

# ekey home FS OM

## Product description

The *ekey home FS OM* is a biometric sensor terminal which records fingerprints via a RF line sensor manufactured by Authentec.

The finger scanner is to be operated together with the corresponding ekey home CP and has been conceived specifically to be mounted in standardized wall outlets. The scanner design allows it to be integrated into the switch range of the biggest European electrical switch manufacturers.



## Features

- 99 fingers can be recorded
- Bezel: pure white, aluminium and anthracite, available as accessories
- Its design can be adapted to the switch range of the biggest manufacturers.
- To be mounted into wall outlets diameter = 60mm, depth = 40mm compliant with DIN 49073
- May be used outdoors
- AC /DC power supply
- Operates only in combination with the corresponding ekey home CP (see „compatible control panels“)
- The bus termination can be deactivated directly on the device
- low FAR – high security
- Protection class IP54

## Item number

Discription	application field	fingers	Item #
ekey home FS OM <b>E</b>	electro	99	101148
ekey home FS OM <b>I</b>	integration	99	101310

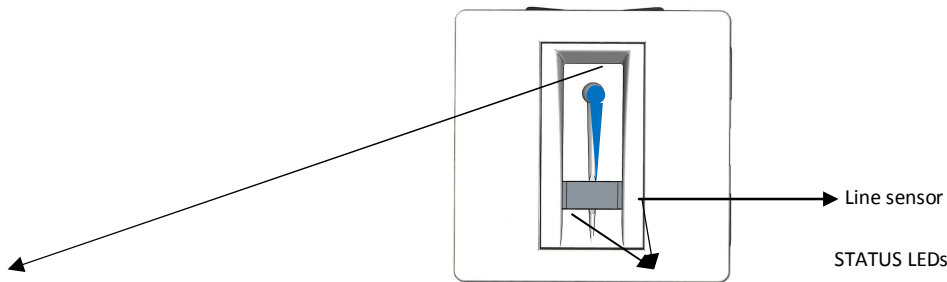
## Standards

The *ekey home FS OM* is compliant with the 2004/108/EG (CE) and 2002/95/EC (RoHs) guidelines

Applied standards	harmonized
EN 61000-6-2:2005	
EN 61000-6-3:2007	



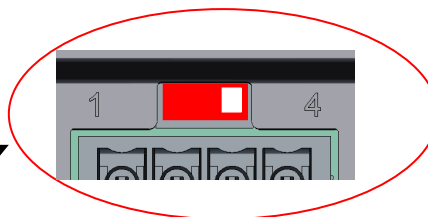
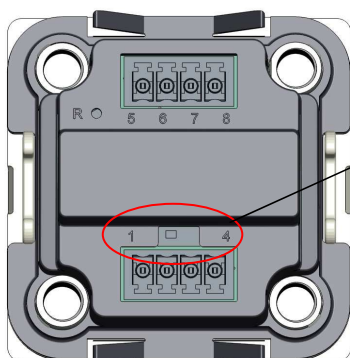
## Controls and visual indications



Display	Function LED	Signification of the indication
	Blue	The device is ready to read a finger. A finger may be swiped over the sensor.
	Blinking orange	The analysis and identification of an enrolled finger image is currently being done.
	Green	The finger has been identified and has been granted access. The door opens.
	Red	The finger has been denied access (reason: unknown finger)

Display	Status LED	Signification of the indication
	right off: left off:	Normal operation: there is an active data connection between finger scanner and control panel.
	right: blinking blue left: blinking blue	The data connection between finger scanner and control panel has been interrupted.
	right / left blinking red and green alternately	A software update is being done.

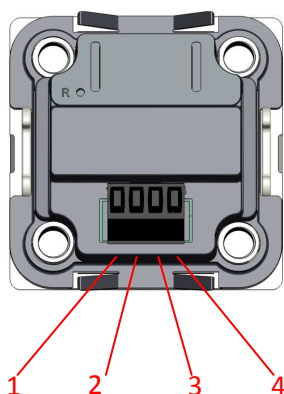
## Bus termination



**Switch setting left:** Bus termination = **off**  
 **Switch setting right:** Bus termination = **on**  
**(factory setting)**

## Pin assignment

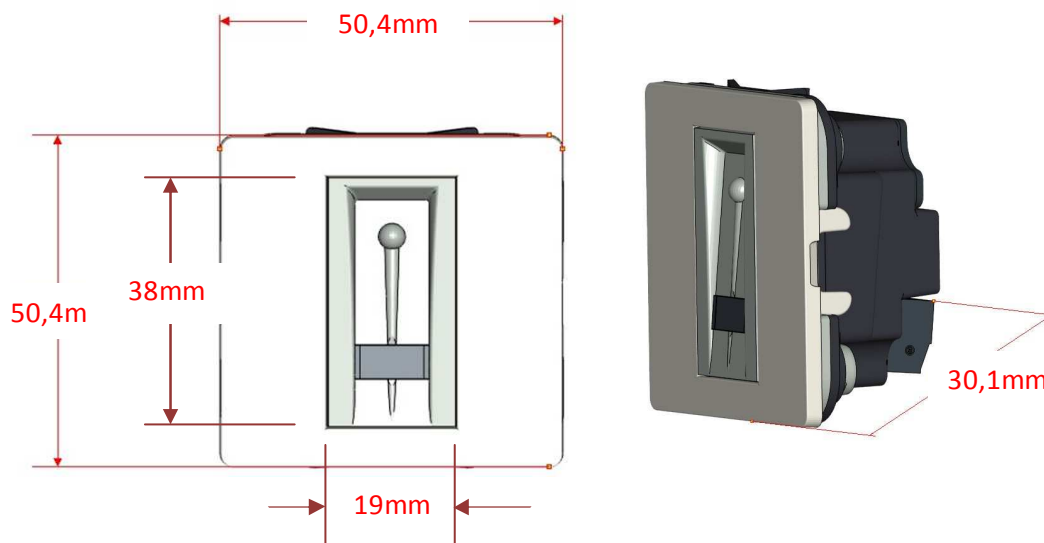
Finger scanner electrical connection via 4-pole push terminal RM 3.5



Clamp #:	Signal description	Recommended cable color (ekey standard)
1	RS485 (Clamp 1)	Green
2	RS485 (Clamp 2)	Yellow
3	Power supply (Clamp 3)	Brown
4	Power supply (Clamp 4)	white

## Dimensions

Dimensions in mm



## Cable recommendation

We recommend using the cable types below in your system:

**J-Y(ST)Y 3 x 2 x 0,6mm :** cable lengths up to 100m  
(over 50m use a double pair for the power supply)

**UNITRONIC® J-2Y(ST)Y 3 x 2 x 0,6 ST III BD:** cable lengths over 100m

(data connection only). For the power supply (clamps 3,4), a separate wire with a larger cross-section has to be installed, since the cross-section of these cable types is not big enough!

## Technical data

### Absolute maximum threshold value

Operating the devices beyond these values will destroy them !

Description		Unit	Values
Supply	AC	V	0-24
	DC	V	±30
Temperature range	Storage	°C	-20 up to +70
	Operation	°C	-20 up to +70

### Electrical characteristics







Description		Unit	Values
Operating voltage	AC	V	8-24
	DC	V	8-24
Current draw [12VDC] <sup>1</sup>	Idle mode	mA	85
	Matching	mA	90
Power input <sup>2</sup>	Idle mode	W	~ 1
	Matching	W	~ 1
Temperature range	Storage	°C	-20 up to +70
	Operation	°C	-20 up to +70
Memory		Finger	99
Security		FAR	1x 10 <sup>-6</sup>
		FRR	1,4x 10 <sup>-2</sup>
Protection class			IP33/IP43 depends on used wall outlets
Speed		s	1-4
Life time cycle		Finger scans	~ 10 million
Max. cable length RS485 bus (CLAMP 1,2) <sup>3</sup>		m	500
Max. length of the power supply cable (CLAMP 3,4) when operated in an industrial area		m	30
Dimensions LxWxD		mm	50 x 50 x 35mm
Mounting height		cm	155

1) The power input varies according to the operating voltage (the power input remains constant with variations of ±10%)





2) The power input varies ±10% within the whole operating voltage area

3) When using the recommended cables

## Accessories

Item description	Color	Picture	Item number
ekey OM bezel PW	pure white		101166
ekey OM bezel AL	aluminium		101167
ekey OM bezel AN	anthracite		101168
ekey OM adhesive frame	-		101169
ekey PS power supply 12VDC/2A DRM 4HP	white		100201
ekey PS power supply 12VAC/1.5A DRM 4HP	white		100203
ekey PS power supply 12VDC/1.5A OM	black		100204
ekey PS power supply 12VDC/1A OM	black		100202
ekey PS power supply 24VDC/2A DRM 4HP	white		100891

## Compatible control panels

Item description	Picture	Item number
ekey home 1 CP WM		100478
ekey home 3 CP WM		100479
ekey home 1 CP DRM		101162
ekey home 4 CP DRM multi (November 2010)		101163
ekey home 1 CP IN		18e
		18r
		20e
		20r
		24e
		24r
ekey home 2 CP IN		18e
		18r
		20e
		20r
		24e
		24r

**Subject to optical and technical modifications, any liability for misprints excluded.**