



Prison Solutions

SECURITY  
MADE IN GERMANY  
SINCE 1883

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## HSL 104

### Motorised latch lock

The HSL 104 lock is equipped with a motorised latch bolt. It has a re-codeable HSL tumbler locking mechanism. In the standard version, the lock has conventional dry I/O contacts for control and evaluation. The higher-quality version has BUS connectors.



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## FUNCTIONAL DESCRIPTION

The opening process is carried out by pressing a designated button on the control unit, a command via a Facility management system or by holding a valid transponder key to the transponder reader. The latch bolt is released and withdrawn by the motor. The door can be opened manually or by an on-site door drive.

As soon as the door swings out of the frame, the latch bolt drives into latch position by motor.

The door can be slammed to shut. As soon as the door is in the frame the latch bolt is secured via motor. The door is completely locked and secured.

In the event of a power failure or malfunction, the lock can be operated with the HSL double-bit key.

### Re-coding the lock

The locking mechanism can be re-coded to a different locking when it is unlocked (bolt withdrawn). This requires a key of the current locking and a key of the future locking.

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## FEATURES

The HSL 104 lock is equipped with a motorised latch bolt. It has a re-codeable HSL tumbler locking mechanism. In the standard version, the lock has conventional dry I/O contacts for control and evaluation. The higher-quality version has BUS connectors.

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## APPLICATION AREAS

The type HSL 104 is designed for detention room doors and passage doors. Lock functions can be set up just as easily as privacy locking via transponder keys.



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## OVERVIEW

- designed for detention room doors, passage doors and airlock doors
- Integration into Facility management systems and STUV transponder management software (BUS version)
- Latch bolt operation via motor
- Operation via transponder key
- Manual emergency locking with HSL double-bit key (1 turn)
- Lock can be re-coded without tools

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## PRODUCT LOCATIONS

- Passage door
- Detention room door
- Outer gate
- Airlock door
- Main entrance door
- Fire protection door
- Smoke protection door

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## TECHNICAL DETAILS

Dimensions: (LxWxH)	200 x 22 x 220 mm
Forend dimension: (LxWxH)	280 x 30 x 4 mm
Bolt throw:	20 mm
Bolt material:	Stainless steel casting
Bolt finishing:	sliding coated
Lock case material:	Stainless steel
Finishing:	matt
Weight:	3,3 kg
Locking system:	HSL double-bit lever system
Levers:	7
mechanically re-codable:	yes
mechanical bolt position indicator:	non
max. side load bolt forces:	10 kN
max. end load bolt counterforce:	2,5 kN
Number of audited locking operations:	500,000
IP rating:	IP65
Fire protection testing:	AINSI
Break-in standard:	according to DIN EN14256
Supply voltage:	24V DC
max. power consumption:	1500 mA

Operating temperature:	-40°C to +65°C
Storage temperature:	-40°C to +65°C
Relative humidity:	95% non condensing
Control inputs:	Lock locked / unlocked Locking system interlock active / inactive Door open / closed
Sensor outputs:	End position open / closed Locking mechanism locked / unlocked Sabotage/Disruption

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## OPTIONS

The following equipment options are available for lock type HSL 104:

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### S1 | MAIN LOCKING MECHANISM: LOCKABLE ON ONE SIDE

The key guide of the main locking mechanism is located on one side of the lock. This equipment is used e.g. for detention room locks.

#### Configurable options

- Lockable on one side
- Lockable on both sides

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### S2 | MAIN LOCKING MECHANISM: LOCKABLE ON BOTH SIDES

The key guide of the main locking mechanism is located on both sides of the lock. This equipment is used e.g. for passage doors.

#### Configurable options

- Lockable on one side
- Lockable on both sides

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### DR | DIN DIRECTION: RIGHT HAND

If the hinges are on the right side of the door, it is the "DIN right" door opening.

#### Configurable options

- DIN direction: right
- DIN direction: left

## **DL | DIN DIRECTION: LEFT HAND**

If the hinges are on the left side of the door, it is the "DIN left" door opening.

### **Configurable options**

- DIN direction: right
- DIN direction: left

## **OA | OPENING DIRECTION: OUTWARD**

Required specification for one-sided closing locks with deadbolt latch or deadbolt and latch. This applies e.g. to lock types HSL 102 and 104 with feature S1.

## **OE | OPENING DIRECTION: INWARD**

Required specification for one-sided closing locks with deadbolt latch or deadbolt and latch. This applies e.g. to lock types HSL 102 and 104 with feature S1.

## **SK | SPECIAL FOREND: ANGULAR**

The forend is square at both ends and not round.

### **Configurable options**

- Standard forend: round
- Special forend: angular
- Special forend: extra wide
- Special forend: extra long

## **SL | SPECIAL FOREND EXTRA LONG: LENGTH 325 MM AND WIDTH 35 MM**

The special forend is 45 mm longer and 5 mm wider than the standard version.

### **Configurable options**

- Standard forend: round
- Special forend: angular
- Special forend: extra wide
- Special forend: extra long

## **SM | SPECIAL FOREND MEDIUM WIDE: WIDTH 40 MM**

The special forend is 10 mm wider than the standard version.

### **Configurable options**

- Standard forend: round
- Special forend: angular
- Special forend: extra wide
- Special forend: extra long

## **SE | SPECIAL FOREND EXTRA WIDE: WIDTH 50 MM**

The special forend is 20 mm wider than the standard version.

### **Configurable options**

- Standard forend: round
- Special forend: angular
- Special forend: extra wide
- Special forend: extra long

## **KB | LOCKING MECHANISM INTERLOCK (ENERGISED LOCKED) AND QUERY OF THE LOCK STATES WITH CONV. I/O CONTACTS**

The mechanical locking mechanism can be interlocked via conventional I/O contacts. Locking with the HSL key is not possible in this state. In addition, various lock states can be signalled:

- Bolt extended / retracted
- Lock / door in frame
- Interlock active / inactive

### **Configurable options**

- Locking mechanism interlock (energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (energised locked) and status query of the lock states with Bus contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with Bus contacts

## **KU | LOCKING MECHANISM INTERLOCK (DE-ENERGISED LOCKED) AND QUERY OF THE LOCK STATES WITH CONV. I/O CONTACTS**

The mechanical locking mechanism can be interlocked via conventional I/O contacts. Locking with the HSL key is not possible in this state. In addition, various lock states can be signalled:

- Bolt extended / retracted
- Lock / door in frame
- Interlock active / inactive

With this equipment option, we also recommend Option ZA (cylinder emergency release in the event of locking mechanism interlock (de-energised blocked)).

### **Configurable options**

- Locking mechanism interlock (energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (energised locked) and status query of the lock states with Bus contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with Bus contacts

## **BB | LOCKING MECHANISM INTERLOCK (ENERGISED LOCKED) AND QUERY OF THE LOCK STATES WITH BUS CONTACTS**

The mechanical locking mechanism can be interlocked via BUS contacts. Locking with the HSL key is not possible in this state. In addition, various lock states can be signalled:

- Bolt extended / retracted
- Lock / door in frame
- Interlock active / inactive

### **Configurable options**

- Locking mechanism interlock (energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (energised locked) and status query of the lock states with BUS contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with BUS contacts

## **BU | LOCKING MECHANISM INTERLOCK (DE-ENERGISED LOCKED) AND QUERY OF THE LOCK STATES WITH BUS CONTACTS**

The mechanical locking mechanism can be interlocked via BUS contacts. Locking with the HSL key is not possible in this state. In addition, various lock states can be signalled:

- Bolt extended / retracted
- Lock / door in frame
- Interlock active / inactive

With this equipment option, we also recommend Option ZA (cylinder emergency release in the event of locking mechanism interlock (de-energised blocked)).

### **Configurable options**

- Locking mechanism interlock (energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with conv. I/O contacts
- Locking mechanism interlock (energised locked) and status query of the lock states with BUS contacts
- Locking mechanism interlock (de-energised locked) and status query of the lock states with BUS contacts

## **CO | CONNECTION FOR CONVENTIONAL I/O CONTACTS (DRY CONTACTS)**

The lock has floating contacts (Dry Contact) for connection to PLC controls or a STUV door control. Large variety of I/O devices available for almost all applications.

- with floating contacts (Dry Contact)

## **CB | CONNECTION FOR BUS CONTROL**

The lock has a BUS connection. BUS (Binary Unit System) is a data transmission system for the standardised connection of decentrally arranged devices, locks and readers, the so-called bus participants. The line-saving basic principle is that all bus participants can be connected to one bus line and exchange signals for opening, closing, signalling and monitoring on this line.

### **Benefits**

- Flexibility: If changes need to be made to the door control functions, there is no need to reinstall, only to reprogram
- Simultaneous use of information: Information from one detector can be used in many places (e.g. opening of a detention room, simultaneous switching on or off of the detention room lighting, signalling of the open door via a signal light)

## **CT | CONNECTION FOR BUS CONTROL AND TRANSPONDER READER**

Connection for BUS control and transponder reader



## **MF | MAGNET IN LATCHBOLT: LATERAL**

With a reed contact (provided by the customer) in the frame, this feature enables electronic evaluation of the door's locking status (signal: latch bolt locked and door in frame). The magnets are mounted laterally in the latch and are visible. For this application, we recommend a functional test of the frames in conjunction with an on-site reed contact.

### **Configurable options**

- Bolt without magnet
- Bolt with bar magnet
- Latchbolt with magnet

## **AS | REMOVAL BARRIER**

The removal barrier prevents unauthorised removal of the lock when the door is open. The lock can only be removed when the locking elements are locked. Ergo, the double-bit key is absolutely necessary.

## **PP | POWERPACK FOR ONE-TIME MOTORISED EMERGENCY LOCKING IN CASE OF POWER FAILURE**

The PowerPack is installed in the lock and works like a short-term battery. In the event of a power failure, a motorised lock can be opened or closed once.

### **Configurable options**

- without PowerPack (mechanical closing always guaranteed in case of power failure)
- with PowerPack

## **BW | MOTOR WITH PARTICULARLY EFFECTIVE STARTING POWER**

Motor with particularly effective starting power

## **PS | PRODUCTION LOCK (DUMMY LOCK WITHOUT TUMBLER LOCK MECHANISM)**

Dummy lock available for door production without security features. The production lock will be charged. After a faultless return (inspection by STUV Prison Solutions), the amount minus shipping costs will be refunded or charged.

Please log in to access the technical drawing.