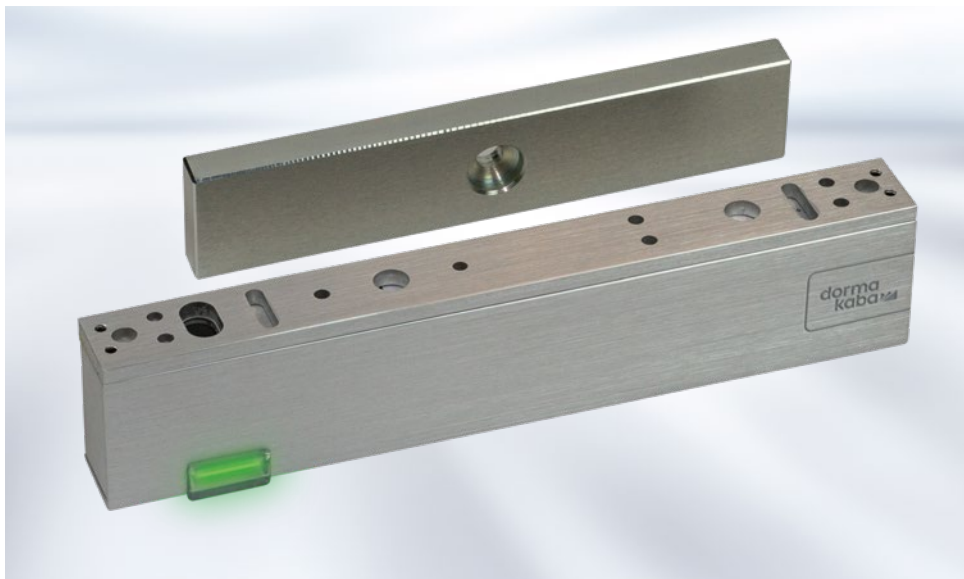




#### AMF 3000

Armature plate holder for EM 3000

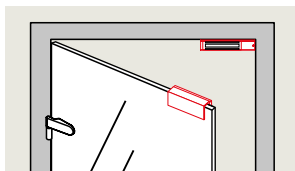
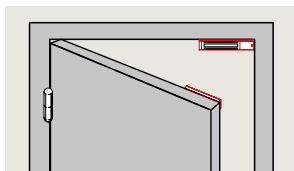
**19860192**



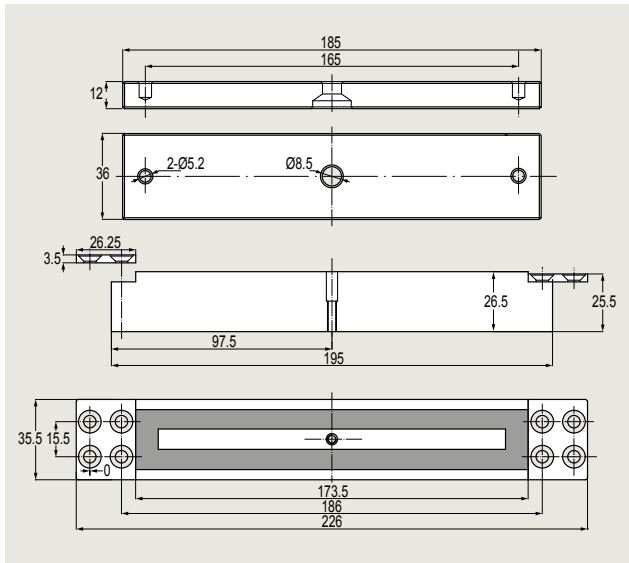


	Specification text	Order No.
	<p><b>UBG-10 3000</b> U-formed glass door bracket for fixing armature plate on 10 mm thick glass doors, suitable for EM 3000</p>	<b>19860194</b>
	<p><b>UBG-12 3000</b> U-formed glass door bracket for fixing armature plate on 12 mm thick glass doors, suitable for EM 3000</p>	<b>19860195</b>

**Typical Application**



# EM 3000-T AM



### Technical data

Holding force	2500 N
Installation	Mortise-mounted
Magnet housing dimensions	195L x 35,5W x 25,5H mm
Armature plate dimensions	185L x 36W x 12H mm
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	480/240 mA
Lock status sensor	yes
LED indication LSS	no
Operation temperature	-40 to 60°C
IP class	IP 43 installed
Certification	RoHS, REACH, REACH, CE
Warranty	10 years
Application	Interior sliding doors, internal aluminium profile doors which does not have to be resistant to heavy attacks)

### Specification text

### Order No.

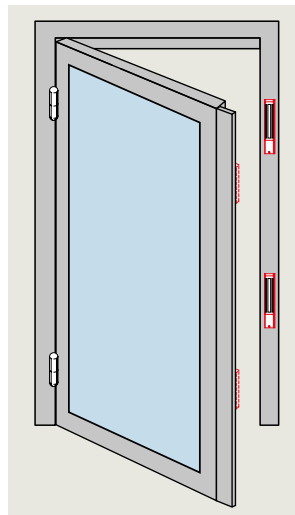
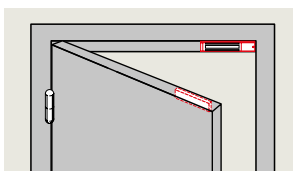


### EM 3000-T AM

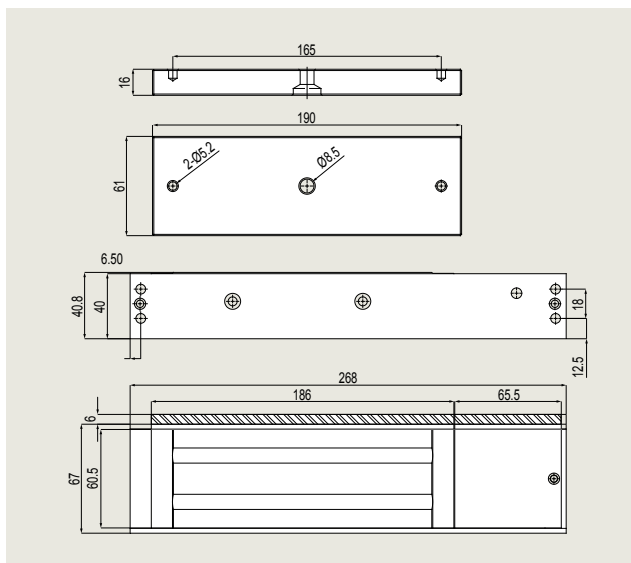
Single mortise-mounted electromagnetic lock with up to 2500 N holding force, with lock status sensor, with slender design

**19860110**

### Typical Application



# EM 5300-GL AH



### Technical data

Holding force	5300 N
Installation	Surface-mounted
Magnet housing dimensions	268L x 73W x 40H mm
Armature plate dimensions	190L x 61W x 16H mm
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	480/240 mA
Lock status sensor	yes
LED indication LSS	yes
Operation temperature	-40 to 60°C
IP class	IP 43 installed
Certification	RoHS, REACH, CE
Warranty	10 years
Application	Interior (entry doors fitted with access control systems)

### Specification text

### Order No.



#### EM 5300-GL AH

Single surface-mounted electromagnetic lock with up to 5300 N holding force, with lock status sensor and mega-LED indicator, anodized aluminium finish

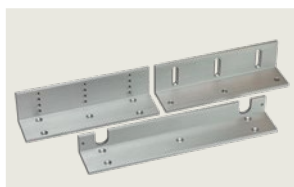
**19860206**



#### AML 5300-GL

L-bracket for EM 5300-GL AH and EM 5300-2 AH  
Two L-brackets are required for EM 5300-2 AH

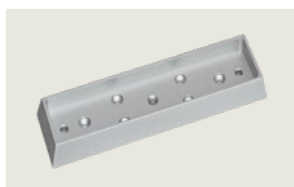
**19860291**



#### AMZL 5300-GL

L+Z bracket for EM 5300-GL AH and EM 5300-2 AH  
Two L+Z brackets are required for EM 5300-2 AH

**19860290**

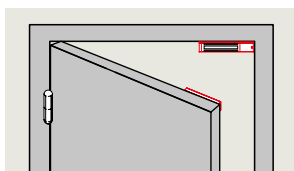


#### AMF 5300

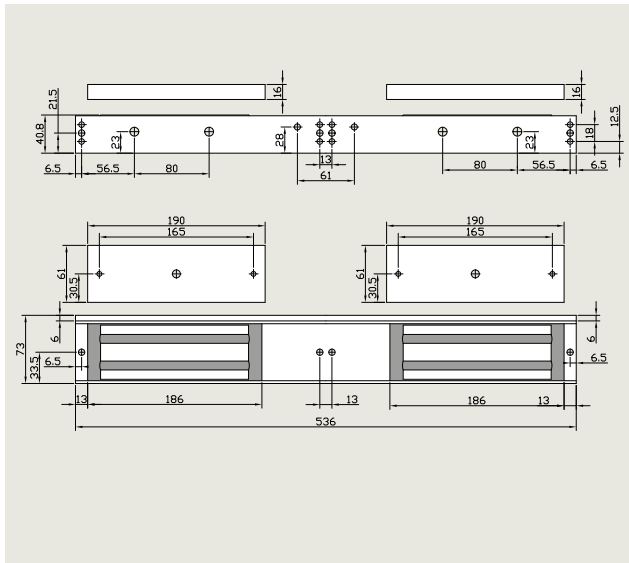
Armature plate holder for EM 5300-GL AH and EM 5300-2 AH  
Two armature plate holder are required for EM 5300-2 AH

**19860292**

### Typical Application



# EM 5300-2 GL AH



### Technical data

Holding force	5300 N x 2 mag
Installation	Surface-mounted
Magnet housing dimensions	536L x 73W x 41H mm
Armature plate dimensions	190L x 61W x 16H mm x 2 pcs.
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	480 mA/ 240 mA (each mag)
Lock status sensor	yes (each mag)
LED indication LSS	yes (each mag)
Operation temperature	-40 to 60°C
IP class	IP 43 installed
Certification	RoHS, REACH, CE
Warranty	10 years
Application	Interior for double-leaf high resistant swing doors, entry doors fitted with high security access control systems)

### Specification text

### Order No.



#### EM 5300-2 GL AH

Double surface-mounted electromagnetic lock with up to 5300 N holding force per mag, for double-leaf door, with lock status sensor and LED indicator, anodized aluminium finish

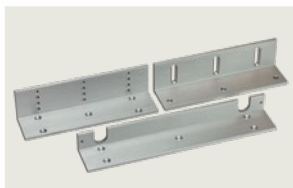
**19860203**



#### AML 5300-GL

L-bracket for EM 5300-GL AH and EM 5300-2 AH  
Two L-brackets are required for EM 5300-2 AH

**19860291**



#### AMZL 5300-GL

L+Z bracket for EM 5300-GL AH and EM 5300-2 AH  
Two L+Z brackets are required for EM 5300-2 AH

**19860290**

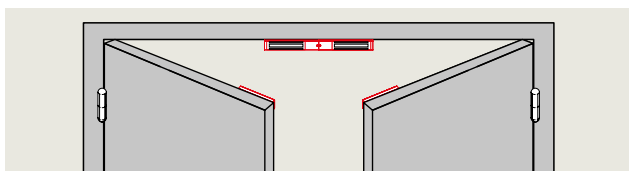


#### AMF 5300

Armature plate holder for EM 5300-GL AH and EM 5300-2 AH  
Two armature plate holder are required for EM 5300-2 AH

**19860292**

### Typical Application

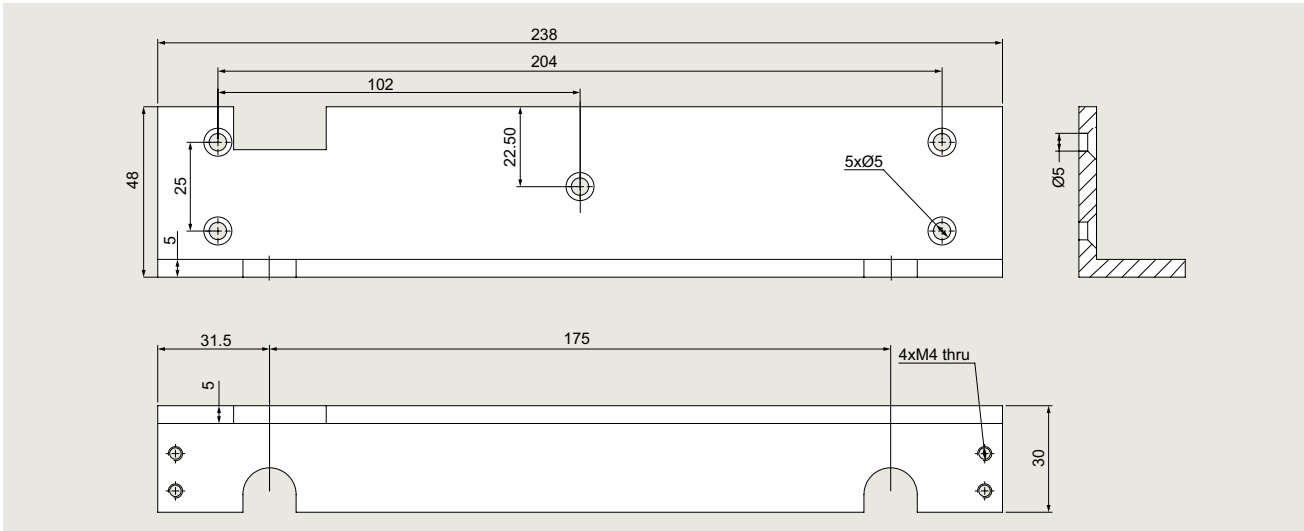


# Accessories for premium standard locks

## AML – L brackets

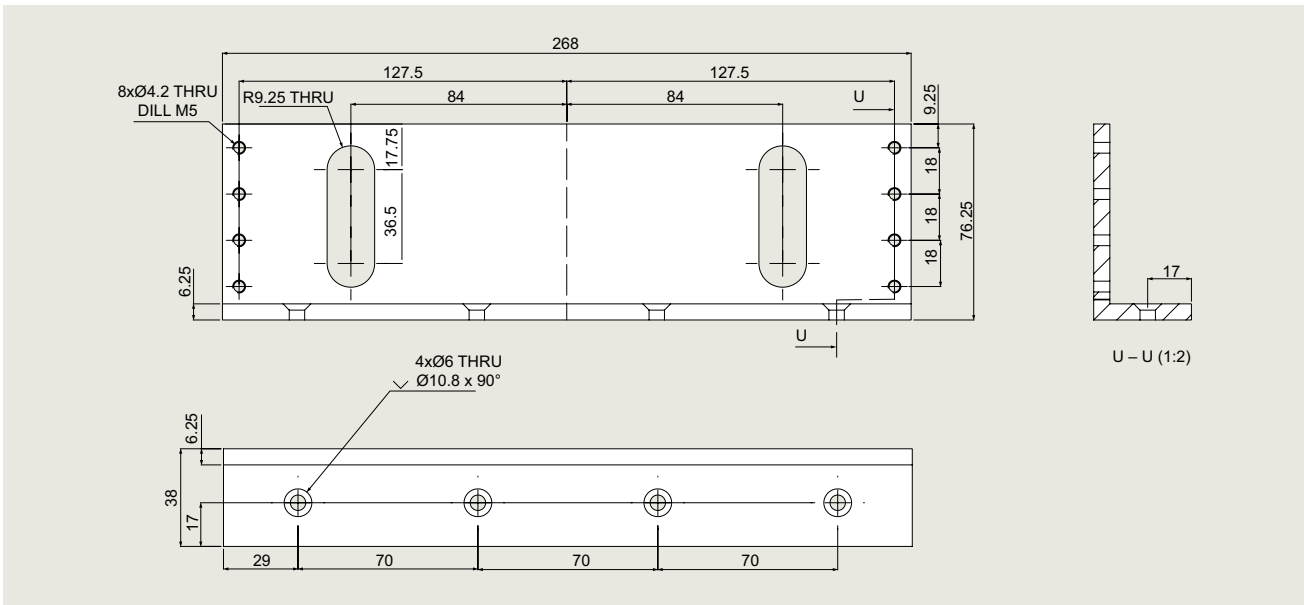
AML 3000-GL

(Order No. 19860185)



AML 5300-GL

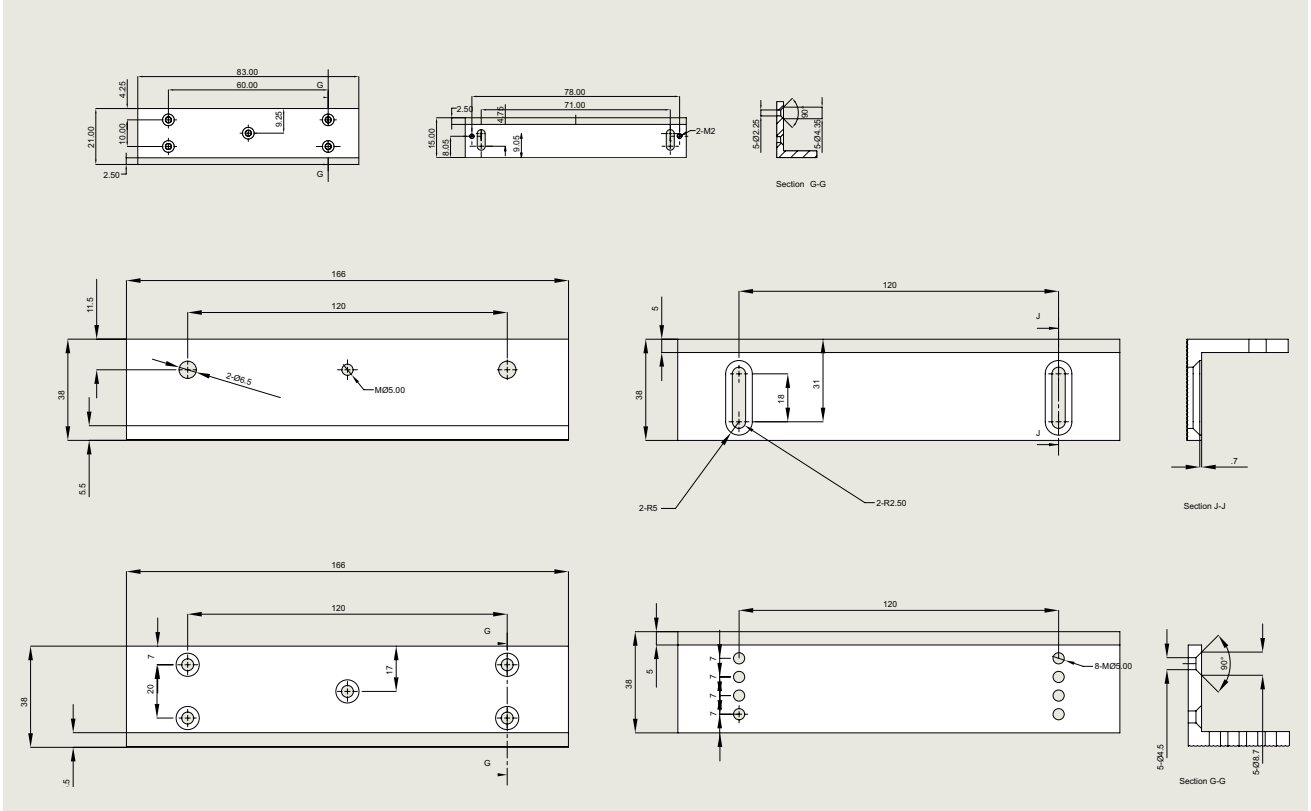
(Order No. 19860291)



### AMZL – L+Z brackets

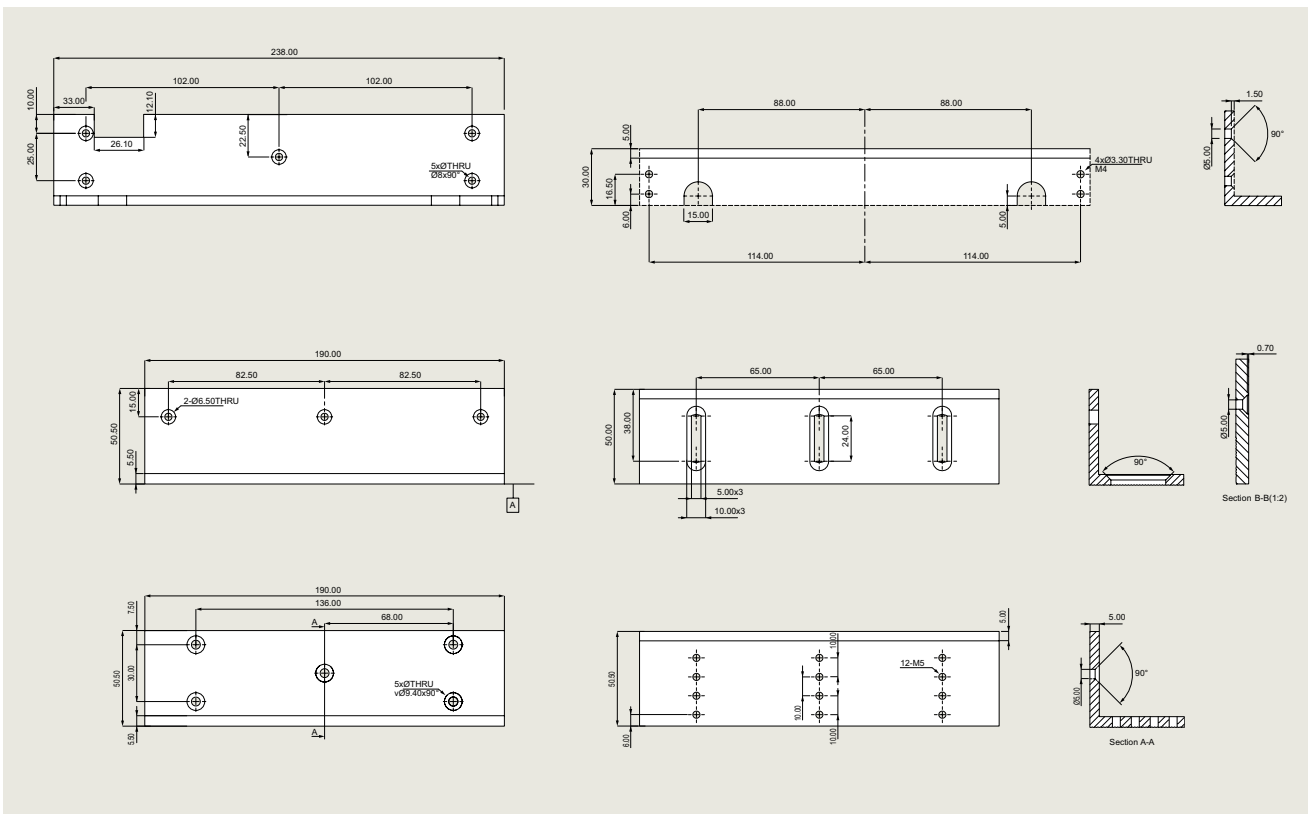
#### AMZL 1800

(Order No. 19860090)



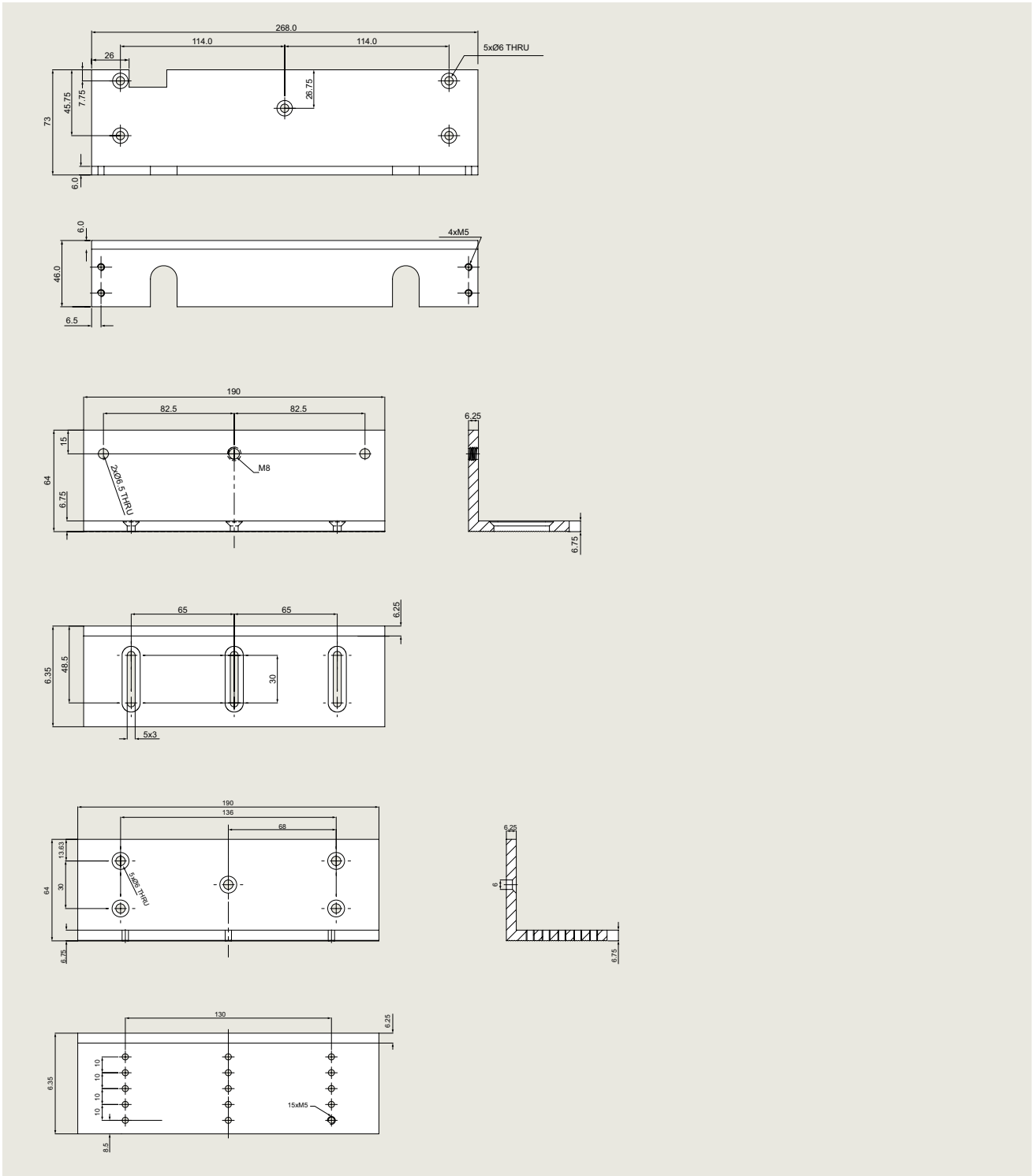
#### AMZL 3000-GL

(Order No. 19860186)



AMZL 5300-GL

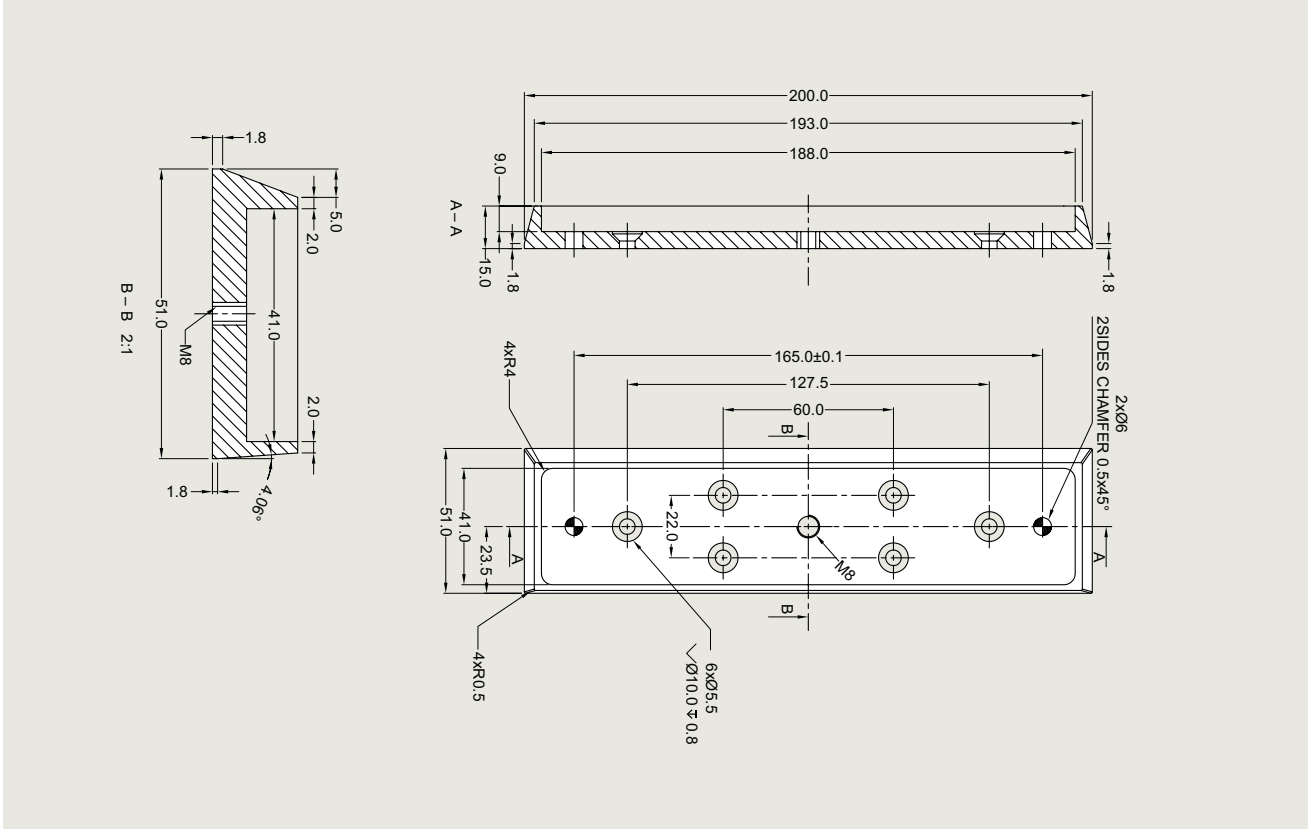
(Order No. 19860290)



**AMF – Armature plate holder**

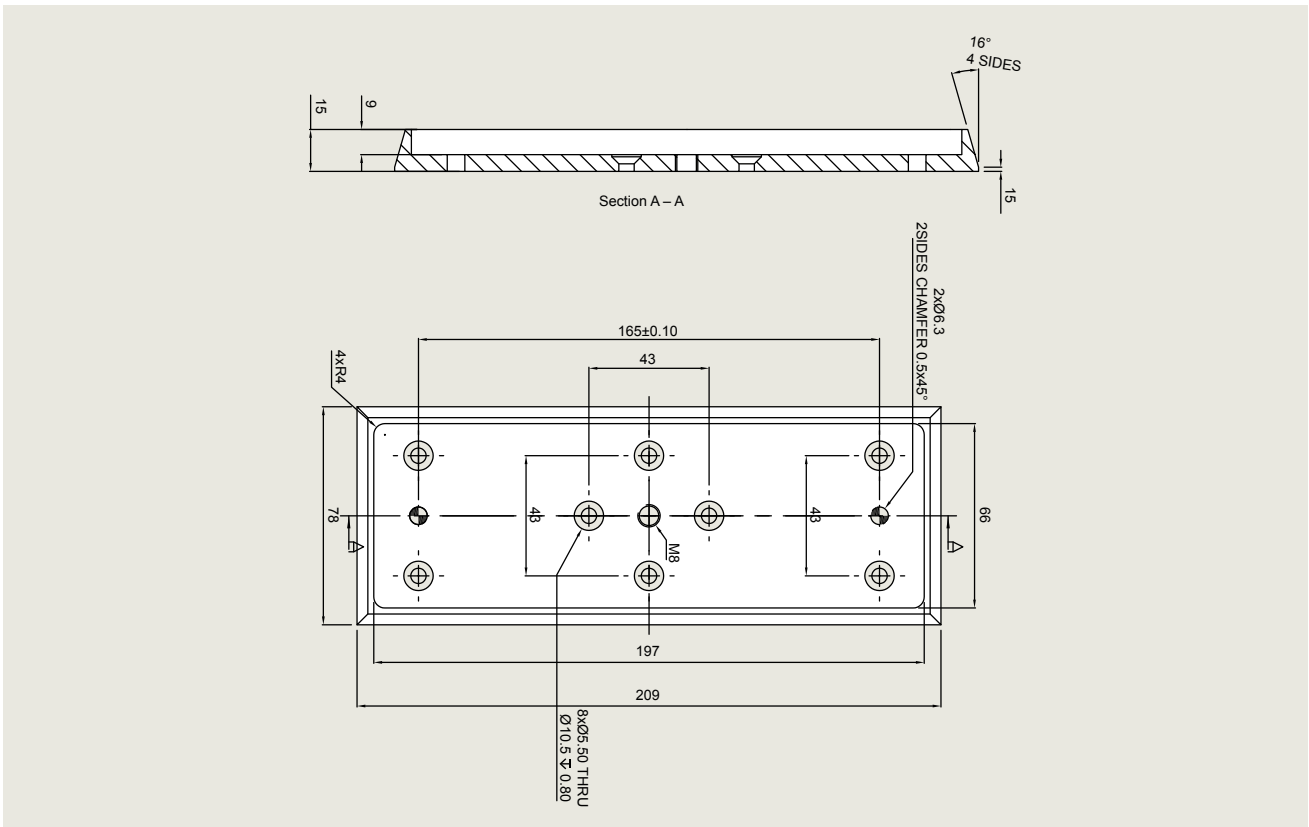
**AMF 3000**

**(Bestellnummer: 19860192)**



**AMF 5300**

**(Bestellnummer: 19860292)**

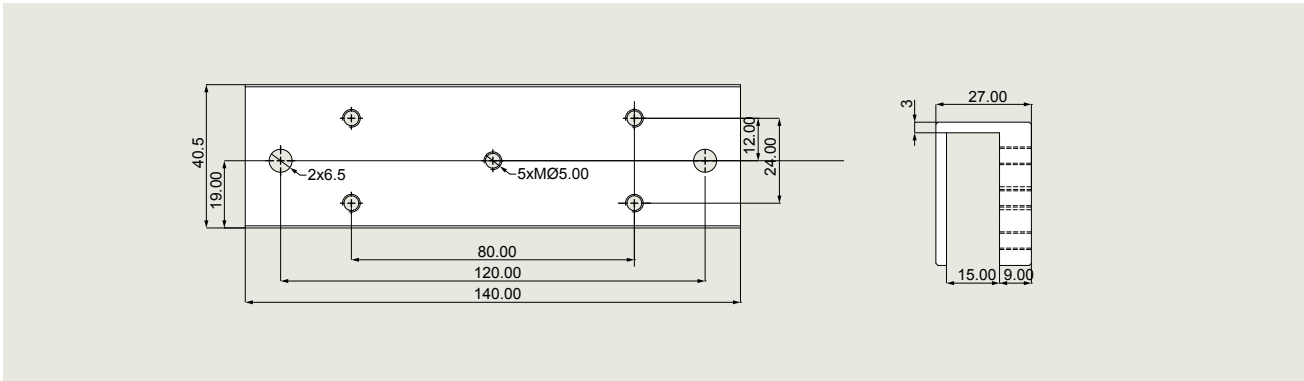




**UBG – Glass door bracket**

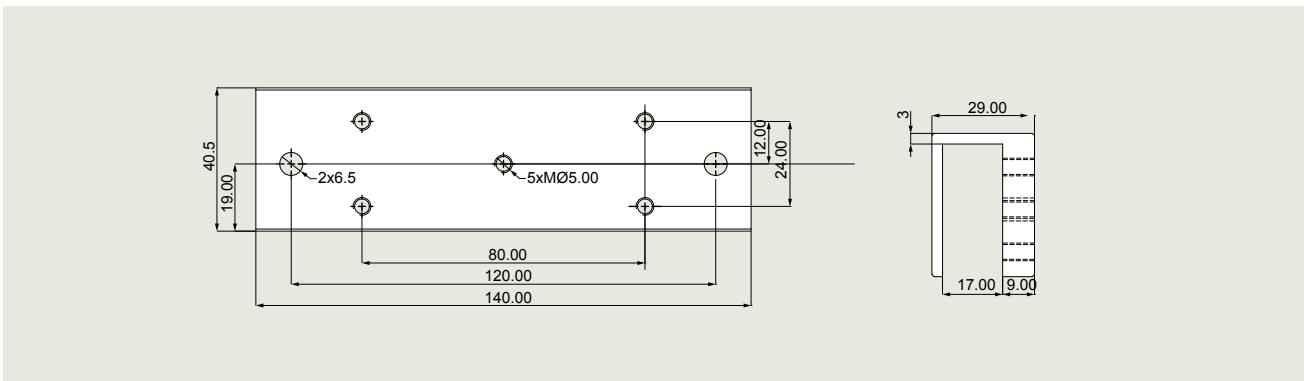
**UBG-10 1800**

**(Order No. 19860092)**



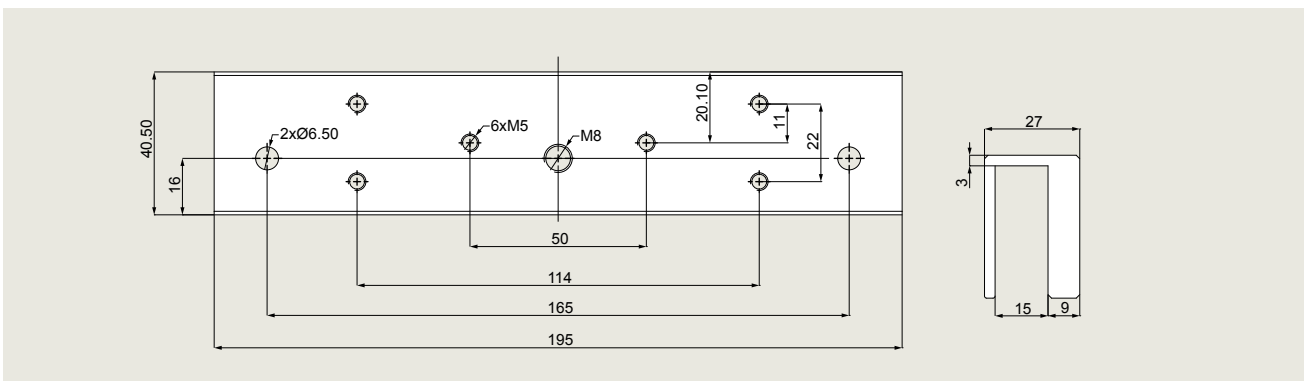
**UBG-12 1800**

**(Order No. 19860093)**



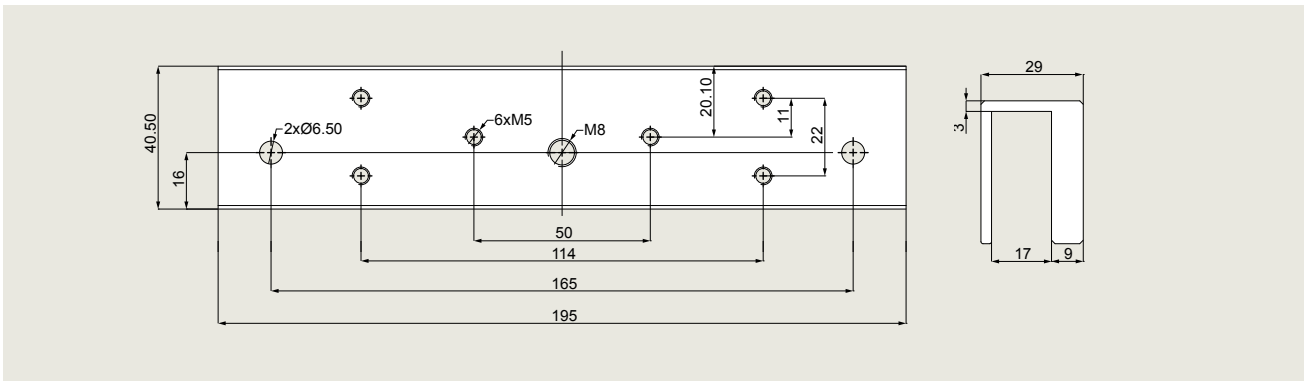
**UBG-10 3000**

**(Order No. 19860194)**



**UBG-12 3000**

**(Order No. 19860195)**



# Weather-resistant Locks

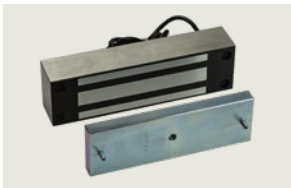
- All-in-one lock with large holding force
- Robust and anti-corrosion with completely sealed stainless steel housing
- For external applications and hostile environment (IP 66)
- Easy installation

## Technical data

Holding force	7500 N
Installation	Surface-mounted (front/side)
Magnet housing dimensions	225L x 63W x 44H mm
Armature plate dimensions	190L x 61W x 16H mm
Operation principle	Fail-safe (power to lock)
Power supply	12/ 24 V DC
Current	480 mA/ 240 mA
Lock status sensor	yes
LED indication LSS	no
Operation temperature	-40 to 60°C
IP class	66
Certification	RoHS, REACH, CE
Warranty	10 years
Applicaton	Exterior doors or gates, doors in hostile environment

## Specification text

## Order No.



### EM 7500-F AH

Weather-resistant electromagnetic lock with up to 7500 N holding force, with lock status sensor, stainless steel housing, front-mounted for swing doors

**19860300**

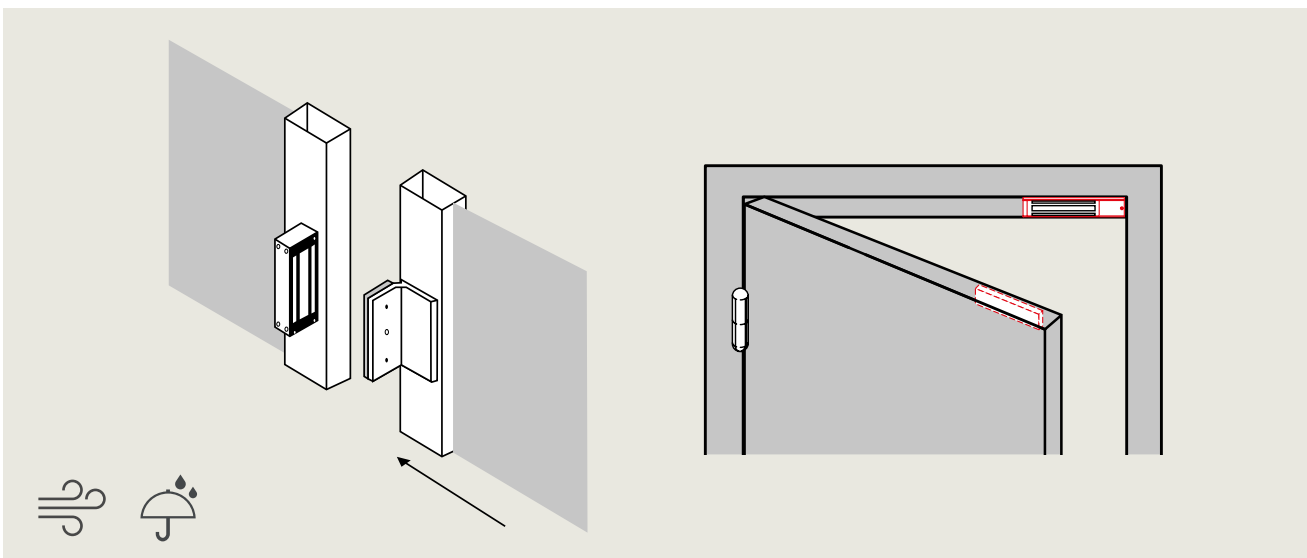


### EM 7500-S AH

Weather-resistant electromagnetic lock with up to 7500 N holding force, with lock status sensor, stainless steel housing, side-mounted for sliding doors

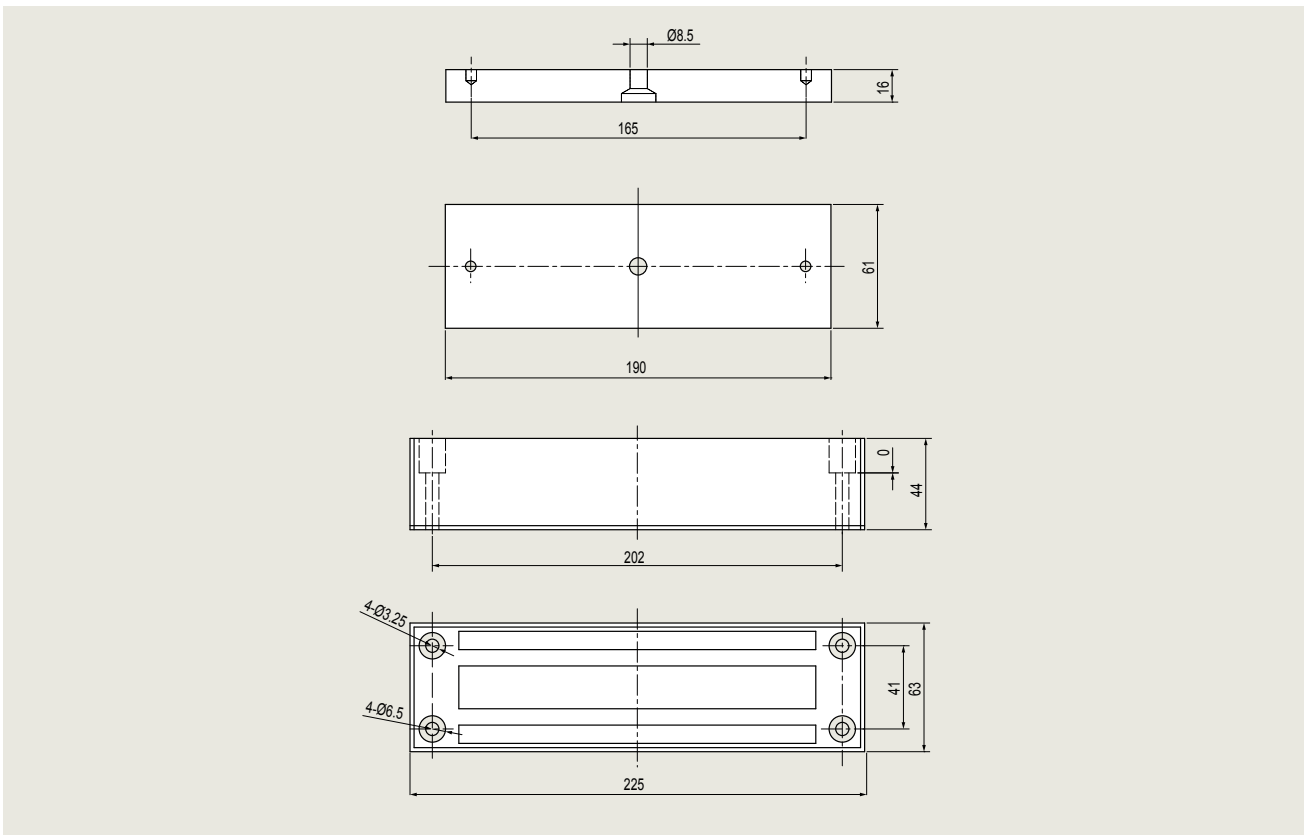
**19860301**

## Typical Application



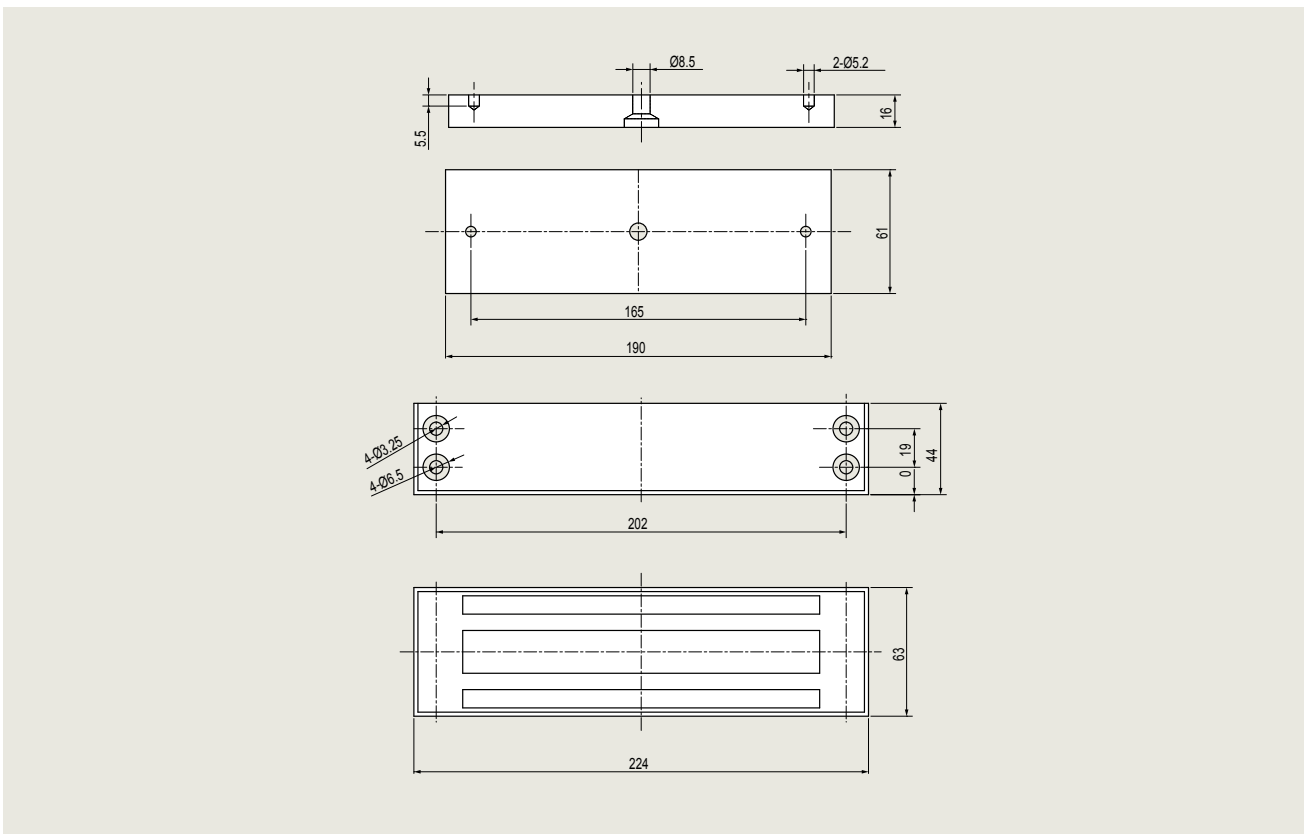
EM 7500-F AH

(Order No. 19860300)



EM 7500-S AH

(Order No. 19860301)



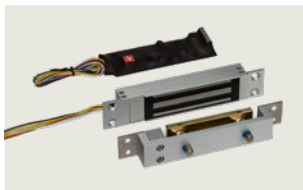
# Shear Locks

- Concealed solution thanks to minimal dimension
- Large shear holding force
- The unique solution for double action swing doors

Technical data	EM 7500-D AM	EM 15000-D AM
Holding force	7500 N	15000 N
Installation	Mortise-mounted	Mortise-mounted
Magnet housing dimensions	129L x 31W x 19H mm	152L x 32W x 24H mm
Armature plate dimensions	129L x 26W x 21H mm	152L x 30W x 28H mm
Operation principle	Fail-safe (power to lock)	Fail-safe
Power supply	12/ 24 V DC	12/ 24 V DC
Current	1500/750 mA	1500/750 mA
Lock status sensor	yes	yes
LED indication LSS	no	no
Operation temperature	-40 to 60°C	-40 to 60°C
IP class	IP 43 installed	IP 43 installed
Certification	RoHS, REACH, CE	RoHS, REACH, CE
Warranty	2 years	2 years
Application	Interior swing doors, double action doors	Interior swing doors, double action doors

## Specification text

## Order No.



### EM 7500-D AM

Shear lock with up to 7500 N holding force, mortise-mounted, with lock status sensor, suitable for double-action doors

**19860320**

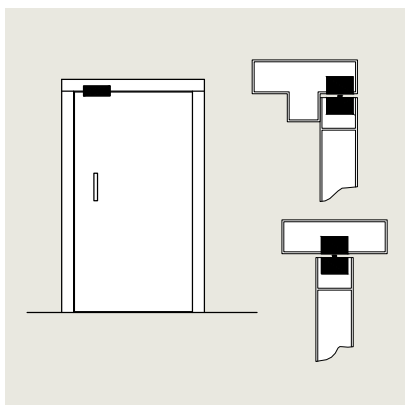


### EM 15000-D AM

Shear lock with up to 15000 N holding force, mortise-mounted, with lock status sensor, suitable for double-action doors

**19860420**

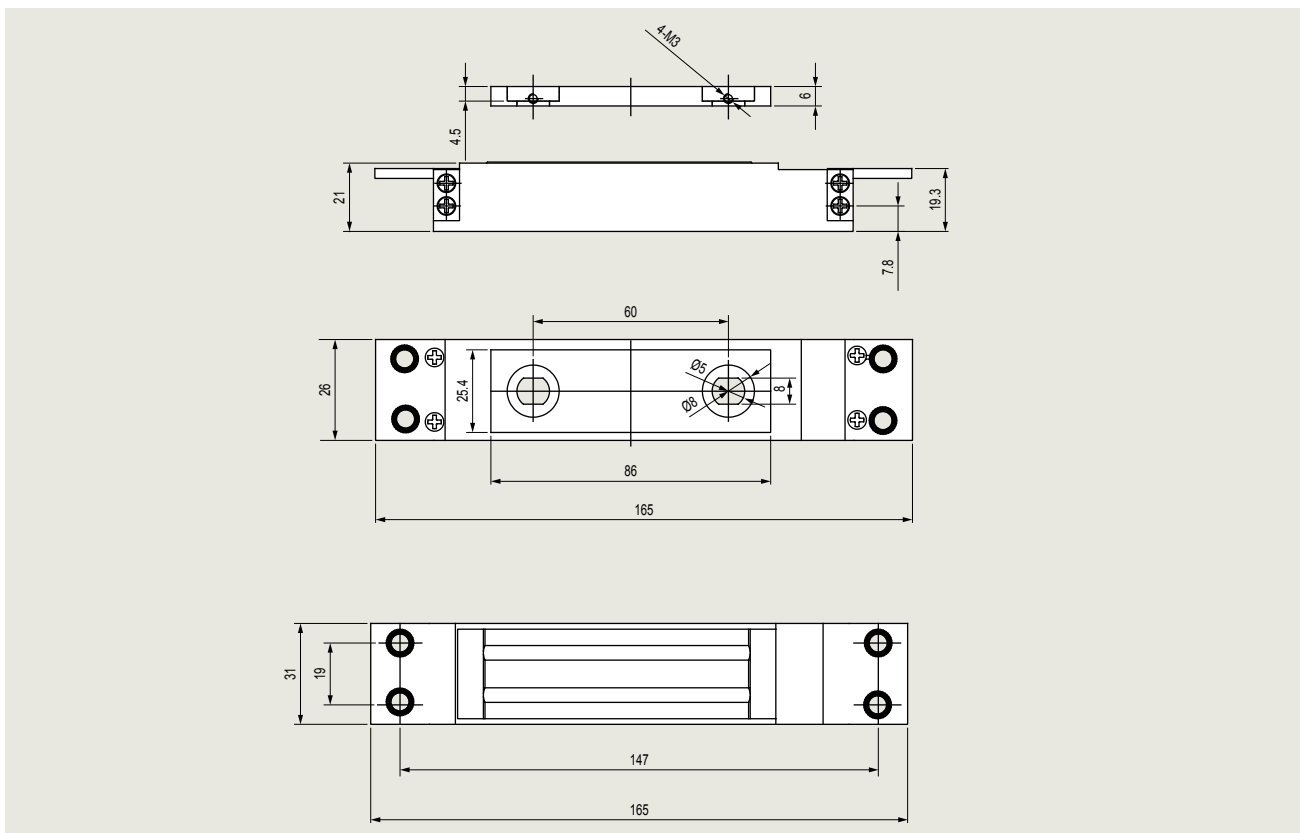
## Typical Application



Note: for double-action door application we recommend to use shear lock in combination with heavy duty floor spring.

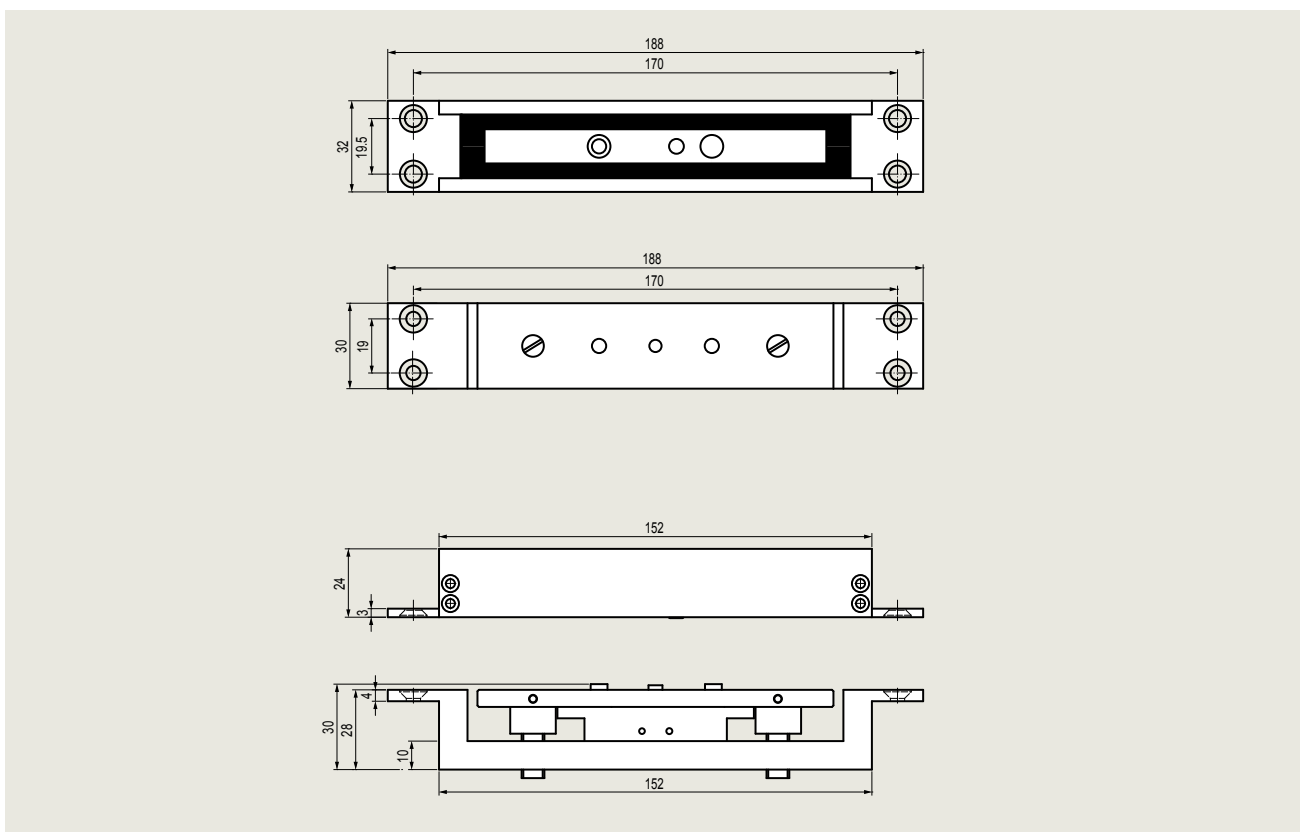
EM 7500-D AM

(Order No. 19860320)



EM 15000-D AM

(Order No. 19860420)





# Hybrid Locks

The EM 6900 series offers advanced mini electromagnets with 15000 N holding force for high security doors. The locks feature an integrated lock status sensor, a door status sensor, an Early Warning detector and a built-in buzzer.

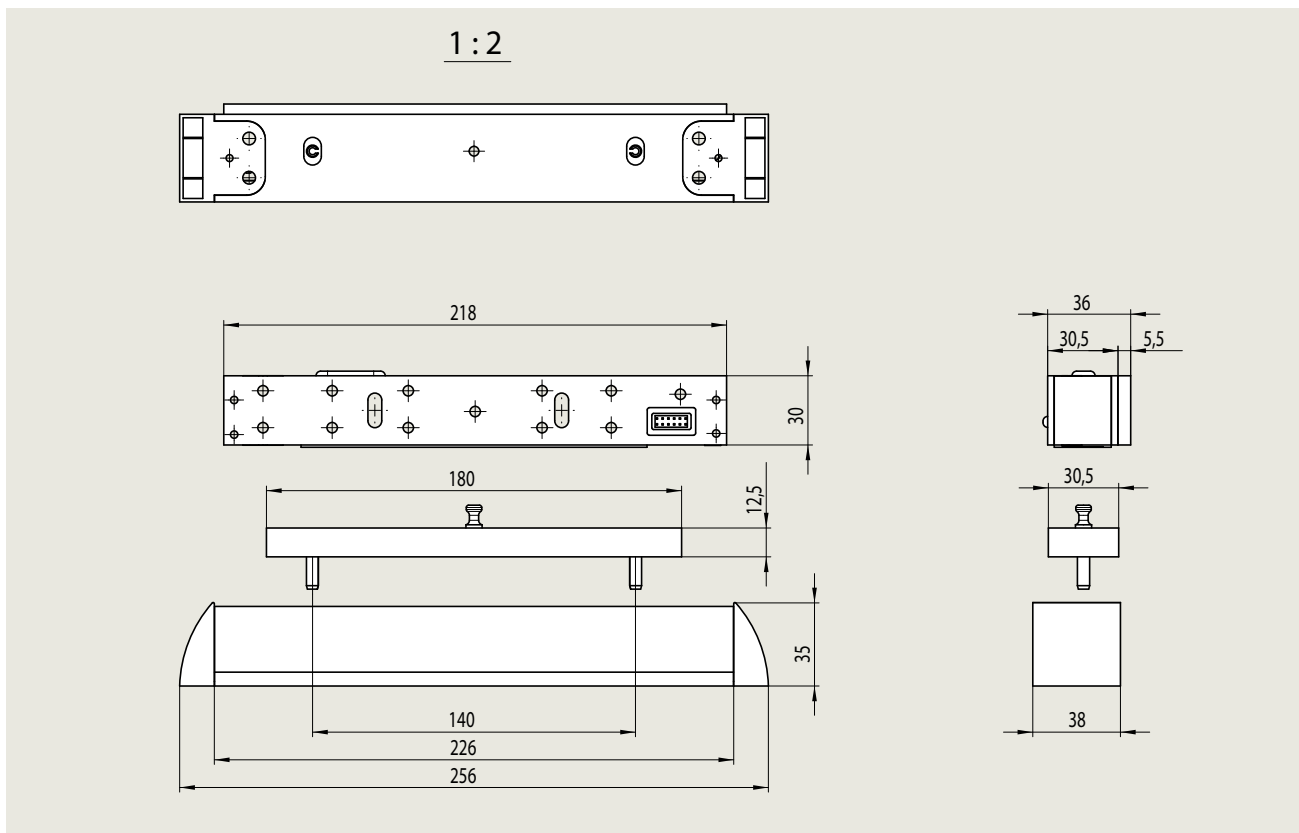
- Maximum holding force level: > 15000 N
- Minimal size (surface version -30.5 / mortise version -35.5 mm width) for universal installation
- Highest security: The Early Warning detector will generate a remote alarm and activate the built-in buzzer before unauthorized access occurs.
- Innovative hybrid solution combining mechanical and electromagnetic holding force
- With tamper-proof armature plate bracket
- Energy-saving: Less power consumption than conventional electromagnetic locks

Technical data	EM 6900 GL-AH B	EM 6900 AM B
Holding force	> 15000 N	> 15000 N
Installation	Surface-mounted	Mortise-mounted
Magnet housing dimensions	218L x 30.5W x 30H mm	195L x 35.5W x 25.7 H mm
Armature plate dimensions	256L x 30W x 38H mm (incl. bracket)	195L x 35.5W x 24H mm
Operation principle	Fail-safe (power to lock)	Fail-safe (power to lock)
Power supply	12 / 24 V DC	12 / 24 V DC
Current	400 / 200 mA	400 / 200 mA
Lock status sensor	yes	yes
Mega LED indication LSS	yes	no
Early warning alarm	Reed + built-in buzzer	Reed + built-in buzzer
Operation temperature	-40 to 60°C	-40 to 60°C
IP class	IP 43 installed	IP 43 installed
Certification	RoHS, REACH, CE	RoHS, REACH, CE
Warranty	2 years	2 years
Applicaton	Interior (doors fitted with security access control systems)	Interior (doors fitted with security access control systems)

	Specification text	Order No.
	<p><b>EM 6900 GL-AH B</b> Single surface-mounted hybrid electromagnetic lock with more than 15000 N holding force, with lock status sensor and MegaLed, door status sensor, Early Warning detector and built-in buzzer, anodized aluminium finish</p>	<b>19860241</b>
	<p><b>EM 6900 AM B</b> Single mortise-mounted hybrid electromagnetic lock with more than 15000 N holding force, with lock status sensor, doors status sensor, Early Warning detector and built-in buzzer</p>	<b>19860242</b>

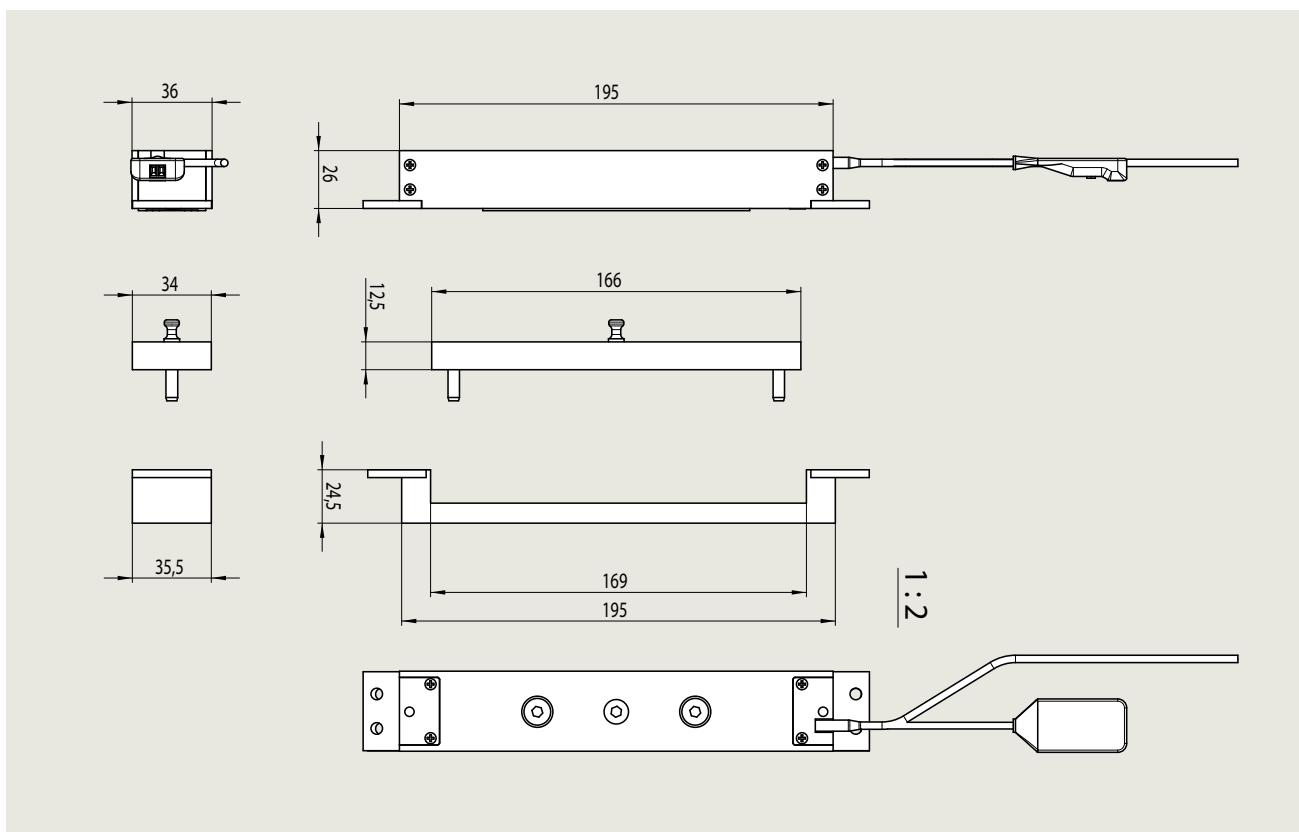
EM 6900 GL-AH B

(Order no. 19860241)



EM 6900 AM B

(Order no. 19860242)





**Door  
Hardware**



**Electronic  
Access & Data**



**Mechanical  
Key Systems**



**Lodging Systems**



**Entrance  
Systems**



**Interior Glass  
Systems**



**Safe Locks**



**Service**

**dormakaba**  
**International Holding AG**  
Hofwisenstrasse 24  
CH-8153 Rümlang  
T +41 44 818 90 11  
info@dormakaba.com  
www.dormakaba.com