FT 200 / FT 200 CAP Furniture terminal for controlling EFL 3 / EFL 3C furniture locks

>	Area of application:	Intelligent furniture terminal, for controlling furniture locks
>	Material:	Housing: Plastic
>	Colour:	Black

> Integration into Dialock software for convenient configuration and administration of locking points and locking authorisations
> Prepared with BLE (Bluetooth Low Energy)
> Direct connection of up to 4 EFL 3/EFL 3C
> Connection of 2 antennas
> Extension of functions possible using individual macros

Ⓐ Potential free input/output port
Ⓑ Power supply output port
Ⓒ Power supply input port
Ⓓ 4 x EFL 3 / EFL 3C or MLA 6P connection
Ⓔ Connection for optical signal generator (LED)
Ⓕ Connection for acoustic signal generator
Ⓖ 2 x FAN 200 antenna connection
Ⓗ MLA 8 connection

Standard functions
> Activation by holding an authorised user key in front of the antenna which unlocks the furniture lock by means of a pulse
> **Spring bolt lock function:** Automatic locking after 3 seconds after the lock has been released (open time setting variable up to 30 seconds)
> **Deadbolt lock function:** The lock is locked and unlocked permanently by holding an authorised user key in front of the lock
> Acoustic feedback as key read receipt

Keyed alike furniture locks:
An authorised user key simultaneously unlocks all locks that are connected to the FT 200 / FT 200 CAP furniture terminal.

Keyed to differ furniture locks:
An authorised user key unlocks only selected locks of all that are connected to the FT 200 / FT 200 CAP furniture terminal.

Several furniture locks can also be implemented in combination with the MLA 6P / MLA 8 multi-lock adapter.
More information on functionality can be found under the MLA 6P / MLA 8 multi-lock adapters.
One CC 200 connection cable is required for each furniture lock.

Optional functions:
> Indication of the locking status, e.g. for unlocked door, via acoustic or optical signal generators (external LED)
> The opening time of the furniture lock can be adjusted variably to up to 30 seconds with the red and green programming card with the spring bolt lock function
Customer specific requirements (e.g. installation of an acoustic signal generator or activation of an alarm system) can be implemented with macro programmes on request
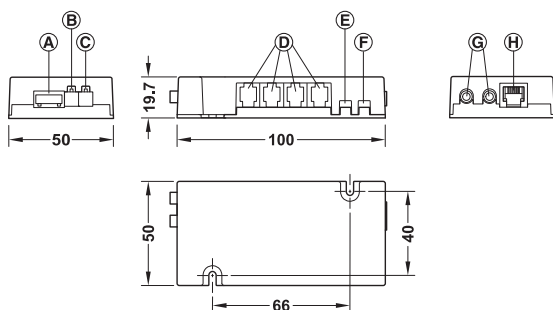
Notes concerning software operation:
Please contact your responsible Häfele employee when using the Dialock software.

Notes concerning macro programmes:
Macro programmes must be specified in advance using the request form. This can be found at www.dialock-support.de under Services tab.
An MDU 110 data transfer unit and instruction by a Dialock technician is required for programming. Please contact your responsible Häfele employee for more detailed information.

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Electronic Access Control Systems

DGH-M 2021, HDE-en, 11/20: Dimensional data not binding. We reserve the right to alter specifications without notice.

Technical data

Technology	Tag-it™, Mifare Classic EV1, Mifare DESFire EV1 and EV2
Voltage supply	12 V, ±20 %
EFL 3 / EFL 3C or MLA 6P connections	RJ10 – socket (4x)
MLA 8 connection	RJ11 – socket (1x)
Connection for antenna	Coaxial socket for 2 FAN 200 antennas
Mains lead length	150 mm
Current consumption max. (including EFL 3)	75–690 mA
Signal input ports	e.g. for external feedback contact or reed contact for door monitoring; with potential free relay, input/output port with 125 V DC / 60 V AC, max. 2 A
Relay output port	1 x change over
Number of possible Dialock keys	≤1,000
Operating temperature	0–55 °C
Degree of protection	IP20
Relative humidity	10–95 %, not condensed
Approvals	CE, FCC / IC

Supplied with
1 FT 200 furniture terminal
1 mains lead

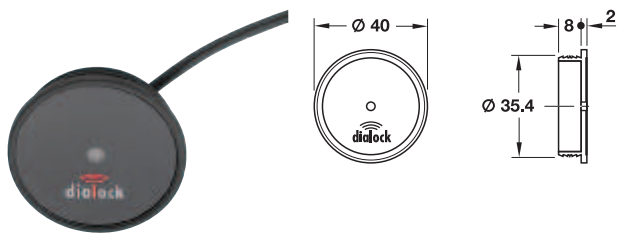| Version	Cat. No.
Standard	237.59.010
With energy storage capacity CAP (for integrated real time clock, stored for 6 days)	237.59.011

Order reference
Please order separately:
> EFL 3 / EFL 3C furniture lock
> CC 200 connection cable (connecting cable between EFL 3 and FT 200 / MLA 6P / MLA 8)
> PS 4 power supply unit
> FAN 200 antenna
> Programming and clearing key card
> User keys
> Dialock software and MDU 110 data transfer unit, if required
> A macro is required when installing an acoustic signal generator (see "optional functions")
> The plug connector must be ordered additionally when using the potential free input/output ports
> An individual macro must be installed initially when using the relay output port.

EFL 3 / EFL 3C furniture lock	►MB 6.17
MLA 6P or MLA 8 multi-lock adapter	►MB 6.36
External FAN 200 antenna	►MB 6.34
PS4 power supply unit	►MB 6.40
Programming and clearing key card	►MB 6.52
User keys	►MB 6.55
MDU 110 data transfer unit	►MB 6.53

6

Electronic Access Control Systems

14.04.2021
ID 2003

FAN 200 Antenna

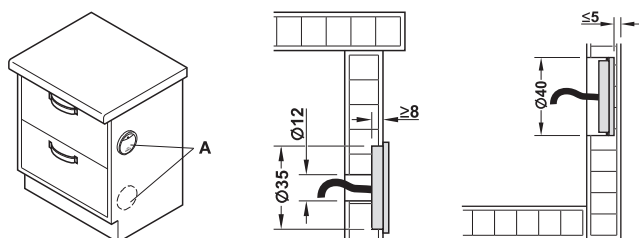|	
> Area of application:	For indoor use, for installation in furniture
> Functionality:	Offset reader unit for keys with integrated red/green LEDs, for indication of the activation status for FT 200 / FT 200 CAP furniture terminals
> Version:	With connection cable and coaxial plug

Technische Daten	
Technology	Tag-it™, Mifare Classic EV1, Mifare DESfire EV1 and Mifare DESfire EV2
Degree of protection	IP67

Installation example
(A = antenna)

For recess mounting in 35/40 mm cup drilling, mount antenna as close as possible to the front.

Note
Reader range:
Approx. 25 mm with FT 200 and FAN 200 antenna (key fob).
The range may be smaller due to environmental reasons, for example if metal materials or magnetic fields (power supply line) are in the near proximity.
The FAN 200 antenna must not be installed behind or on metal surfaces or behind mirrors.

▼ The antenna can be connected directly to the output port of the FT 200 furniture terminal.

▼ The FAN 200 antenna is not suitable for installation in metal or metal coated furniture.

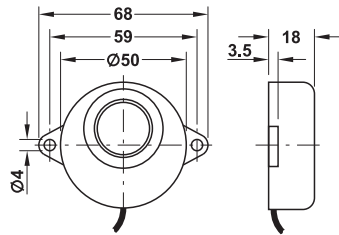▼ When installing 2 antennas, the distance between the antennas must be at least 250 mm.

Cable length m	Cat. No.
1	237.59.060
3	237.59.061
5	237.59.062

6

Electronic Access Control Systems

MB **6.34**

Recurring orders? Save as notepad.   www.hafele.com

Signal generator
→ Acoustic, 105 dB

> | > Functionality: | For acoustic indication of the locking status, for FT 200 furniture terminal, also suitable for customised message alerts such as alarms |
> | > Version: | Piezo sound generator with connection lead and plug |
> | > Material: | Housing: Plastic |
> | > Colour: | Housing: Black |

Technical data

Voltage supply	3–20 V DC
Nominal current	8 mA
Signal	Continuous tone (frequency 3.1 kHz)
Sound level (SP)	105 dB
Fixing distance	59 mm
Connection lead length	300 mm
Connection plug	Yellow
Operating temperature	–30 to +80 °C

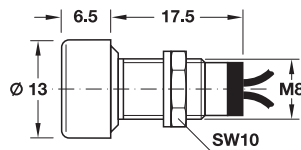|	Cat. No.
Acoustic signal generator, 105 dB*	237.59.040

Order reference

A macro is required for use in combination with FT 200. Other combinations on request.

* Technical data and more information can be found in our online shop under TecService.

Signal generator
→ Optical

> | > Functionality: | Red/green LEDs for optical indication of the locking status, for FT 200 furniture terminal, not suitable for customised message alerts such as alarms |
> | > Version: | Without series resistor, with connection lead and plug |
> | > Colour: | Housing: Chrome coloured |

Technical data

Voltage supply	1.7 V AC/DC
Continuous current	20 mA
Connection lead length	5 m
Connection plug	Red

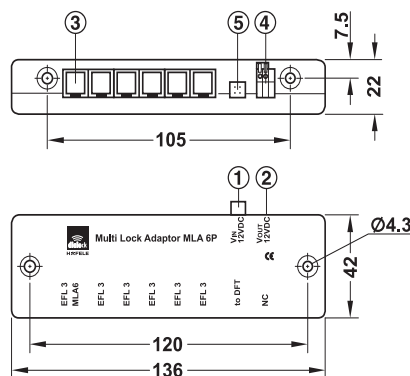|	Cat. No.
Signal generator, optical (LED)	237.59.041

Steckverbinder

> | > Einsatzbereich: | zur Nutzung des Relaisausgangs und des digitalen Eingangs |
> | > Funktion: | für potentialfreien Kontakt mit FT 200, Ein-/Ausgang mit maximal 2 Ampere |

	Artikel-Nr.
FT 200 Steckverbinder für Klemmleiste	237.59.012

Abpackung: 10 Stück

Electronic Access Control Systems

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MLA 6P Multi-lock adapter
For EFL 3 and EFL 3C furniture lock

> Only keyed alike operation possible
> Separate power supply

> Area of application:	Electronic multi-lock adapter for indoor use: For keyed alike EFL 3 and EFL 3C furniture locks
> Material:	Housing: Plastic
> Colour:	Housing: Anthracite/light grey

Technical data

Voltage supply	9.6–14.4 V DC
Current consumption max. (including EFL 3/ EFL 3C)	830 mA
EFL 3 / EFL 3C or MLA 6P connections	RJ10 – socket (6x)
FT 200 / FT 200 CAP connection	Molex socket (1x)
Output current (each EFL 3 OUT)	<500 mA (12 V)
Own consumption	50 mA
Output current (total)	<1000 mA (12 V)
Feedback contact	12 V, 50 mA
Mains lead length	0.5 m (with AMP plug)
Data cable length	0.5 m (with RJ10 and Molex plug)
Operating temperature	0–50 °C

Supplied with
1 MLA 6P multi-lock adapter
1 mains lead
1 data cable to FT 200

Order reference
Please order fixing material (Hospa countersunk head screws
4 x 35 mm/4 x 55 mm) separately.

① V_{in} (voltage supply)
② V_{out} (output current)
③ for EFL 3, EFL 3C or further MLA 6P
④ NC contact normally closed (for systems from other providers)
⑤ Data in (from FT 200)

The MLA 6P multi-lock adapter is the link between the FT 200 furniture terminal and the EFL 3 / EFL 3C furniture lock in cases where more than four furniture locks have to be actuated.
The MLA 6P multi-lock adapter uses the incoming data signal from the FT 200 furniture terminal and forwards it to the EFL 3, EFL 3C furniture locks in the form of a pulse for unlocking/locking.

Multi-lock adapter with keyed alike operation:
> For 6 EFL 3 and EFL 3C furniture locks

Other functions and special features:
> Transfer of feedback contacts (signalling the locking status of EFL 3 / EFL 3C furniture locks. A special macro is available for this application on request.)
> The additional potential free contact at the NC output port signals unlocked furniture locks and can be used by systems from other providers.
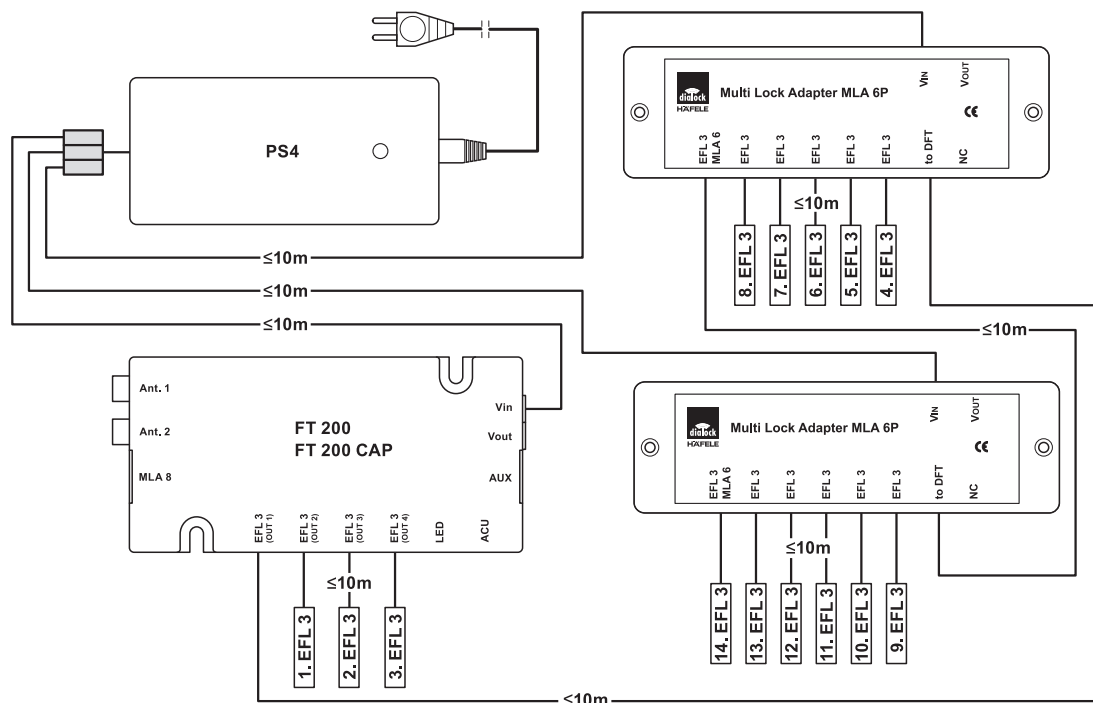
Notes concerning operation
> Note max. cable lengths, see CC 200 connection cable.
> Note connected loads of the system components.
> The system can be easily extended with an additional MLA 8 at a later date.
> Additional PS 4 power supply units are required, depending on the number of extensions or system size.

	Cat. No.
MLA 6P multi-lock adapter	237.59.032

Configure furniture components made to measure. **www.hafele.com**

→ CC 200 Connection cable

> Area of application:	For connecting an EFL 3 or EFL 3C furniture lock to the MLA 6P/MLA 8 multi-lock adapter or the FT 200 furniture terminal
> Version:	With mini plug and RJ10 plug
> Colour:	Black

Installation

Note max. cable lengths between electronic components and furniture locks.
The EFL 3 feedback contacts for monitoring can be polled through the FT 200 / FT 200 CAP terminals via macros.

Cable length m	Cat. No.
0.5	237.59.020
1.0	237.59.021
3.0	237.59.022
5.0	237.59.023
10.0	237.59.024

Order reference
One CC 200 connection cable is required for each EFL furniture lock.
These connection cables are only compatible with the EFL 3 (237.59.000) and EFL 3C (237.59.001) furniture locks of the new generation (see page 10.292).

→ AMP Extension cable for secondary side

> Area of application:	For extending cables with AMP plug, from PS 4 power supply unit to FT 200 furniture terminal or to MLA 6P/MLA 8 multi-lock adapters, and for extending the connection leads to EFL 1/EFL 1C, EFL 6 and EFL 41
> Version:	With AMP plug and AMP socket
> Colour:	Black

Cable length m	Cat. No.
2.0	823.28.327
5.0	823.28.351
10.0	823.28.360

→ V2 Connection cable

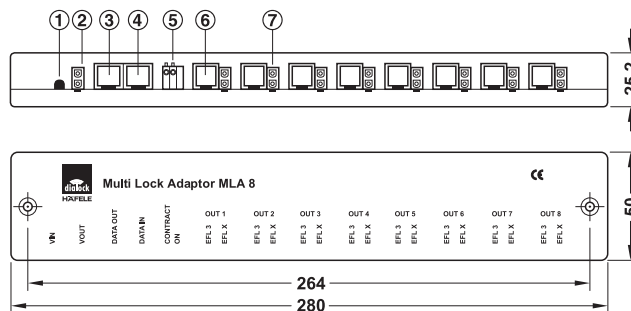|	
> Area of application:	For connecting an EFL 3 and EFL 3C furniture lock with the MLA 6P/MLA 8 multi-lock adapter or the FT 120 or FT 130 furniture terminal
> Version:	With RJ10 and Molex plug
> Colour:	Black

Cable length m	Cat. No.
0.5	237.56.340
1.0	237.56.341
3.0	237.56.343
5.0	237.56.345
10.0	237.56.349

Multi-lock adapter MLA 8
For all EFL furniture locks

> Keyed alike operation up to 16 MLA 8 possible*
> Keyed to differ operation max. 1 MLA 8 possible*
> LEDs for function control
> Separate power supply
* In this case (cascading), feedback is not possible in combination with the FT 200 furniture terminal!

① V_{in} (voltage supply)	⑤ Contact NC (for systems from
② V_{out} (output current)	⑥ For EFL 3 and EFL 3C 1–8
③ Data out (to other MLA 8)	⑦ LED 1–8 (control light)
④ Data in (from FT 200)	

> Area of application:	Electronic output extender for indoor use: For keyed alike, and/or keyed to differ EFL 3 / EFL 3C furniture locks
> Version:	Programming is carried out outside the furniture, LEDs for function control and error detection next to each of the 8 output ports
> Material:	Housing: Plastic
> Colour:	Housing: Light grey

The MLA 8 multi-lock adapter is the link between the FT 200 furniture terminal and the EFL 3 / EFL 3C furniture lock in cases where more than four furniture locks have to be actuated.
The MLA 8 multi-lock adapter uses the incoming data signal from the FT 200 furniture terminal and forwards it to the EFL 3 / EFL 3C furniture locks in the form of a pulse for unlocking/locking.

Multi-lock adapter with keyed alike operation:
> For 8 EFL 3, EFL 3C furniture locks
> For max. 16 MLA 8 connected in series (132 furniture locks)

Multi-lock adapter with keyed to differ operation:
> For 8 EFL 3, EFL 3C furniture locks
> Max. 1 MLA 8 (8 furniture locks) possible.

Technical data

Voltage supply	9.6–14.4 V DC
Current consumption max. (including EFL 3/ EFL 3C)	1240 mA
EFL 3 / EFL 3C connections	RJ10 – socket (8x)
FT 200 / FT 200 CAP connections	RJ11 – socket (1x)
Output current (each EFL 3 OUT)	<500 mA (12 V)
Own consumption	130 mA
Output current (total)	<1000 mA (12 V)
Feedback contact	12 V, 50 mA
Mains lead length	0.5 m (with AMP plug)
Data cable length	0.5 m (with 2 RJ11 plugs)
Operating temperature	0 – 50 °C

Other functions and special features:
> Combination of keyed alike and keyed to differ via FT 200 furniture terminal
> Transfer of feedback contacts (signalling the locking status of EFL 3 / EFL 3C furniture locks. A special macro is available for this application on request.)
> The additional potential free contact at the NC output port signals unlocked furniture locks and can be used by systems from other providers.

Notes concerning operation
> Note max. cable lengths, see CC 200 connection cable.
> Note connected loads of the system components.
> The system can be easily extended with an additional MLA 8 at a later date.

Supplied with
1 MLA 8 multi-lock adapter
1 mains lead
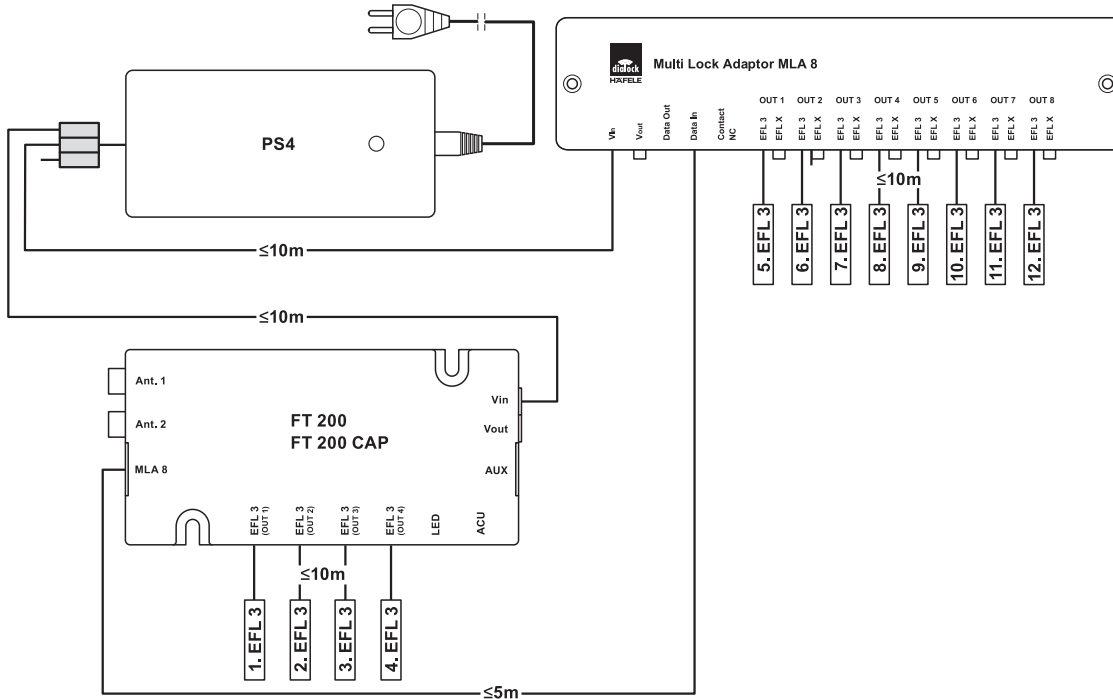1 data cable to FT 200

	Cat. No.
MLA 8 multi-lock adapter	237.59.030

Order reference
Please order fixing material (Hospa countersunk head screws 4 x 35 mm/4 x 55 mm) separately.

Electronic Access Control Systems

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→ CC 200 Connection cable

> Area of application:	For connecting an EFL 3 or EFL 3C furniture lock to the MLA 6P/MLA 8 multi-lock adapter or the FT 200 furniture terminal
> Version:	With mini plug and RJ10 plug
> Colour:	Black

Installation

Note max. cable lengths between electronic components and furniture locks.
The EFL 3 feedback contacts for monitoring can be polled through the FT 200 / FT 200 CAP terminals via macros.

Cable length m	Cat. No.
0.5	237.59.020
1.0	237.59.021
3.0	237.59.022
5.0	237.59.023
10.0	237.59.024

Note
The connection cables are only compatible with the EFL 3 (237.59.000) and EFL 3C (237.59.001) furniture locks of the new generation

Order reference
One CC 200 connection cable is required for each EFL furniture lock.

→ AMP Extension cable for secondary side

> Area of application:	For extending cables with AMP plug, from PS 4 power supply unit to FT 200 furniture terminal or to MLA 6P/MLA 8 multi-lock adapter, and for extending the connection leads to EFL 1/EFL 1C, EFL 6 and EFL 41.
> Version:	With AMP plug and AMP socket
> Colour:	Black

Cable length m	Cat. No.
2.0	823.28.327
5.0	823.28.351
10.0	823.28.360

→ Data cable MLA 8

> Area of application:	For connecting the MLA 8 multi-lock adapter with the FT 200 furniture terminal
> Version:	With 2 RJ11 plugs, cable lengths optional if the data cable (0.5 m) that is supplied with the MLA 8 multi-lock adapter is not suitable
> Colour:	Black

Cable length m	Cat. No.
0.5	237.56.360
1.0	237.56.361
2.0	237.56.362
5.0	237.56.365

6

Electronic Access Control Systems

CC 140 Distributor,
for EFL furniture lock with AMP plug

> Area of application:	Electric distributor for indoor use: For keyed alike EFL furniture locks with AMP plug
> Version:	With 1 AMP plug, with 6 AMP sockets
> Material:	Housing: Plastic
> Colour:	Housing: White

Distributor with keyed alike operation:
> For 6 EFL furniture locks with AMP plug

Notes concerning operation
> Please ensure that a sufficient voltage supply is provided.

Technical data	
Total length	155 mm
Cable length	90 mm

	Cat. No.
CC 140 distributor	823.28.780

PS 4 Power supply unit

> Area of application:	Voltage supply for furniture terminals, wall terminals, distributors and multi-lock adapters, suitable for the US market, because the requirements of the DoE Level VI directive are met
> Version:	Plug fit connection to output cable via AMP plug (3-way AMP plug on output port)

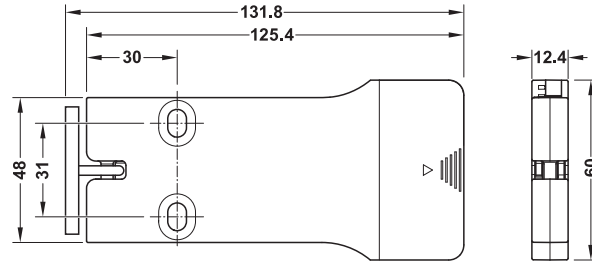| Technical data	
Input voltage	100–240 V AC, 50-60 Hz
Output voltage	12 V DC, regulated
Relative humidity	0–95 % (not condensed)
Mains lead length	2100 mm
Output cable length	1350 mm
Approvals	MM, CE, FCC, UL, Level VI, FWGB, Approved Medical Device
Operating temperature	0–45 °C

Supplied with
1 PS 4 power supply unit
1 mains lead with Euro plug
1 supplementary sheet "Safety notes"

(VI)

	Output current A	Dim. (L x W x H) mm	Cat. No.
PS 4 power supply unit	2.5	90 x 55 x 32	237.58.180

MB **6.40**

More reliable on the job. More clarity. Immediate delivery info. **www.hafele.com**

HÄFELE

Battery-operated EFL 30 furniture lock

> Area of application: Battery-operated, intelligent locker lock for indoor use: For wardrobes, lockers, compartment cabinets with doors made from wood, for sliding doors.
> Material: Housing: Plastic, locking bolt and locking component: Zinc alloy
> Colour: Black
> For door thickness: ≤19 mm

> Ideal for individual locking points and mobile furniture
> Integration into Dialock software or use of the Dialock Manager app for convenient configuration and administration of locking points and locking authorisations
> Slim and compact dimensions
> Integrated BLE module (Bluetooth Low Energy)

Technical data

Technology	Tag-It, Mifare Classic EV1, Mifare Desfire EV1/EV2
BLE (Bluetooth 5) integrated	For start-up and configuration with the Häfele Dialock Manager app for smartphones (available for iOS and Android)
Degree of protection	IP20
Batteries	2 x AAA battery, LR03, alkaline manganese, 1.5 V
Battery service life	Up to 20,000 cycles
Number of possible keys	≤1000
Operating temperature	0 °C to +55 °C
Humidity	10–95% not condensed
Read range	Card max. 38 mm; tag max. 28 mm
Minimum distance from EFL 30 to EFL 30	100 mm (vertical), 150 mm (horizontal) mounted.
Tensile load	1000 N
Dimensions (L x W x D)	126 x 61 x 13 mm
Approvals and certifications	CE (Europe), FCC (USA), IC (Canada), EN 61000-4-2 – level 3

Functionality:

Standard mode
User keys are allocated to one or several (optional) locks for locking and unlocking.
The lock remains open for 3 seconds after opening, and locks again automatically.
The door status (locked/open) can be identified with the feedback contact and additional macro with which an alarm can be triggered.
The open time can be adjusted to 1–30 seconds in the basic operation mode using the programming transponder.

Free choice of locker
Every user key can lock an open locker. When doing this, the user key is assigned to the selected locker, meaning that only this user key can unlock the locker again. When the locker is unlocked again, the assignment is deleted. The cabinet number is not stored on the user key.

Toggle mode (deadbolt lock function)
When an authorised transponder is held in front of the device, the lock unlocks and remains unlocked. When the user key is presented again, the lock is locked again.

Note
The EFL 30 / EFL 30C can be configured and operated in the stand-alone mode via the Dialock Manager app or as locking point in the Dialock Software using the programming card and clearing key card.
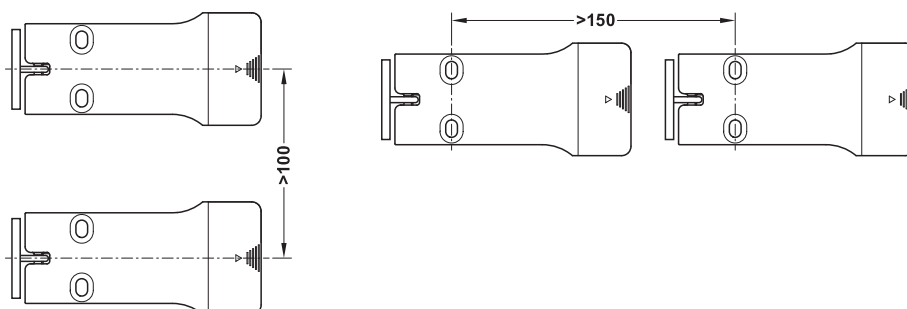
Notes concerning operation:
Please contact your responsible Häfele employee when using the Dialock software.

Note
In order to avoid interference between locks, a minimum distance of 100 or 150 mm must be maintained between installed locks. If the distance is less than this minimum, continuous communication will take place between the locks, which will drain the battery. In order to avoid unnecessary battery draining, do not insert the battery until start-up takes place.
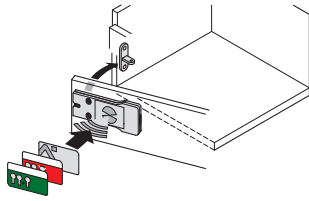For applications that require a smaller distance, the FT 200 can be used in combination with the EFL 3 instead.
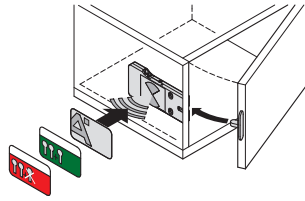
Electronic Access Control Systems
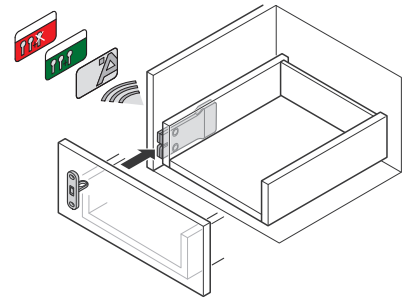
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28.04.2021
ID 2005

Installation

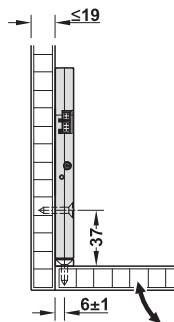| Installation of hinged door	Installation on cabinet	Installation on drawer

In order to unlock the EFL 30, the transponder card must be held against the hinged door

In order to open the EFL 30, the transponder card must be held against the side of the cabinet

In order to open the EFL 30, the transponder card must be held against the side of the cabinet

≤19

37

6±1

	Cat. No.
EFL 30 furniture lock	237.59.070
EFL 30C Furniture lock with additional feedback contact	237.59.071

Order reference
Available from the first quarter of 2021
Please order batteries (Cat. No. 910.54.986) separately.
Please order programming and clearing key card, Dialock Manager app licence or software separately.

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Electronic Access Control Systems

MB **6.42**

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