



# Orthos Personal Interlocks

# Versatile Orthos Personal Interlocks

Effective  
Precise  
Secure

Top security is not just a matter of checking whether a user has authorisation to enter. The highest degree of separation and authorisation checking must be achieved. Orthos electronically monitored security interlocks meet the highest security demands and provide optimal protection for sensitive building areas.

#### **Versatility**

The Orthos product series comprises all kinds of shapes, including round or rectangular personal interlocks for single passage or interlocks with a set of doors in a row, which can only be passed through in one direction.

#### **Orthos round or cubic PIL Personal Interlocks**

The degree of separation can be accomplished by means of body weight, sensors or an additional check point for identification in the middle of the interlock. Depending on the security requirements, the interlock may be equipped with contact mats, scales or

internal monitoring. Alternative versions for high-security areas include bullet- and burglar-resistant designs. The different variants are certified from RC2/WK2 up to WK4.

#### **Orthos PIL-M02 One-Way Corridor with only one direction of passage for airports**

This modular interlock controls the passenger flow at airports from airside to landside. Depending on the structural environment the individual half- and full-height swing doors may be combined in a way that the passage in the opposite direction or even the throwing through of hazardous objects is not possible. Various sensor packages to trigger alarms are available to detect unauthorised passages in the opposite direction or even objects that have been left behind.





Personaleingang



# Advantages of Orthos Personal Interlocks

Maximum security for sensitive areas.

## Orthos PIL round or cubic Personal Interlocks

- High level of security owing to contact mats
- Additional security through installation of scales with weight limit or actual weight
- Resistance classes RC2/WK2, WK3 and up to WK4 for cubic interlocks
- Optional wings and folding wing doors and automatic locking
- Optional fire door
- Optional emergency exit function
- Optional bullet- and burglary-resistance
- Elegant glass units
- Quiet, low-noise operation
- Minimal space requirement

## Orthos PIL-M02 One-Way Corridor

- Modular, adaptable system of half- and full-height swing doors
- Angled interlocks for impact resistance
- User-friendly passage also with luggage
- Low forces and a sensor system ensure a high level of personal safety
- Visual and acoustic alarm triggered on unauthorised passage in opposite direction
- Visual user guidance
- Transparent design



Interlocks with automatic drives and an appropriate passage width offer a barrier-free solution.



# The ideal solution for any access point



Single unit – minimal space requirement thanks to compact design



One-way corridor for in-bound passengers at the airport – quick, comfortable passage even with luggage

With integrated biometric system for maximum security

All-glass multiple unit in polished stainless steel design





## For maximum security in:

- Computer centres
- Research centres
- Nuclear power plants
- Banks and financial institutions
- Secured areas of government buildings, company buildings and airports
- Transition from airside to landside at airports

### Orthos round or cubic Personal Interlocks

Throughput rate = 3 to 5  
per minute

Security level = ●●●●●●

Comfort = ●●●○○○

### Orthos PIL-M02 One-Way Corridor

Throughput rate = 40 to 60  
per minute

Security level = ●●●●●●

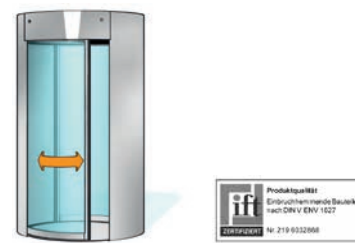
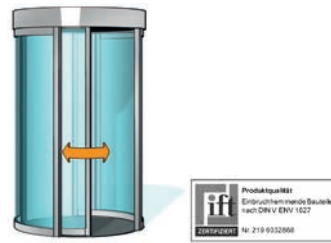
Comfort = ●●●●●●



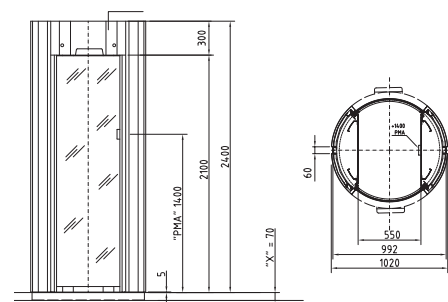
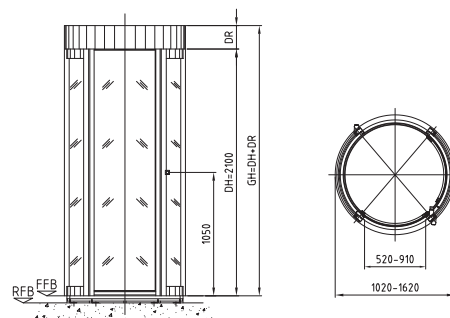




# Orthos Personal Interlocks



Standard units	PIL-S01	PIL-C01
<b>Construction</b>		
Outside diameter	1020, 1120, 1220, 1320, 1420, 1520, 1620	1020, 1220
Passage width	520, 580, 650, 710, 780, 840, 910	550, 680
Total height	2300	2400
Passage height	2100	2100
Upper part of body	200	300
<b>Body</b>	RC2 or without available. With glass panel, alternatively metal-clad. Including black rubber floor covering.	WK2, WK3 or without available. Metal-clad side panels with steel substructure. Lighting included (LED, 30,000 h service life).
<b>Sliding doors</b>	Made of light metal profiles with curved glass, flush-mounted outside.	Made of light metal profiles with curved glass, flush-mounted outside. Design according to chosen resistance class.
<b>Finish</b>	Powder-coated in a RAL colour.	Powder-coated in a RAL colour.
<b>Function</b>	Door leaves with locking system. Default position inside and outside closed. Automatic opening and closing of both door leaves consecutively. PMA emergency release switch inside the inter- lock, opens the outer door. Interior with surface light scanner for relaying, including 1-zone contact mat with black rubber floor covering. Light curtain for contactless protection. Inte- grated in the faceplate of the outside radius on both sides. Behaviour of the sliding doors in the event of a power failure can be freely selected. Standard setting: inside closed and locked, outside open. Behaviour of the sliding doors in the event of a power failure for burglary- and bullet-resistant option: outside closed and locked, inside open. PMA is replaced by a manual unlocking device inside the interlock.	Door leaves with locking system. Safety strips at the main closing edges that move with the door. Default position inside and outside closed. Automatic opening and closing of both door leaves consecutively. PMA emergency release switch opens the outer door. Interior monitored by sensor system (light scan- ner and 1-zone contact mat with black rubber floor covering). Behaviour of the sliding doors in the event of a power failure can be freely selected. Standard setting: inside closed and locked, outside open. Behaviour of the sliding doors in the event of a power failure for burglary- and bullet-resistant option: outside closed and locked, inside open. PMA is replaced by a manual unlocking device inside the interlock.
<b>Electrical equipment</b>	Network-compatible ETS 21 CAN bus control unit integrated in the unit. Power supply 230 VAC, 50 Hz.	Network-compatible ETS 21 CAN bus control unit integrated in the unit. Power supply 230 VAC, 50 Hz.
<b>Installation</b>	On stainless steel floor element with guide rail for sub floor level SFL, measure X = 70 - 79 mm.  The ambient conditions must be checked for outdoor installation.	On floor element for sub floor level SFL, measure X = 70 mm.  The ambient conditions must be checked for outdoor installation.



All dimensions in mm



# Options (depending on unit type)

**Note:** Increase access security using a 2-zone contact mat.  
Biometric verification and weight detection are possible.

	PIL-S01	PIL-C01
<b>Construction</b>		
Increase passage height.	•	
Increase upper part of body.	•	•
Thermal separation of body side panels in axis.	•	
Wall connection.	•	•
T30 fire protection, two leaves.	•	•
Manual unlocking devices for inner or outer door, installed on outer side of body.		•
Monitoring of sliding door for notification of status closed and locked.	•	•
<b>Finish</b>		
Stainless steel satin finish.	•	•
Anodised CO and C31-35 (E6).	•	
Silver anodised CO instead of powder-coated according to RAL colour.	•	•
<b>Electrical equipment</b>		
Consoles (1, 2 and 3) made of plastic or aluminium in colour of unit or in RAL 9006, also available as semi-gloss stainless steel with a smooth finish.	•	•
Consoles 4 and 5 made of semi-gloss stainless steel with a smooth finish.	•	•
Push button for manual single release.	•	•
Electric key-operated push button to release unit.	•	•
OPL 01 operating panel, functions can be chosen freely.	•	•
Magnetic contact for monitoring maintenance openings or ceiling plate.	•	•
Signal device consisting of 2 lights red/green.	•	•
Contact mats including rubber flooring with studded surface.	•	•
Light curtain for contactless protection (see project-specific risk assessment).	<b>Standard</b>	•
PIB emergency release button, PMI, PMB emergency release switch.	•	•
Various weight readings for access control (actual weight or weight limits).	•	•
Lighting by 2 LEDs.	•	<b>Standard</b>
Additional board to expand the existing inputs and outputs.	•	•
<b>Installation</b>		
Wall frame for pre-installation.		•
Base frame for raised floor.	•	•
Floor element made of stainless steel for pre-installation.	<b>Standard</b>	•

Passage sequence, see page 18.

Security level according to equipment, see page 17.

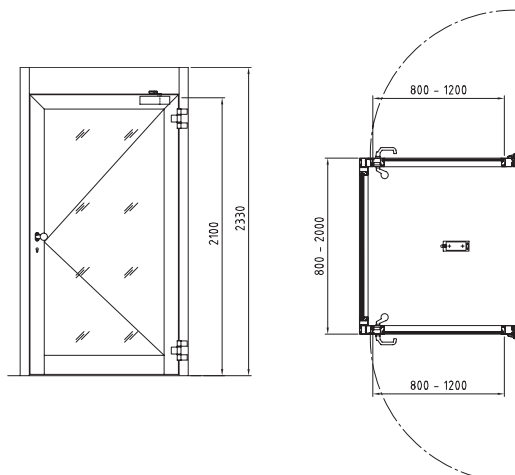
Drawings of options, see page 15.

ETS 21: parameterisable, potential-free messages to be processed on site, see page 17.

# Orthos Personal Interlocks



<b>Standard unit</b>	<b>PIL-M01</b>	
<b>Construction</b>	Upper section length	800 - 2000
	Passage width	800 - 1200
	Outer dimension	Depends on combination
	Total height	2330
	Passage height	2100
	Upper part of body	230
<b>Body</b>	Upper part of the body with dustproof covering and ceiling plate house the control and surveillance elements.	
	Outer door	Optional (hinge door, folding wing, sliding door, fire protection door) or on-site door.
	Inner door	Optional (hinge door, folding wing, sliding door, fire protection door) or on-site door.
<b>Finish</b>	Powder-coated in a RAL colour.	
<b>Function</b>	<p>Default position inside and outside closed.</p> <p>Release signals to activate the door from inside or outside provided on site.</p> <p>Release of the first door in entrance or exit direction. Release of the second door in entrance and exit direction, as soon as the first door has been automatically closed and locked.</p> <p>Interior with surface light scanner for relaying.</p> <p>Lighting can be installed.</p>	
<b>Electrical equipment</b>	ETS 21 CAN bus control unit integrated in the unit.	
<b>Installation</b>	With side walls on finished floor level FFL.	
	The ambient conditions must be checked for outdoor installation.	






All dimensions in mm



# Orthos PIL-M01 options

**Note:** Level of access security can be increased using a 2-zone contact mat, additional light barriers, biometric verification, Quattrovision (optical separation) and weight detection. Increase convenience using swing door drives.

<b>Construction</b>	
Increase upper part of body.	
Side wall consisting of aluminium profile with 8 mm laminated safety glass.	
Side wall consisting of aluminium profile in WK2 with P4A glazing.	
Swing door consisting of aluminium profile with 8 mm laminated safety glass.	
Swing door consisting of aluminium profile in WK2 with P4A glazing.	
Smokeproof swing door with 8 mm laminated safety glass.	
Magnetic clamp (locking force 5000 N) in addition to electrical door opener for outer or inner door.	
Fire door, T30 (EI-30) or T90 (EI-90) made of primed steel plate with viewing window in F30 or F90.	
Folding wing door with continuous profile system and sealing. 10 mm toughened safety glass.	
Floor element made of stainless steel for pre-installation.	
Base frame for raised floor.	
Floor covering with green or grey round zone marking Ø 300 mm in centre of interlock.	
Watertight wooden base plate for floor covering, height = 10 mm.	
Black rubber flooring with studded surface, height 5 mm, to be glued to prepared floor or concrete.	
<b>Function</b>	
Electromechanical drive (with return spring) for swing door (not suitable for fire doors).	
Electromechanical drive (with return spring) for swing door. Suitable for fire doors.	
Pre-assembled finger protection textile to be used in the swing door hinge (with self-retraction). 	
Sensor strip (light curtain) on inside and outside of door leaf that moves with the door. 	
Fixed light curtain on folding wing door. 	
Integrated door closer, hidden within the frame of swing door instead of lintel installation.	
Emergency and escape route module.	
Emergency exit functions for hinge door and folding wing door.	
<b>Electrical equipment</b>	
Installation preparation for on-site components.	
Consoles 4 and 5 made of semi-gloss stainless steel with a smooth finish.	
Emergency release button with various functions (PMB, PIB, PMA, PMI).	
Push button for manual single release.	
Key-operated push button or switch prepared for on-site profile half cylinder to install in flush-mounted box/surface mount housing or console.	
OPL 01 operating panel, functions can be chosen freely.	
Various surface mount housings and installation frames.	
Door glass pane with alarm function (trip wire alarm system, alarm wire, glass breakage detector).	
Magnetic contact message «closed» according to VDS «C» or bolt contact message «locked» for on-site processing of the swing door.	
Magnetic contacts for monitoring the maintenance openings.	
Signal device consisting of 2 lights red/green.	
Surface light scanner integrated in upper part of the body for additional monitoring of complete interlock interior.	
Contact mats including rubber flooring with studded surface.	
Ramp rail for contact mat on finished floor level FFL, on entrance and exit side.	
Various weight readings for access control (actual weight or weight limits).	
Lighting by 2 or 3 LEDs.	
Additional boards to expand the existing inputs/outputs.	

## Safety device

Passage sequence, see page 19.

Security level according to equipment, see page 17.

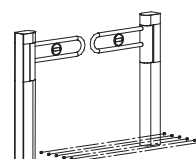
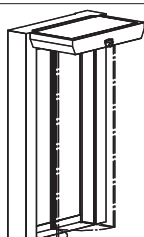
Drawings of options, see page 15.

ETS 21: parameterisable, potential-free messages to be processed on site, see page 17.

# Orthos PIL-M02 One-Way Corridor



Modular components	PIL-M02	PIL-M02 swing door unit
	<p>Quick motion double-leaved hinge door unit, can be combined with additional modules, including sensor system pack level A (MDR): securing of interlock corridor by means of motion detectors with directional identification as partition.</p>	<p>Charon HSD, quick motion two-winged swing door with fast blocking of return motion</p>
<b>Construction</b>		
Passage width	Approx 640 – 950 (standard 920).	According to portal width.
Total width	1076 – 1386 (as single unit).	903 – 1213
Total length	–	–
Total height	2300	900
Passage height	2100	–
Height of barrier element	–	820
Upper part of body	200	–
<b>Body</b>	<p>Self-supporting portal made of AISI 304 stainless steel. Glazing: 6 mm toughened safety glass. Control unit and maintenance opening at the top. Operating panel required (supplied by customer or OPL 02 optional).</p>	<p>Two half-columns (W = 130 mm/D = 90 mm) as drive housing, made of stainless steel, each with a U-shaped barrier element, Ø 27 mm including one-way passage signs on the entrance and exit side.</p>
<b>Finish</b>	Stainless steel satin finish.	Stainless steel satin finish.
<b>Function</b>	<p>The personal interlock manages the flow of persons in one direction (detection of return motion). Opening or closing pulse signals using radar motion detectors in both directions. Door area pivoting radius is monitored by means of light scanner. Signal device (arrow/cross pictogram Ø 90 mm) on the access side. The behaviour in the event of a power failure can be freely selected; either closed and locked or closed and unlocked. Duration of closing cycle &lt; 2 sec.</p>	<p>Can be combined with all side wall types. Servo-positioning drive: one direction electrically controlled, 90° opening in exit direction. Light curtain in the foot area prevents the opening and closing of the doors when a pedestrian is in the door pivoting radius. Monitoring of the door pivoting radius in front of the swing door unit using a sensor. Duration of closing cycle &lt; 1 sec.</p>
<b>Electrical equipment</b>	<p>Installed in the upper part of the body. Power supply 230 VAC, 50 Hz.</p>	Control units integrated in the housings.
<b>Installation</b>	On finished floor level FFL.	On finished floor level FFL.



All dimensions in mm





**PIL-M02 PGB Entry**

**PIL-M02 Glass Element 3750**

**PIL-M02 Glass Element 1908**

800  
895

3750  
2300

1908  
2300

Two Pedestrian Guiding Bars made of stainless steel tube Ø 40 mm, including mounting material. Alternatively PGB-E02 can be used.

10 mm toughened safety glass, floor rail at the bottom, cable duct for sensor cable at the top.

10 mm toughened safety glass, floor rail at the bottom, cable duct for sensor cable at the top. Reinforcement frame and edge protection.

Stainless steel satin finish.

Pedestrian guidance prior to reaching the activation sensors on the entrance side when single or multiple units are used, allowing flawless operation of the activation sensor system.

Stainless steel satin finish.

Solid glass side element to guide pedestrians and to separate the flow of people between two swing door units.

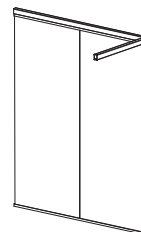
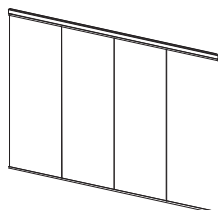
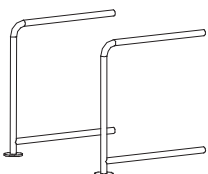
Stainless steel satin finish.

Solid glass side element to guide pedestrians and to separate the flow of people after the last swing door unit at the end of the interlock.

On finished floor level FFL and fixed to the portal.

On finished floor level FFL (floor levelness +/- 2 mm).

On finished floor level FFL (floor levelness +/- 2 mm).



# Options

## Orthos PIL-M02 One-Way Corridor

	PIL-M02 hinge door unit	PIL-M02 swing door unit	PIL-M02 PGB Entry	PIL-M02 Glass Element 3750	PIL-M02 Glass Element 1908
<b>Construction</b>					
Modification of passage width in the range of 640 - 950 mm.	•	•			
Projectile guard between two hinge door units as upper interlock partition.				•	
Stainless steel limiting plate fixed to the base of the glass wall on both sides inside the corridor.				•	•
Stainless steel limiting bar at bottom fixed on finished floor level FFL on both sides in the interlock.				•	
Pedestrian Guiding Bar for swing door unit.		•			
<b>Finish</b>					
Stainless steel and aluminium parts additionally plastic-coated according to RAL.	•			•	•
<b>Electrical equipment</b>					
Key-operated push button or switch prepared for on-site profile half cylinder to install in flush-mounted box/surface mount housing or console.	•				
Diagnostics tool TD 200 (intended for service and maintenance purposes).	•				
OPL 02 with key-operated push button: operating panel for installation in flush-mounted box with grey two-compartment installation frame.	•				
Sensor package level C (direction identifying motion detectors and vertical light scanner).	•			•	
Sequence flashing lights for portal: three stacked arrow-cross pictograms with LED.	•				
Voice module.	•				
Directional identification light strip installed at the end of the interlock, with additional projectile guard.	•				•
Directional identification 1 (EOR), 2 (EOR) and 3 (SOR) for single unit, directional identification 1 (EOR) for double unit and triple unit. Each with highest detection level.	•	•			•
Additional radar sensor for directional identification of passages in the opposite direction.	•			•	
<b>Installation</b>					
Whole assembly for factory acceptance test prior to installation.	•				
Substructure pre-installation.	•	•	•	•	•

Passage sequence, see page 18.

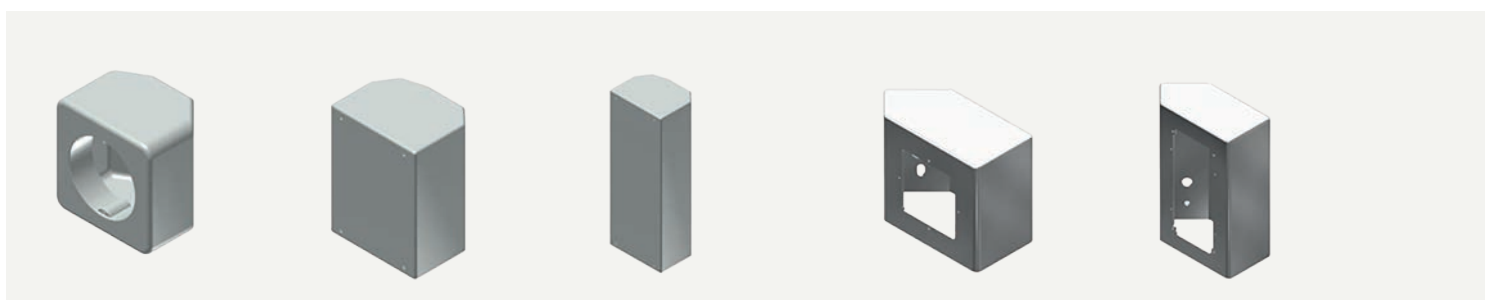
Security level according to equipment, see page 17.

Drawings of options, see page 16.



# Drawings of PIL options (PIL-S01, -C01, -M01)

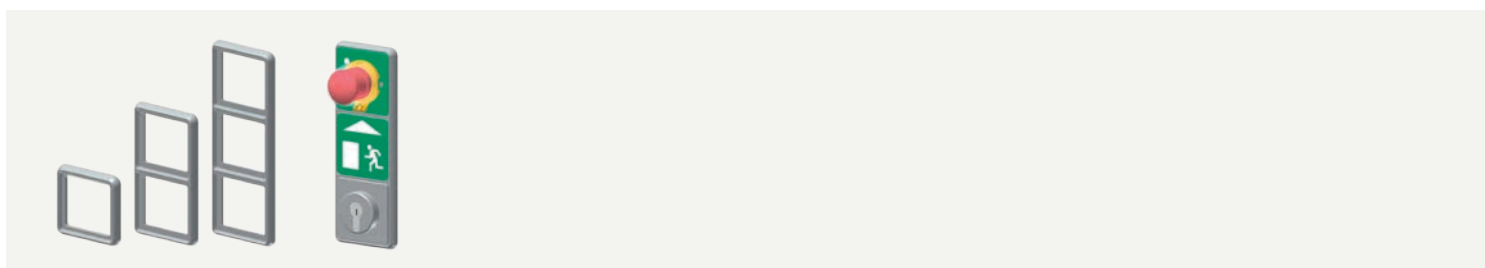
Console 1	Console 2	Console 3	Console 4	Console 5
Plastic in colour of unit or in RAL 9006	Aluminium in colour of unit or in RAL 9006	Aluminium in colour of unit or in RAL 9006	Stainless steel satin finish	Stainless steel satin finish



Width 94 mm	Width 140 mm	Width 140 mm	Width 118 mm	Width 118 mm
Height 94 mm	Height 180 mm	Height 365 mm	Height 93 mm	Height 164 mm
Depth 65 mm	Depth 110 mm	Depth 110 mm	Depth 60 mm	Depth 60 mm
PIL-C01	PIL-C01	PIL-C01	PIL-C01	PIL-C01
PIL-S01	PIL-S01	PIL-S01	PIL-S01	PIL-S01
PIL-M01	PIL-M01	PIL-M01	PIL-M01	PIL-M01

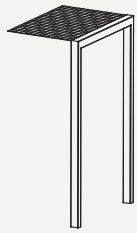


Electric key-operated push button in console	Release button	Signal device	Key switch	OPL 05
PIL-C01	PIL-C01	PIL-C01	PIL-C01	PIL-C01
PIL-S01	PIL-S01	PIL-S01	PIL-S01	PIL-S01
PIL-M01	PIL-M01	PIL-M01	PIL-M01	PIL-M01

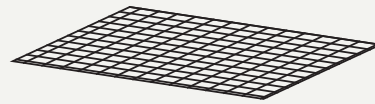


Frame for flush-mounting	Emergency escape route terminal
PIL-C01	
PIL-S01	
PIL-M01	PIL-M01

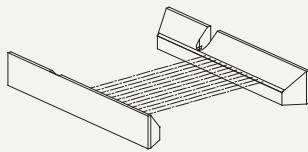
# Drawings of PIL-M02 options



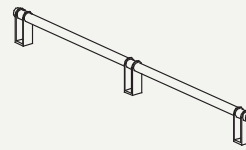
Light strip for directional identification



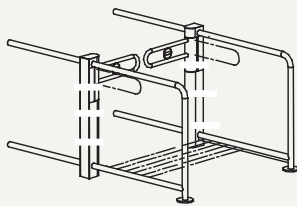
Projectile guard



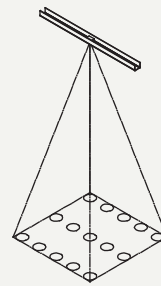
Limiting plate



Limiting bar



Pedestrian Guiding Bar for swing door unit.



Sensor package level C



OPL 02 with key-operated push button



# Security level according to equipment

Element	Degree of separation
Contact mat (1 zone)	--
Contact mat (2 zones)	low
Additional light barriers and light scanner	enhanced
Scales with one weight limit	increased
Scales with two weight limits	high
Scales, actual weight	very high
Scales, actual weight and biometrics	highest

## ETS 21: parameterisable, potential-free messages to be processed on site

There are five potential-free feedback messages in the mother board:

- Ready for entry
- Passage entry
- Ready for exit
- Passage exit
- Error

Additional feedback messages can be added by using additional I/O boards.  
Max. 6 potential-free messages for each additional I/O board.

For example:

- Blocked
- Generally released
- Emergency release switch
- Single release entry
- Single release exit
- Continuous release entry
- Continuous release exit
- Release disabled entry
- Release disabled exit
- Random generator on/off
- Random generator alarm
- Passage message entry
- Passage message exit
- Setup after power failure
- Setup from known position
- Ready for entry/exit
- Ready
- Home position
- Pulse for electromechanical counter
- Message service
- General error
- Error bus
- Cleaning inside
- Cleaning outside
- Single-door mode
- Sabotage inner door leaf
- Sabotage outer door leaf
- Interlock occupied
- Interlock occupied, both doors closed
- Inner door locked
- Outer door locked
- Pre-alarm
- Alarm
- Alarm suppression

Further messages available using parameterisation.

All parameters are described in detail in the online help for the control unit.

# Passage sequence

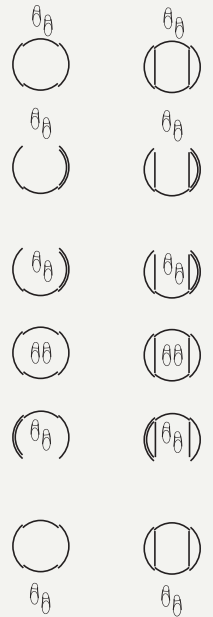
## Orthos PIL-S01 and -C01

- Passage sequence with card reader outside (biometric check possible)  
 Default position: interlock is closed and locked.
- Person granted authorisation from card reader.
  - Door is opened for authorised person.
  - Entrance into the cabin.
  - Door closes automatically.
  - Inside the cabin additional identification and measuring systems will be activated if installed.
  - Second door opens or person is rejected (leaves the interlock through the first door).
  - The last opened door closes automatically (starting position).

- Other passage sequences can be used (functions individually activated by ID card)
- automatic mode without centre reader
  - automatic mode with centre reader
  - comfort mode for disabled persons without centre reader
  - comfort mode for disabled persons with centre reader
  - material interlock
  - preferential mode entry or exit
  - single-door mode entry or exit

### PIL-S01

### PIL-C01



## Orthos PIL-M02

### Short unit

- Passage sequence:  
 Default position: Door leaves of swing door and barrier elements of the half-height swing door are closed.
- Person approaches door from the airside.
  - Full-height swing door opens.
  - Person enters the portal.
  - Half-height swing doors open.
  - Full-height and half-height swing doors close as soon as the person has passed the opening and monitoring sensors.
  - In case of an attempt to proceed in the wrong direction, the opposite direction sensors activate an alarm; the doors close while monitoring the closing edges.

### Long unit

- Passage sequence:  
 Default position: Door leaves of swing door and barrier elements of the half-height swing door are closed.
- Person approaches door from the airside.
  - Full-height swing door opens.
  - Person enters the portal.
  - Half-height swing doors open.
  - Full-height and half-height swing doors close as soon as the person has passed the opening and monitoring sensors.
  - The sequence of the landside doors corresponds to the airside-door sequence.
  - In case of an attempt to proceed in the wrong direction, the opposite direction sensors activate an alarm; the doors close while monitoring the closing edges.



---

## Orthos PIL-M01

---

with two hinge doors in basic version or with WK2, WK3 or T30/T90 (EI-30/EI-90) outer door

Passage sequence with card reader outside (biometric check possible)  
Default position: interlock is closed and locked.

- Person granted authorisation from card reader.
- Authorised person opens door.
- Entrance into the cabin.
- Door closes automatically.
- Inside the cabin additional identification and measuring systems will be activated if installed.
- Person opens second door or is rejected (leaves the interlock through the first door).
- The last opened door closes automatically (starting position).

---

with hinge door outside and folding wing inside, suitable for escape routes

Passage sequence with card reader outside (biometric check possible)  
Default position: interlock is closed and locked.

- Person granted authorisation from card reader.
- Authorised person opens door.
- Entrance into the cabin.
- Door closes automatically.
- Inside the cabin additional identification and measuring systems will be activated if installed.
- Second door opens automatically and the person leaves the interlock or the person is rejected (leaves the interlock through the first door).

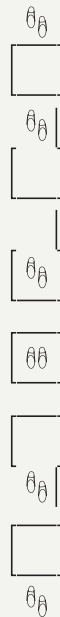
### Emergency escape route:

Triggered by emergency escape route terminal according to EltVTR or by fire alarm/hazard alert system. Inner folding wing door opens, outer hinge door has to be opened manually.  
Emergency exit equipment according to DIN EN 179.  
The customer or constructor has to apply for an "individual authorisation" from the highest building authority.

Other passage sequences can be used (functions individually activated by ID card)

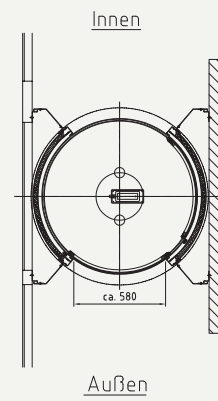
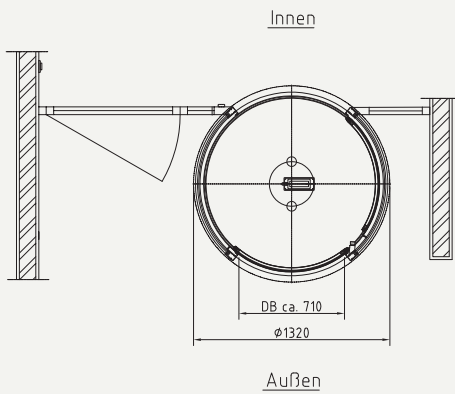
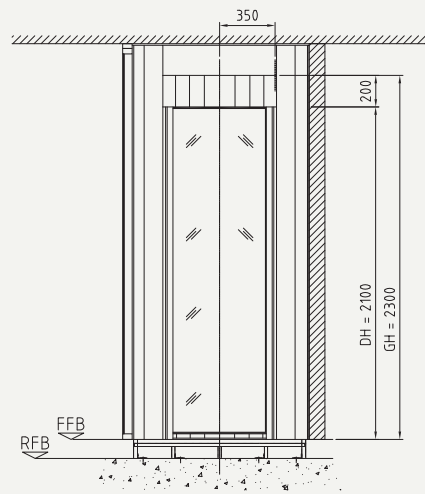
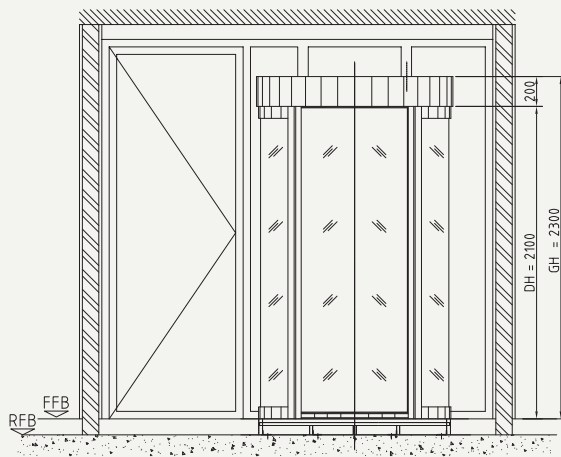
- automatic mode without centre reader
- automatic mode with centre reader
- comfort mode for disabled persons without centre reader
- comfort mode for disabled persons with centre reader
- material interlock
- preferential mode entry or exit
- single-door mode entry or exit

## PIL-M01

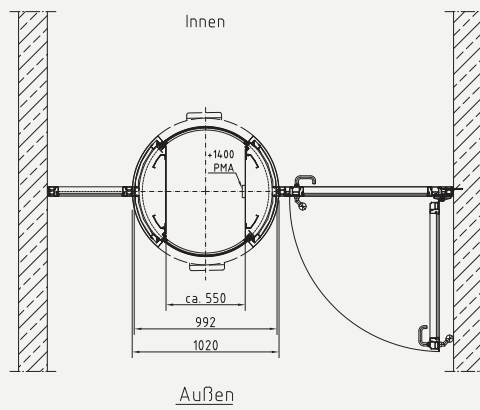
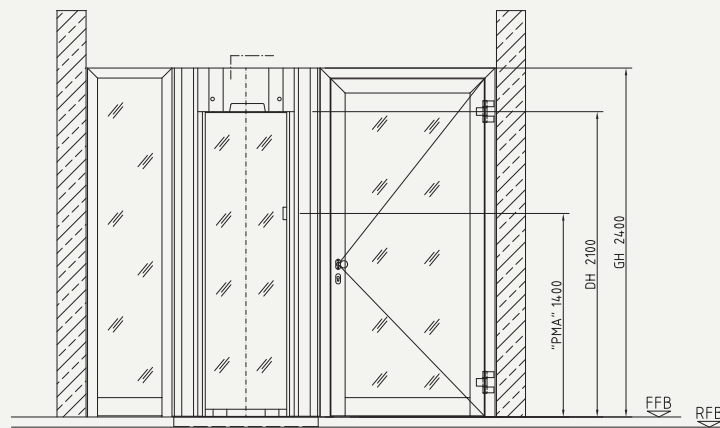


# Installation examples

## Orthos PIL-S01



## Orthos PIL-C01



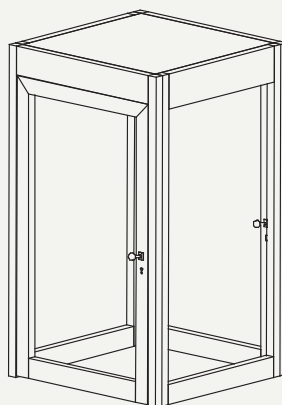
RFB	SFL
FFB	FFL
DH	PH
GH	TH
Innen	Inside
DB ca. 999	DB approx. 999
Außen	Outside



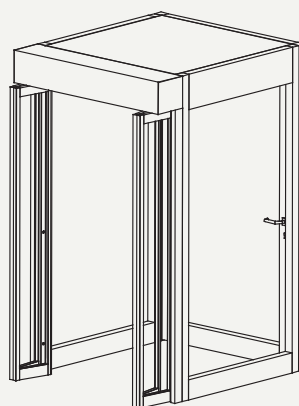
# Combination examples

## Orthos PIL-M01

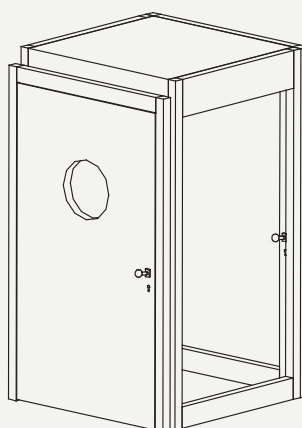
PIL-M01 with hinge door, basic version



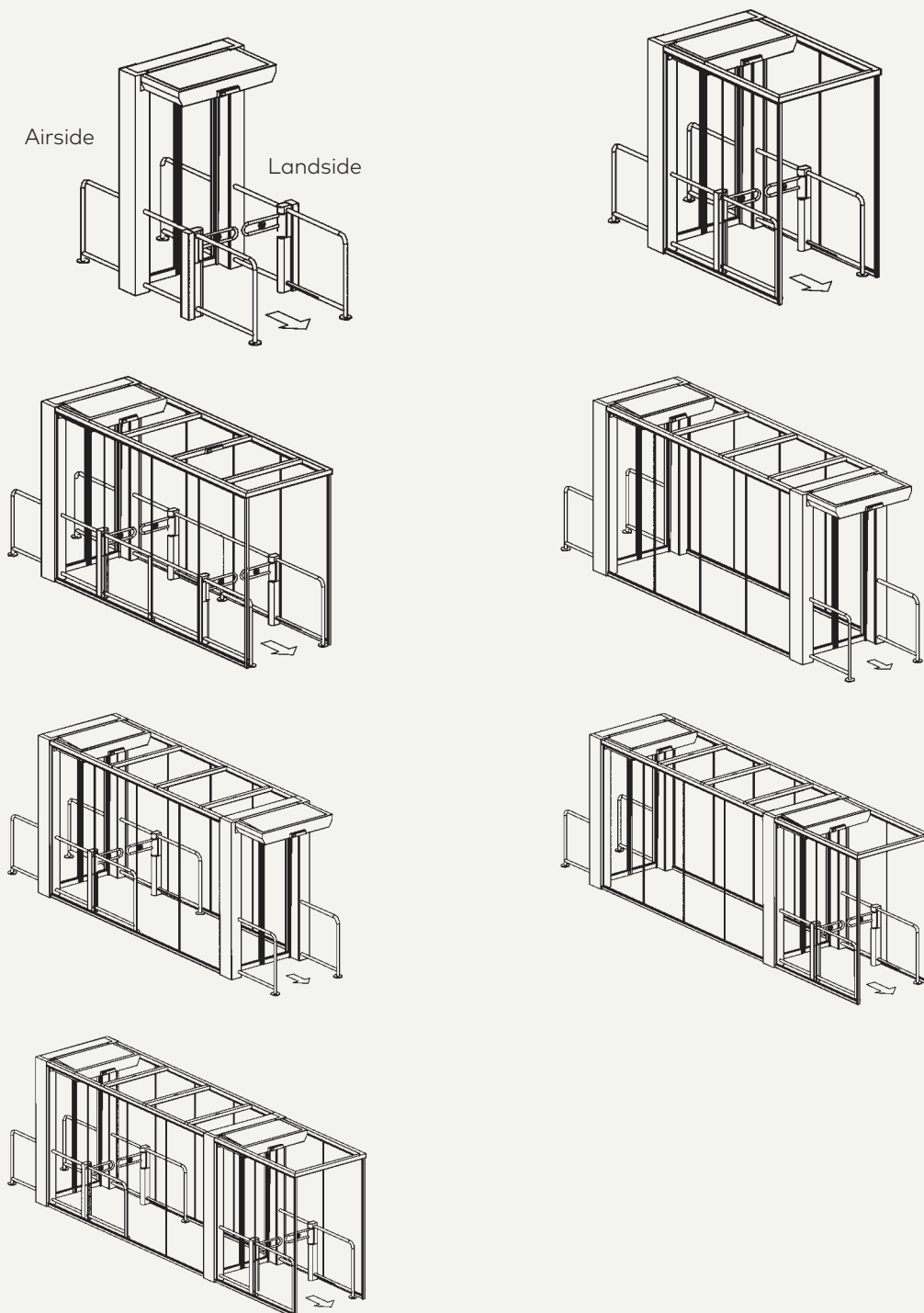
PIL-M01 with folding wing and hinge door, suitable for escape routes



PIL-M01 with hinge door, T30 (EI 30) outer door



**Orthos PIL-M02** different module combinations





---

AUB Limited  
Unit A, 12/F, Hung Mou Industrial Building,  
62 Hung To Road, Kwun Tong,  
Kowloon, Hong Kong,

Tel : +852 2375 6110  
Fax : +852 2406 2602  
Email : [enquiry@aub.com.hk](mailto:enquiry@aub.com.hk)  
[www.aub.com.hk](http://www.aub.com.hk)