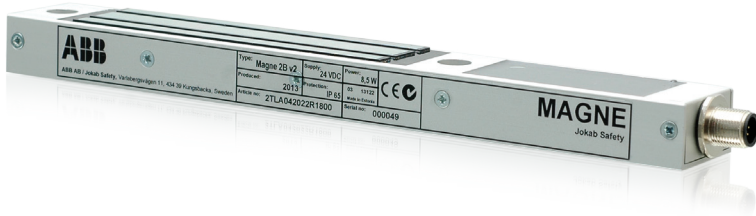


Please note!  
Magne 1 is obsolete and has been replaced by Magne 3.

## Electromagnetic process lock Magne 1 & 2



### Magnetic lock with indication

Magne is a electromagnetic lock that is designed for industrial applications and that can withstand harsh environments. As it is designed with no moving parts, it is durable and long lasting. The unit is intended for use in preventing unnecessary process stoppages, i.e. it is not a safety lock. Magne, with its electromagnet, keeps a door locked with a holding force up to 1500 N and magnetic material does not attach to the magnetic surface when the power is off.

Use of M12 connectors makes it easy to connect several Magne units and Eden sensors in series enabling control and monitoring by either a Pluto safety PLC or a Vital safety controller. Via the connection cable it is also possible to obtain an indication signal informing if the Magne unit is locked or not.

### Accessories:

- Mounting kit for conventional door, with fitting and screws for assembly on ABB Jokab Safety Quick-Guard fencing system (5-15 mm door gap)
- Plastic handle
- Handle profile for mounting on a hinged door with ABB Jokab Safety's Quick-Guard fencing system (5-15 mm door gap).

### Approvals:



### Application:

- Electrical locking of doors and hatches for production applications that are sensitive to unintentional/unnecessary interruptions.
- For safety supervision the Magne 2 has an integrated Eden.

### Features:

- No moving parts
- Strong Magnetic holding force: 1500N
- Can withstand and operate in harsh environments
- Locked/unlocked indication
- Possible to connect in series with Eden sensors
- No current peaks on activation
- Magne 2 in combination with a handle profile provides a complete door solution



Magne is easy to install, adjust and dismantle in and out of the T-slot of the Quick-Guard fencing system.

**Please note!**  
**Magne 1 is obsolete and has been replaced by Magne 3.**

**Technical data**

<p><b>Functional safety data</b></p> <p>IEC/EN 61508-1...7  EN 62061  EN ISO 13849-1</p>	<p>For interlocking switch Eden. Not valid for locking function.</p> <p>SIL3, PFH<sub>d</sub> = 4.50 x 10<sup>-9</sup>  SIL3, PFH<sub>d</sub> = 4.50 x 10<sup>-9</sup>  PL e/Cat. 4, PFH<sub>d</sub> = 4.50 x 10<sup>-9</sup></p>
<p><b>Electrical data</b></p> <p>Power supply</p> <p>Total current consumption</p>	<p>Magnet: 24 VDC +/- 15%  Eden: 17–27 VDC, ripple max 10%</p> <p>Magnet: 7 W (300 mA at 24 VDC)  Eden: 45–55 mA (see data for Eden)</p>
<p><b>Operating temp. range</b></p>	<p>-20°C to +50°C</p>
<p><b>Protection class</b></p>	<p>IP65</p>
<p><b>Weight</b></p>	<p>Magne 1: 610 g, Magne 2: 700 g, Anchor 32A/B: 290 g, Anchor 34A/B: 308 g</p>
<p><b>Material</b></p>	<p>Anchor plate: Iron with nickel coating  Magnet: Iron with zinc-nickel coating  Housing: Anodized aluminium  Potting: PUR, epoxy</p>
<p><b>Holding force</b></p>	<p>24 VDC: Min 1500 N  0 VDC: 0 N  Anchor plate permanent magnet: 30 N (Magne -1B, -2B, -2Bx)</p>
<p><b>Contacts</b></p> <p>Switch current max</p>	<p>Reed sensor (non-failsafe)  100 mA, resistive load</p>
<p><b>Mechanical life</b></p>	<p>&gt;10<sup>7</sup> switch operations</p>
<p><b>Connector</b></p>	<p>M12 5-pole male connector (Magne 1A/B, 2Ax/Bx)  M12 8-pole male connector (Magne 2A/B)</p>
<p><b>Connections</b></p>	<p><b>Magne 1A/B:</b></p> <p>(1) Brown: Locking, +24 VDC  (2) White: Common, Reed contact  (3) Blue: 0 V  (4) Black: NO-contact, Reed contact, closed when locked  (5) Grey: NC-contact, Reed contact, closed when unlocked</p> <p><b>Magne 2A/B:</b></p> <p>(1) White: Dynamic signal input  (2) Brown: +24 VDC  (3) Green: Locking, +24 VDC  (4) Yellow: Locking, 0V  (5) Grey: Info closed (max 10 mA)  (6) Pink: Dynamic signal output  (7) Blue: 0 V  (8) Red: Info locked (max 100 mA)</p> <p><b>Magne 2Ax/Bx:</b></p> <p>(1) Brown: +24 VDC  (2) White: Dynamic signal input  (3) Blue: 0 V  (4) Black: Dynamic signal output  (5) Grey: Locking</p>
<p><b>Conformity</b></p>	<p>EN ISO 12100-1:2010, EN ISO 13849-1:2008, EN ISO 13849-2:2008, EN 62061:2005,  EN 60204-1:2006+A1:2009, EN 60664-1:2007, EN 61000-6-2:2005, EN 61000-6-4:2007,  EN 60947-5-1:2004, EN 1088+A2:2008</p>

**Please note!**  
**Magne 1 is obsolete and has been replaced by Magne 3.**

## Ordering information

### Models and ordering data

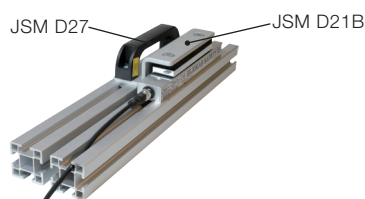
Magne 1A	2TLA042022R2100	Electromagnet with 5-pole M12-contact. Anchor plate. Cell rubber.
Magne 1B	2TLA042022R2200	Electromagnet with 5-pole M12-contact. Anchor plate with permanent magnet. Cell rubber.
Magne 2A	2TLA042022R1600	Magnetic lock with indication. Electromagnet with 8-pole M12-contact. Anchor plate. Cell rubber. Adam (built-in) + Eva (free) door position sensor.
Magne 2B	2TLA042022R1800	Magnetic lock with indication. Electromagnet with 8-pole M12-contact. Anchor plate with permanent magnet. Cell rubber. Adam (built-in) + Eva (free) door position sensor.
Magne 2Ax	2TLA042022R1700	Magnetic lock with indication. Electromagnet with 5-pole M12-contact. Anchor plate. Cell rubber. Adam (built-in) + Eva (free) door position sensor.
Magne 2Bx	2TLA042022R1900	Magnetic lock with indication. Electromagnet with 5-pole M12-contact. Anchor plate with permanent magnet. Cell rubber. Adam (built-in) + Eva (free) door position sensor.

### Accessories

JSMD28	2TLA042023R0100	Aluminum profile used as both door handle and mounting kit for Magne. Completely covers Magne unit when the door is closed.
JSM D21B	2TLA042023R0500	Mounting kit for Magne. For conventional door (5-15 mm door gap). Fits all Magne. Note: When used with Magne 2A/B,-2Ax/Bx a mounting kit for Eva is also required (JSM D24).
JSM D23	2TLA042023R0200	Mounting kit for Magne. For sliding door. Fits all Magne.
JSM D24	2TLA042023R0300	Mounting kit for Eva. For conventional door.
JSM D27	2TLA042023R1000	Handle/screw for JSM D21 Magne installation kit.

### Spare parts

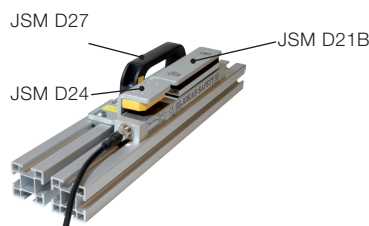
Cellular rubber	2TLA042023R3600	Cellular rubber t=10 mm
Anchor plate 32A	2TLA042023R1300	Anchor plate A (without permanent magnet). Width 32 mm. Included with Magne 1/2
Anchor plate 34A	2TLA042022R2300	Anchor plate A (without permanent magnet). Width 34 mm.
Anchor plate 32B	2TLA042023R0400	Anchor plate B (with permanent magnet). Width 32 mm. Included with Magne 1/2
Anchor plate 34B	2TLA042022R2400	Anchor plate B (with permanent magnet). Width 34 mm.



Magne 1A with installation kit.



JSMD28 handle profile which cover Magne completely when the door is closed.



Magne 2A with installation kit.

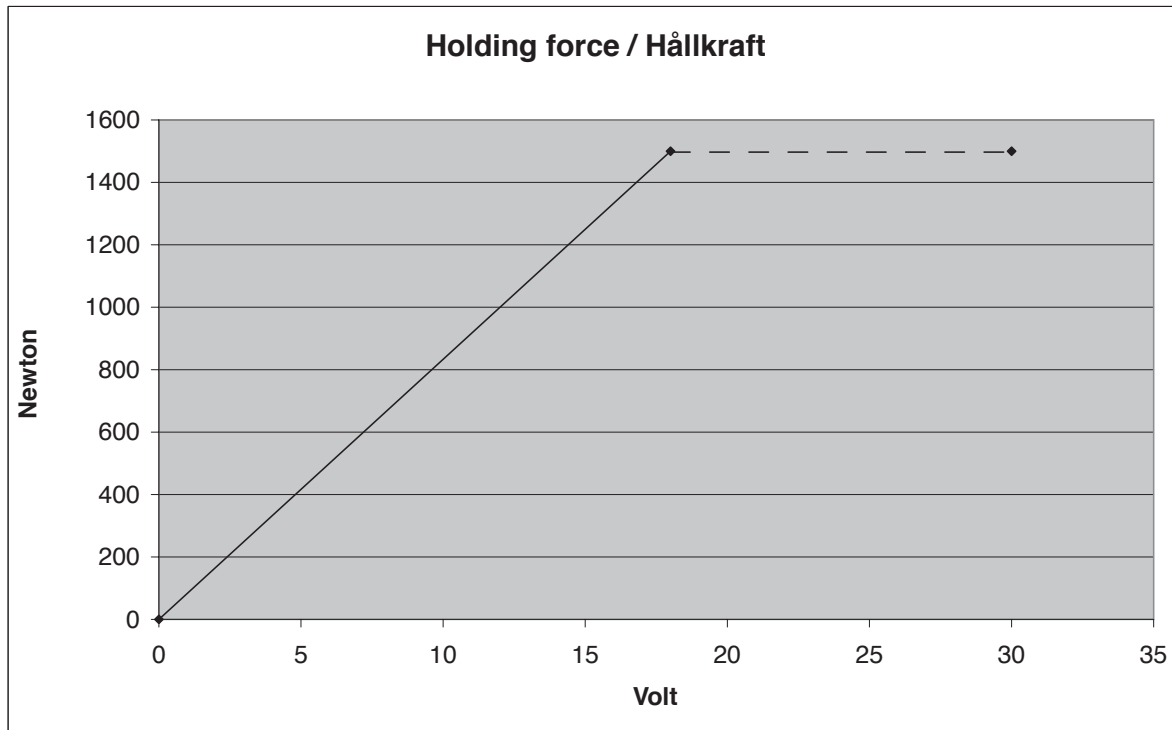


Magne 2A with installation kit JSM D23.

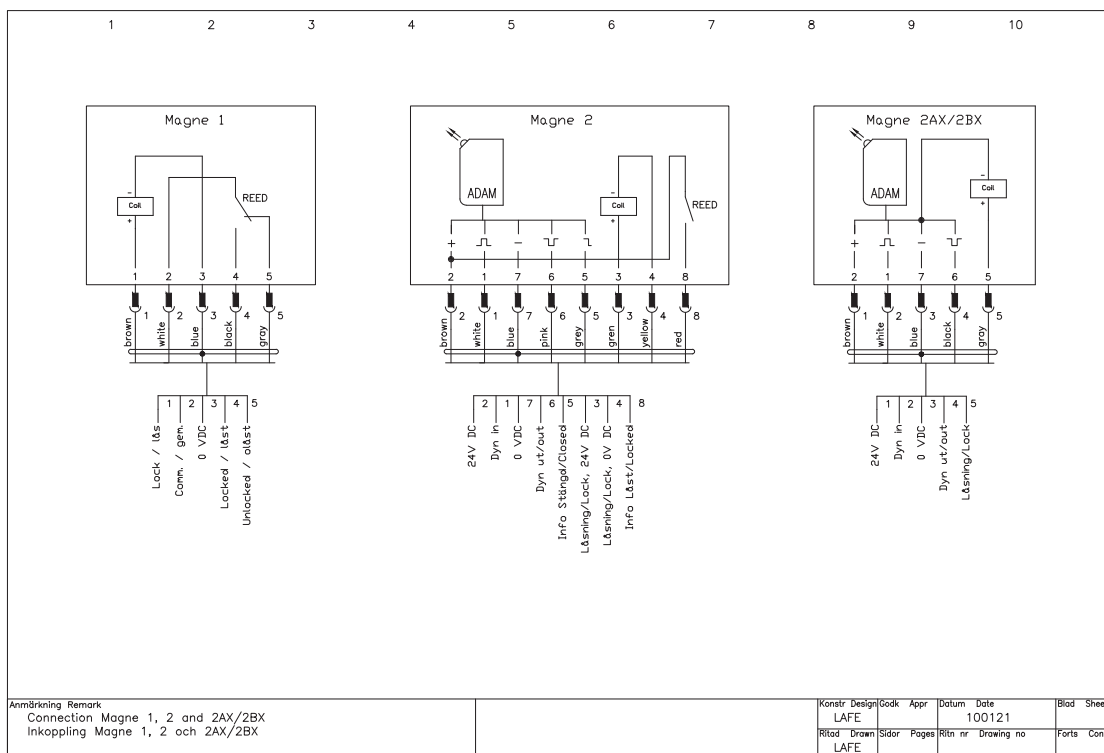
Please note!  
 Magne 1 is obsolete and has been replaced by Magne 3.

## Connection examples

### Holding force - Magne 1 and 2

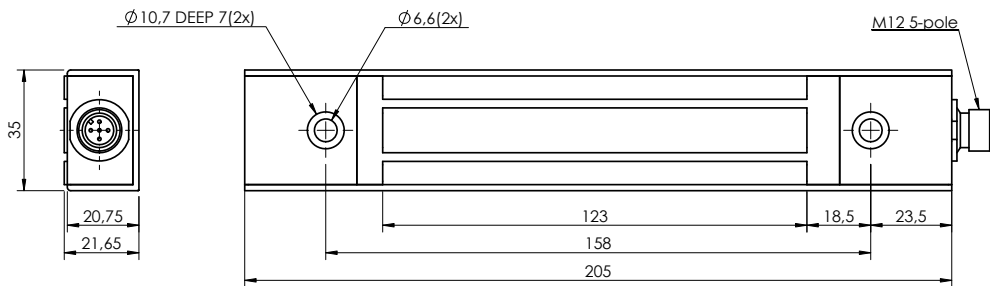


### Connection example - Magne 1 and 2

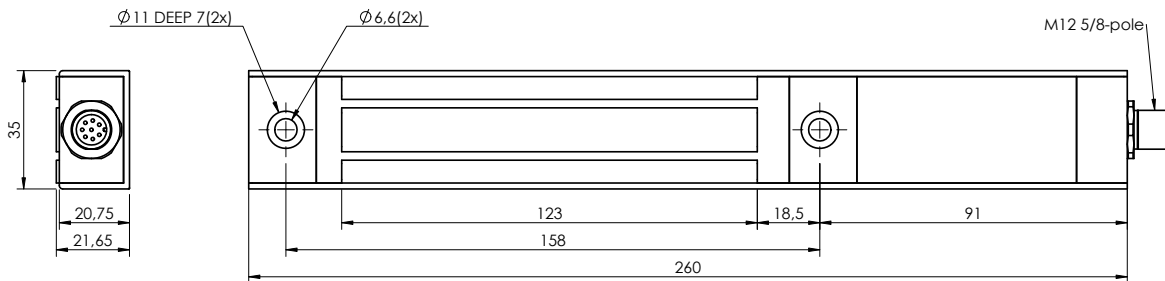


Please note!  
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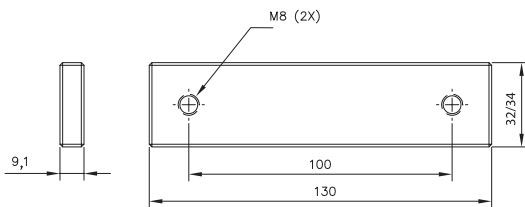
## Dimensions



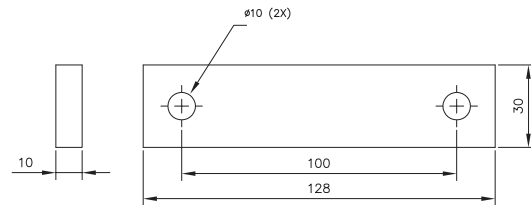
Magne 1A/B



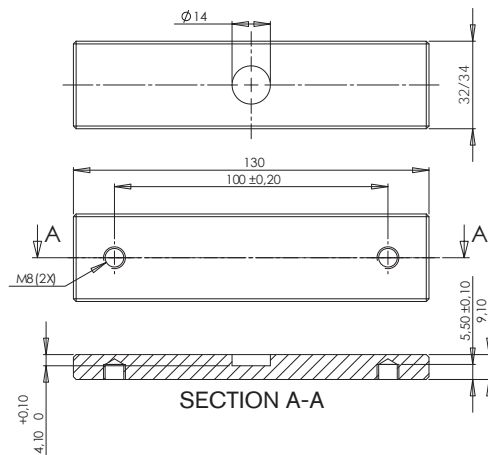
Magne 2A/B, -2Ax/Bx



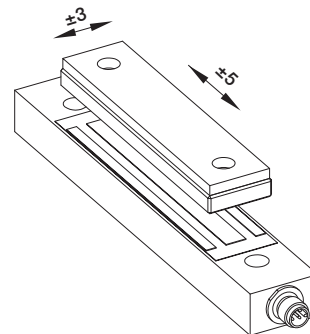
Anchor plate 32A/34 (without permanent magnet)



Cellular rubber



Anchor plate 32B/34B (with permanent magnet)



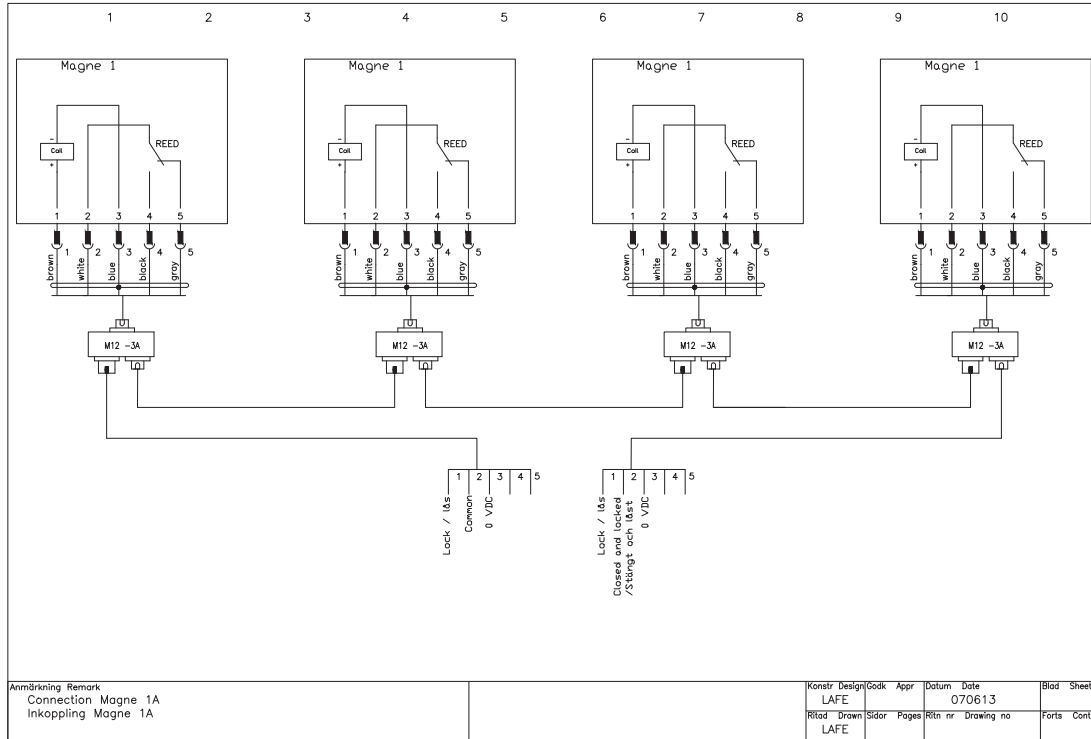
Installation tolerance (general)

NOTE!  
 All dimensions are in mm

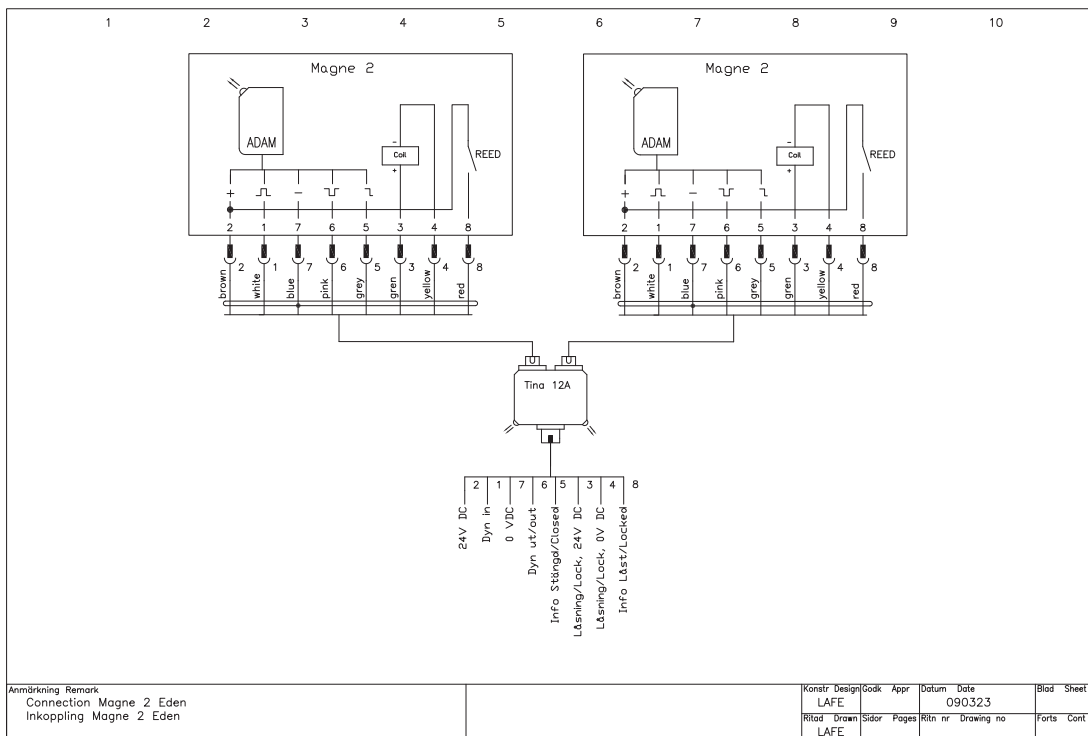
Please note!  
 Magne 1 is obsolete and has been replaced by Magne 3.

## Connection examples

### Connection example - Magne 1 in series



### Connection example - Magne 2 in series



Please note!  
Magne 1 is obsolete and has been replaced by Magne 3.

## Contact us

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