



## Co146 Series REVOLVING DOOR

Automated Security Revolving Door with single passage checking system (tailgating and piggybacking detection systems).



Co146.160.N  
Co146.180.N  
Co146.230.N

# SELF-MANAGED REVOLVING DOOR SINGLE PASSAGE CHECKING SYSTEM

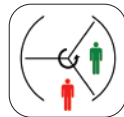
Automated High Security Revolving Door for simultaneous bi-directional traffic, it allows for users to enter and leave the building at the same time. It controls the single passage into each turnstile segment.

## SELF-MANAGED REVOLVING DOOR

Installed on site, directly on the existing floor.



REMOVABLE STRUCTURE



TAILGATING (SINGLE PASSAGE CHECKING SYSTEM)



PIGGYBACKING DETECTION SYSTEM



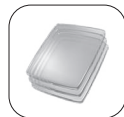
PRESENCE CHECKING THROUGH ULTRASONIC VOLUMETRIC SENSOR



ACCESS CONTROL SYSTEMS INTEGRATION



FB4 BULLETPROOF RES. STEEL STRUCTURE (on Co146.NB)



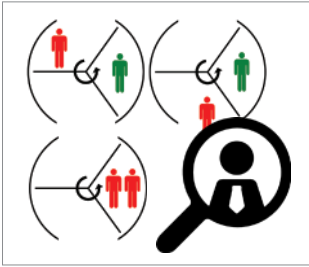
BULLETPROOF BURGLAR PROOF Certified glass according to EN1063:  
Turnstile glass: BR1/S and P4B  
Structure glass: BR2/S and P6B  
(optional: structure glass BR4/S)



Co146.NA/.NB Revolving Doors series, available versions:

Modello	Dimensions	Passage	Base	Door	Metal Detector	Glass	Turnstile	Structure	RC4 Certification
Co146.160.NA	Ø 1600 mm H 2325 mm Ø 5.2493' H 7.628'	W 660 mm H 2090 mm W 2.16535' H 6.857'	Without base	No	No	Int. BR1/S Est. BR2/S	3 wings	Steel	-
Co146.160.NB		Additional FB4 panels						-	
Co146.180.NA	Ø 1800 mm H 2325 mm Ø 5.9055' H 7.628'	W 750 mm H 2090 mm W 2.46062' H 6.857'				on request: Int. BR2/S Est. BR4/S Int. and Est. BR4/NS	3 wings or 4 wings (optional)	Steel	-
Co146.180.NB		Additional FB4 panels						-	
Co146.230.NA	Ø 2300 mm H 2325 mm Ø 7' 6,551" H 7.628'	W 1050 mm H 2090 mm W 3,4448' H 6.857'				4 wings	Steel	-	
Co146.230.NB		Additional FB4 panels					-		
Co146.180.ND	Ø 1800 x H 2325 Ø 5.9055' H 7.628'	W 750 mm H 2090 mm W 2.46062' H 6.857'				Int. and Est. BR2/S	4 wings	Reinforced sides and electric locks	YES
Co146.180.NE		Additional of internal and external FB4 panels							
Co146.230.ND	Ø 2300 mm H 2325 mm Ø 7' 6,551" H 7.628'	W 1050 mm H 2090 mm W 3,4448' H 6.857'				4 wings	Reinforced sides and electric locks	YES	
CO146.230.NE		Additional of internal and external FB4 panels							

“ The most harmonious access control solution for high flow prestigious places.



## FLOW MANAGEMENT SYSTEM

The door system **controls the single authorized passage in each turnstile segment**. At the same time the door sensors guarantee: tailgating and piggybacking detection, blocking the unauthorized persons and any kind of multiple accesses in the same turnstile partition.



## WITHOUT BASE

Removable structure, designed without base (floor). It can be directly installed on the existing floor. An elegant solution for entrances in: museums, hotels, shopping malls, airports, meeting centers, data centers, companies, industries, stadiums, etc.



## FB4 REINFORCED STRUCTURE

The Co146.NB doors are special versions with a reinforced structure thanks to additional bulletproof steel panels (FB4 grade according to EN 1522). All models can be equipped with 30/31mm BR4/S certified external glass according to EN 1063 (on request, optional).



## ACCESS CONTROL SYSTEMS

It is an **excellent solution as access control gate** for companies, meeting centers, museums, airports, hotels, etc., also for areas with restricted/conditioned access, thanks to the integration with badge/RFid readers, fingerprint acquisition & face detection systems or any other biometric solution (optional, mounted on external side or column).



## EQUIPMENT & ACCESSORIES

- Removable structure: installed on site, directly on the existing floor
- Person presence checking system with volumetric sensors
- Anti-taigating system: people detection, one following the other on different segments
- Anti-piggybacking system: two people detection, even if one takes in arms the other
- Portal management unit/console with program functions and LCD display
- Traffic light panels with intercom
- Multilingual voice messages
- Interfacing to access control systems / presence detection systems (RS485)
- Integration with badge readers or fingerprints acquisition systems (optional)
- Interior lighting: lights LED strips
- Emergency system: automatic unlocking system
- Mechanical lock for additional locking during the night-times
- Anti-drilling armored defender for key cylinder protection (optional)
- Reinforced steel structure with additional FB4 panels: on Co146.NB versions
- Rain cover: honeycomb PVC cover cap panel, UV resistant
- Reinforced upper cover: steel panel for cap protection (optional)

## VERSIONS

Three different versions: Co146.160 (Ø1600 mm), Co146.180 (Ø1800 mm), Co146.230 (Ø2300 mm).



Honeycomb PVC cover cap panel, UV resistant.



Steel panel for cap cover (optional).



Anti-drilling armored defender for key cylinder protection (optional).

## Co146 TECHNICAL FEATURES



**WEIGHT:** from 850 Kg to 1350 Kg ca. depending on version and accessories.



**POWER SUPPLY:** 100-240 V, 50-60 Hz.



**OPERATING VOLTAGE:** 24 V.c.c. with batteries for activity without power supply.



**TRANSIT CAPACITY:** at the standard speed of 4 turns per minute, the 3-wings turnstile guarantees a bidirectional flow of: 12 passages per min., while the 4-wings turnstile: 16 passages per min. (without alarms).



**STRUCTURE:** painted steel, supplied disassembled, to be assembled on site. The Co146.NB doors are equipped with additional bulletproof steel panels.



**PAINTING:** standard RAL colors with fine finish (glossy finish, stainless steel and special colors on request).



**PROGRAMMABLE FUNCTIONS:** emergency/block; automatic/manual transit; passage: mono/bidirectional.



**EXTERNAL GLASS:** side panels 53/64" 20/21mm bulletproof BR2/S and burglar proof P6B laminated glass (optional: 7/32" 30/31mm BR4/S and P8B).



**INTERNAL GLASS (turnstile):** laminated glass 35/64" 13/14mm BR1/S and P4A.



**CONSUMPTION:** Idle 50W, Turning (in motion) from 100 to 150W depending on the versions and accessories.



**MOVEMENT:** electromechanical drive by 24V DC motor with reversible movement of the turnstile in absence of supply voltage.



**LIGHTING:** interior compartment with 4 Led strips 12V-50/60Hz.



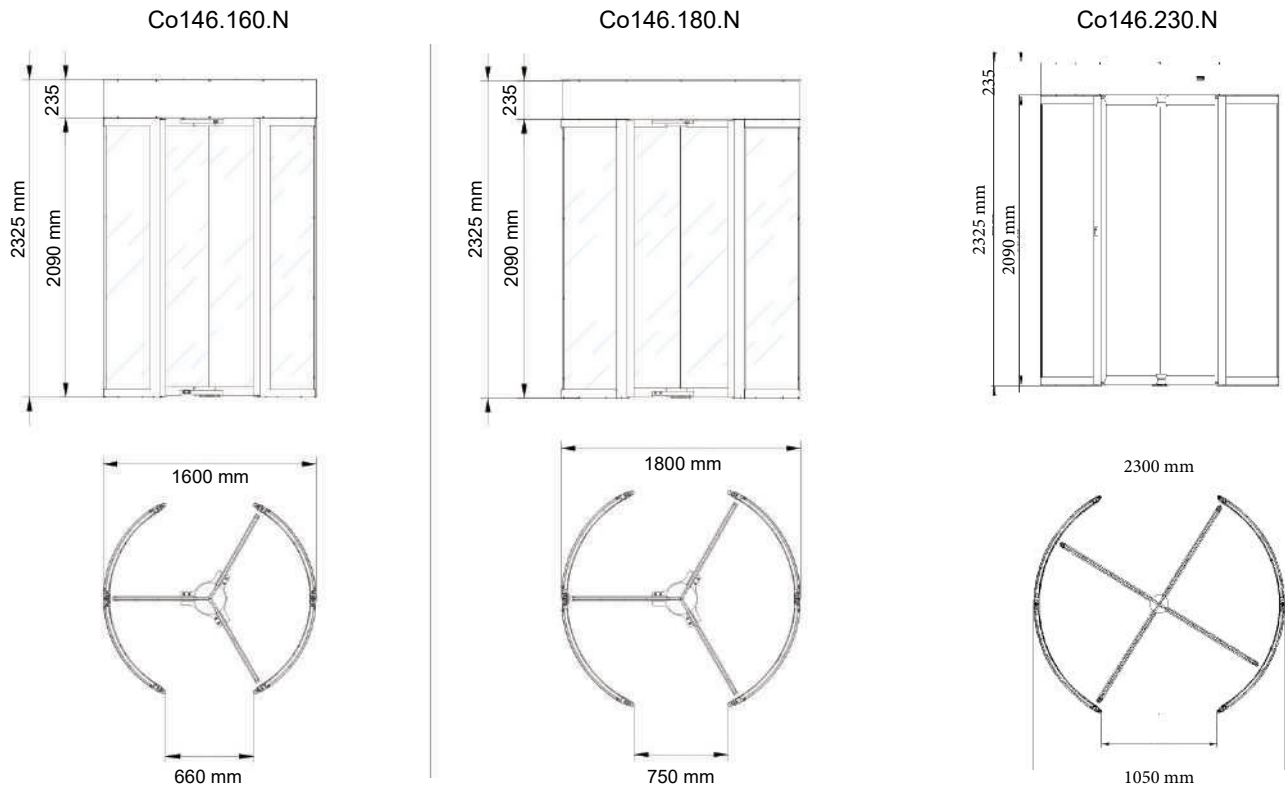
**ELECTRONICS:** control logic developed by CoMETA, microprocessor control and self-diagnosis.



**SAFETY / ACCIDENT PREVENTION:** sensitive electrical edges certified according to EN12978 (anti-crushing)

# DIMENSIONS SCHEMA

Co146.N model size data and perspectives.



## OPERATION MODES

	SITUATION	OPERATING MODE
	Authorized access request	The turnstile will rotate three times; if no access has been detected by the end of third rotation, the turnstile will stop in its standby position and a new access request must be made.
	Authorized access attempt during the third rotation after the access request.	The turnstile will stop and a vocal message will alert the user that access is unauthorized. The door will then begin a counter-rotation (clockwise) to allow the user to exit from the same side he entered. The door will eventually stop in its standby position.
	Authorized access (either from the same or the opposite side) while the turnstile is already rotating.	The turnstile rotation counter will reset and a new cycle of three rotations will start.
	Unauthorized access request.	The turnstile will not move.
	<b>Tailgating*</b> : unauthorized access attempt (either from the same or the opposite side) while the turnstile is already rotating.	The turnstile will stop and a vocal message will alert the user that access is unauthorized. The door will then begin a counter-rotation (clockwise) to allow the user to exit from the same side he entered. The door will eventually stop in its standby position.
	<b>Piggybacking*</b> : access attempted by two or more users in the same turnstile compartment.	The turnstile will stop and a vocal message will alert the user that access is unauthorized. The door will then begin a counter-rotation (clockwise) to allow the user to exit from the same side he entered. The door will eventually stop in its standby position.
	The user is about to be crushed due to the rotation, between turnstile edge and door frame.	The turnstile will immediately invert the direction of rotation to prevent contact and allow free movement.

Access requests can be made automatically (through presence detection sensors) or manually (through access control devices or push-button devices), depending on the customer's preference. The standard door transit program is bi-directional, meaning that the transit can be both outgoing and ingoing. The transit program can be modified at any time from the console settings. The door rotation is counterclockwise by default.

In the table is given a list of possible situations and the consequent modes of operation.

\*Anti-tailgating and anti-piggybacking are optional features, which must be requested upon order.

# REVOLVING DOORS COMPARISON

## Co146-Co147 SERIES

CoMETA Revolving Doors models comparison table.



Model	Dimensions	Passage	Door	Metal Detector	Floor base	Turnstile	Glass	Structure	Weight	RC4 Certification			
Co146.160.NA	Ø 1600 mm H 2325 mm Ø 5.2493' H 7.628'	W 660 mm H 2090 mm W 2.1654' H 6.857'	No	No	Without base	3 wings	Int: 13/14 mm (35/64") BR1/S - P4A	Steel	1873 / 2976 lbs	-			
Co146.160.NB		Additional FB4 steel panels						-					
Co146.180.NA	Ø 1800 mm H 2325 mm Ø 5.9055' H 7.628'	W 750 mm H 2090 mm W 2.4606' H 6.857'				4 wings (4 wings optional)	Ext: 20/21mm (53/64") BR2/S - P6B	Steel	-				
Co146.180.NB		Additional FB4 steel panels						-					
Co146.230.NA	Ø 2300 mm H 2325 mm Ø 7' 6.551" H 7.628'	W 1050 mm H 2090 mm W 3.4448' H 6.857'				4 wings	Int. and Est. BR2/S	Steel	850 / 1350 Kg	Reinforced sides and electric locks	Addition of internal and external FB4 panels	YES	
Co146.230.NB		Additional FB4 steel panels						-					
Co146.180.ND	Ø 1800 mm H 2325 mm Ø 5.9055' H 7.628'	W 750 mm H 2090 mm W 2.4606' H 6.857'				4 wings	on request: Int. and Est. BR4/S Int. and Est. BR4/NS	Reinforced sides and electric locks	1984 / 3086 lbs 900 / 1400 Kg	Addition of internal and external FB4 panels	Addition of internal and external FB4 panels		
Co146.180.NE		Additional FB4 steel panels						-					
Co146.230.ND	Ø 2300 mm H 2325 mm Ø 7' 6.551" H 7.628'	W 1050 mm H 2090 mm W 3.4448' H 6.857'				4 wings	Int: 13/14 mm (35/64") BR1/S - P4A	Reinforced sides and electric locks	1984 / 3086 lbs 900 / 1400 Kg	Addition of internal and external FB4 panels	Addition of internal and external FB4 panels		
Co146.230.NE		Additional FB4 steel panels						-					
Co147.180.DA	Ø 1800 mm H 2375 mm Ø 5.9055' H 7.792'	W 750 mm H 2090 mm W 2.4606' H 6.857'				2 doors	No	Without base	3 wings	Ext. & Door: 20/21mm (53/64") BR2/S - P6B	Steel	1984 / 3086 lbs 900 / 1400 Kg	-
Co147.180.DB										Additional FB4 steel panels			
Co147.180.SA	Ø 1800 mm H 2375 mm Ø 5.9055' H 7.792'	W 750 mm H 2090 mm W 2.4606' H 6.857'	1 door	Yes	Without base	3 wings	Int: 13/14 mm (35/64") BR1/S - P4A	Steel	1984 / 3086 lbs 900 / 1400 Kg	-			
Co147.180.SB								Ext. & Door: 20/21mm (53/64") BR2/S - P6B		Additional FB4 steel panels			

## CUSTOM VERSIONS

Available on request, **different kind of customization**. CoMETA is able to respond promptly to the customer needs and develop specific tailor-made projects. Versions Ø1600 and Ø2300 are on request / project.

- 4 wings internal turnstile for Co146 Ø1800 and Ø2300
- Integration with access control systems (badge, fingerprints)
- Special colors painting /finishing
- Higher security grade glass:
  - Structure glass: 30/31mm BR4/S bulletproof certification

## Certifications

**ISTITUTO GIORDANO**

**ENCEM**

**ACCREDIA**

**RAPPORTO DI PROVA N. 376994**

Cliente:  
**CoMETA S.p.A.**  
Via Leonardo Da Vinci, 118 - 50028 TAVARNELLE VAL DI PESA (PS) - Italia

Oggetto:  
**porta rotante motorizzata denominata "Co146.230"**

Attività:  
**resistenza all'effrazione e classificazione (resistenza sotto carico statico e resistenza all'azione manuale di effrazione) secondo le norme UNI EN 1627:2011, UNI EN 1628:2016 ed UNI EN 1630:2016**

Risultati:  
**RC 4**

[\*] secondo le dichiarazioni del cliente.  
Belforte-Igna Marina - Italia, 13 novembre 2020

L'Amministratore Delegato  
(Dott. Arch. Sara Lorenza Giordano)

Il Responsabile Tecnico  
(Dott. Daniele Zecca)

Il Responsabile del Laboratorio di Security and Safety  
(Dott. Andrea Bruschi)

**ISTITUTO GIORDANO**

Relazione tecnica n. 376994 del 13 novembre 2020 Pagina 2 di 2

**Descrizione dell'oggetto\***  
L'oggetto in valutazione è costituito da una serie di porte rotanti motorizzate riconducibili al prototipo sottoposto a prova per la resistenza all'effrazione secondo le norme UNI EN 1627:2011, UNI EN 1628:2016 ed UNI EN 1630:2016. Nella tabella seguente sono riportate le caratteristiche del prodotto provato e quelle relative ai prodotti oggetto di valutazione.

Denominazione	Diametro esterno [mm]	Altezza totale [mm]	Altezza di passaggio [mm]	Larghezza di passaggio [mm]	Tipo di azionamento	Elettropistoni [n.]	Classe dei vetri
Co146.230*	2300	2325	2090	1050	Elettromeccanico	2+2	P6B
Co146.160	1600	2323	2090	660	Elettromeccanico	2+2	P6B
Co146.180	1800	2323	2090	750	Elettromeccanico	2+2	P6B

[\*] prodotto sottoposto a prova, i cui dati sono riportati nel rapporto di prova n. 376994 emesso da Istituto Giordano in data 13 novembre 2020.

**Riferimenti normativi**

Norma	Titolo
UNI EN 1627:2011	Porte pedonali, finestre, facciate continue, inferriate e chiusure oscuranti - Resistenza all'effrazione - Requisiti e classificazione

[\*] in deroga alla norma UNI EN 1627:2011 per quanto riguarda il tipo di apertura dell'oggetto.

**Modalità**

Riferimento normativo	Attività	Descrizione
allegato D "Campo di applicazione" della norma UNI EN 1627:2011	valutazione da parte di esperti di laboratorio per l'estensione dei risultati	esame approfondito della richiesta del cliente e della documentazione tecnica fornita, riportata in allegato, nonché dei risultati di prova riportati nel rapporto di prova n. 376994 del 13 novembre 2020

**Risultati**  
Gli esperti di laboratorio ritengono che le variazioni proposte dal produttore, cioè la riduzione del diametro e della larghezza di passaggio rispetto al prodotto provato, non comportino variazioni nella resistenza all'effrazione. Questo documento da solo non deve essere considerato un certificato di conformità.

[\*] secondo le dichiarazioni del cliente, Istituto Giordano declina ogni responsabilità sulle informazioni e sui dati forniti dal cliente che possono influenzare i risultati.

Il Responsabile Tecnico (Dott. Daniele Zecca)

Il Responsabile del Laboratorio di Security and Safety (Dott. Andrea Bruschi)

All the certifications constitute a valid reference point for those who demand high performance, quality and reliability. CoMETA achieved important international certifications.

**Product certifications:** CoMETA products are **always tested** by our internal testing department and certified by Qualified Organizations on specific anti-burglary grades (following regulations and laws).

**Burglar proof levels** are tested in accordance with international standards, on: external structure, glass, security locks, security doors and protection elements.



CoMETA achieved important international certifications: ISO9001 certified quality systems, OHSAS18001 occupational health and safety assessment series, ISO14001 environmental management system.

## CoMETA S.p.A.

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