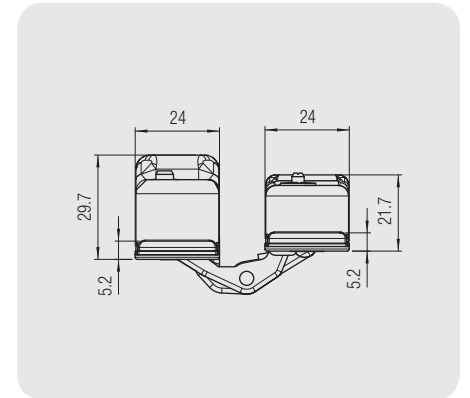
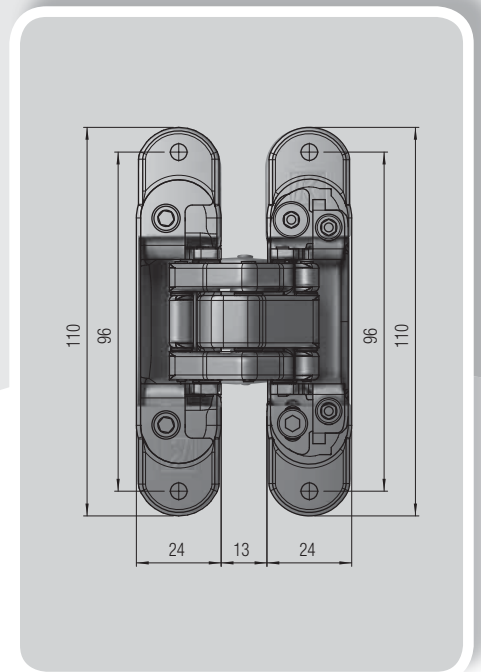


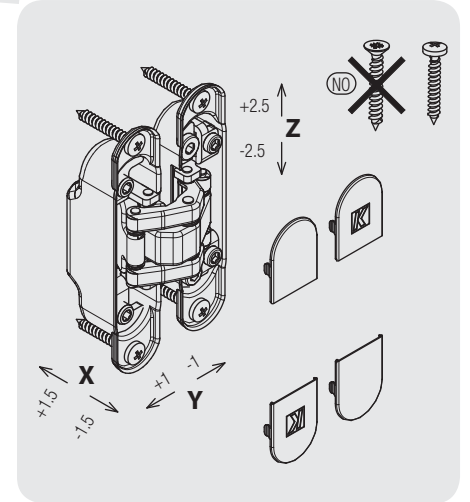
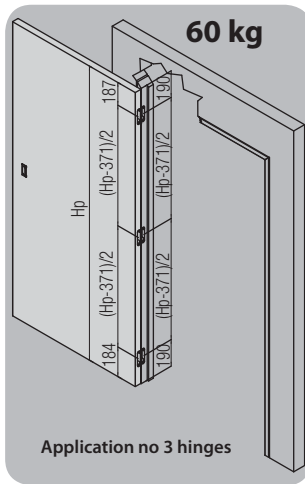
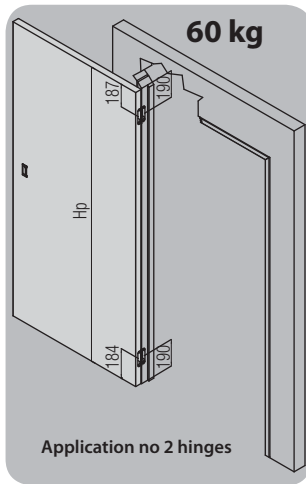
# Atomika SLIM K8060

PATENTED

Version  <b>STEEL</b>	Finishing 	 min. 32 mm	Adjustments 
 <b>60 kg</b> (2 hinges)	COVER 	 180°	 Fixing screws
 Test report N° 18-000602-PR02 - 20/11/2018 UNI EN1191:2012 Windows and doors Resistance to opening and closing Internal door with hinges mod. ATOMIKA K8060 Slim Total door weight: 60kg			



**Warning! The hinge fastening is only guaranteed using the screws provided with it.**



K8060 - 60 Kg - N° 2/3 hinges	
2000	60 60 60 60 60 60 60 60 60 60 58 56
1950	60 60 60 60 60 60 60 60 60 60 59 56 54
1900	60 60 60 60 60 60 60 60 60 60 57 55 53
1850	60 60 60 60 60 60 60 60 58 56 53 51
1800	60 60 60 60 60 60 59 56 54 52 50
1750	60 60 60 60 60 60 57 55 53 51 49
1700	60 60 60 60 60 58 56 53 51 49 47
1650	60 60 60 60 60 57 54 52 50 48 46
1600	60 60 60 60 58 55 52 50 48 46 44
1550	60 60 60 59 56 53 51 49 47 45 43
1500	60 60 60 57 54 52 49 47 45 43 42
1450	60 60 58 55 52 50 48 45 44 42 40
1540	60
	926 700 800 900 950 1000 1050 1100 1150 1200 1250 1300
	Door width (mm)

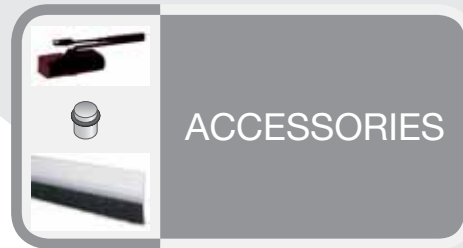
- Tested on doors: thickness min. 32 mm - height max. 2100 mm - width max. 900 mm.  
 - The application of the concealed hinges combined with other devices (door closers, bumpers, anti panic handles) has to be tested by the client.

A large, light gray wavy graphic that curves across the top of the page, transitioning from a darker gray on the left to a lighter gray on the right.

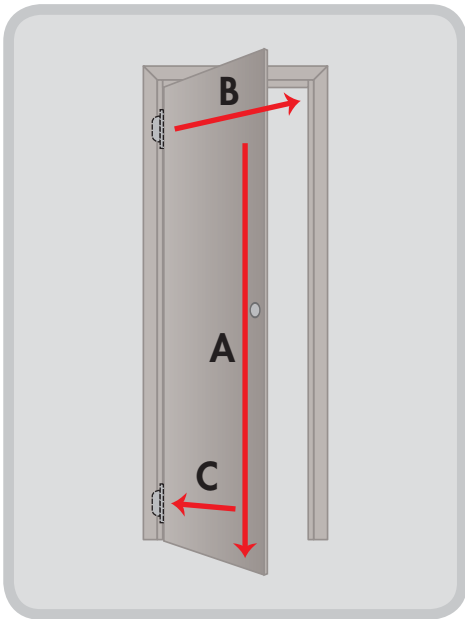
## ***FOREWORD***

IN ORDER TO IDENTIFY THE CORRECT HINGE FOR YOUR DOOR INSTALLATION THERE ARE VARIOUS FACTORS TO TAKE INTO ACCOUNT FOR ITS EFFICIENT FUNCTIONING OVER TIME. THE FOLLOWING WILL EXPLAIN SOME KEY POINTS TO CONSIDER AND COVER THE FUNDAMENTALS.

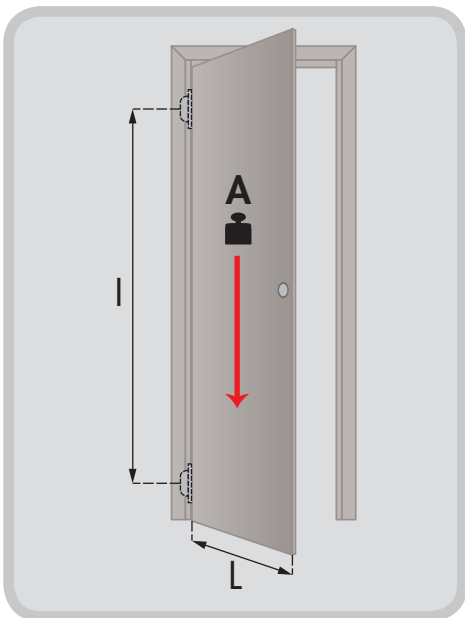
# THE FACTORS THAT INFLUENCE THE HINGE CHOICE AND ITS POSITION / INSTALLATION



## MECHANICAL STRESS THAT AFFECTS THE INSTALLED HINGES



- A - DOOR WEIGHT
- B - UPPER HINGE PULLING
- C - LOWER HINGE PUSHING



In other words the mechanical impact on the hinges is caused by:

- 1 - Door weight
- 2 - Door width
- 3 - Hinge to hinge distance (HINGE SPACING)

The hinge undergoes a major influence by:

- 1 - Increasing the door weight (A)
- 2 - Increasing the door width (L)
- 3 - Reducing the hinge spacing (I)

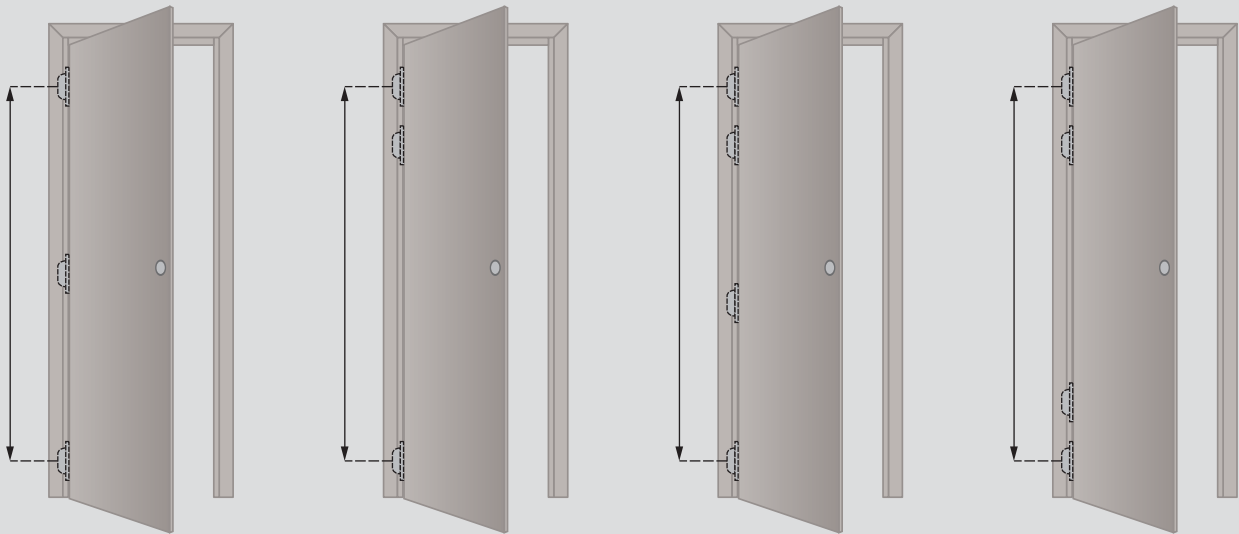
# IT IS ESSENTIAL TO DEFINE THE NUMBER OF HINGES TO INSTALL AND THEIR SPACING FOR A CORRECT APPLICATION



## WHAT IS HINGE SPACING?

HINGE SPACING is the distance between the upper hinge and the lower hinge centre in the door (regardless of the use of any other hinges installed besides these ones)

For example:



The hinge spacing affects the hinge capacity



The smaller is the hinge spacing, the lower is the door capacity

The hinge capacity is inversely proportional to the door width



The wider the door, the lower the hinge capacity

By increasing the hinge spacing you can counterbalance the horizontal load of a door.  
(It is necessary to know the door weight and width)

**Example with 2 hinges K2400 (40 kg)**

The graph shows that 2 hinges have a capacity of 40 kg with a standard test door 900 mm wide with hinge spacing 1550 mm.

⚠ By increasing the door width up to 1000 mm the hinge capacity gets reduced to 37 kg.

Hinge spacing (mm)	926	700	800	900	950	1000	1050	1100	1150	1200	1250	1300
2000		40	40	40	40	40	40	40	40	38	37	
1950		40	40	40	40	40	40	40	40	39	38	36
1900		40	40	40	40	40	40	40	40	38	37	35
1850		40	40	40	40	40	40	40	39	37	36	34
1800		40	40	40	40	40	40	40	39	38	36	35
1750		40	40	40	40	40	40	40	38	37	35	34
1700		40	40	40	40	40	39	37	36	34	33	31
1650		40	40	40	40	40	38	36	35	33	32	31
1600		40	40	40	40	38	37	35	33	32	31	30
1550		40	40	40	39	37	36	34	32	31	30	29
1500		40	40	40	38	36	34	33	31	30	29	28
1450		40	40	39	37	35	33	32	30	29	28	27
1540	40											

In order to get a 40 kg hinge capacity with a door width 1000 mm it is necessary to increase the hinge spacing to 1700 mm.

## HOW TO INTERPRET THE PRODUCT PROFILES

Each hinge has a table in its profile with indications how to determine the correct hinge spacing.

Hinge spacing (mm)	926	700	800	900	950	1000	1050	1100	1150	1200	1250	1300
2000		40	40	40	40	40	40	40	40	38	37	
1950		40	40	40	40	40	40	40	40	39	38	36
1900		40	40	40	40	40	40	40	40	38	37	35
1850		40	40	40	40	40	40	40	39	37	36	34
1800		40	40	40	40	40	40	39	38	36	35	33
1750		40	40	40	40	40	40	38	37	35	34	32
1700		40	40	40	40	40	39	37	36	34	33	31
1650		40	40	40	40	40	38	36	35	33	32	31
1600		40	40	40	40	38	37	35	33	32	31	30
1550		40	40	40	39	37	36	34	32	31	30	29
1500		40	40	40	38	36	34	33	31	30	29	28
1450		40	40	39	37	35	33	32	30	29	28	27
1540	40											

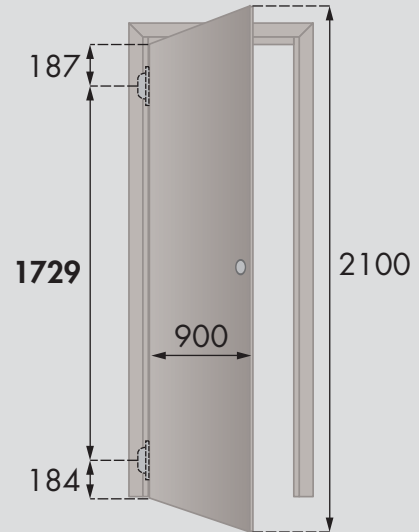
The technical details such as hinge spacing, capacity and door width applied in our labs to perform the tests determine the features. Our tests are performed at IFT certified test-rigs and following EAD 020001-01-0405 test standards.



# INSTALLATION EXAMPLES

## 2 HINGES

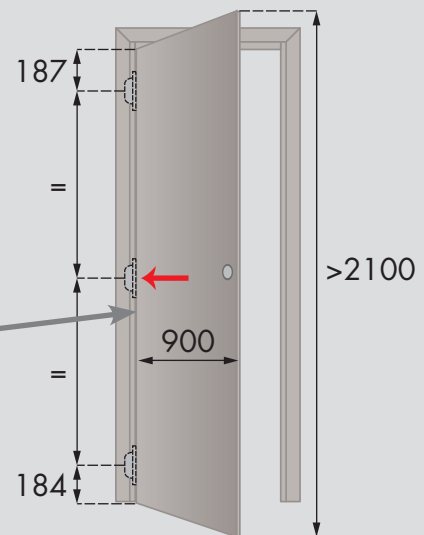
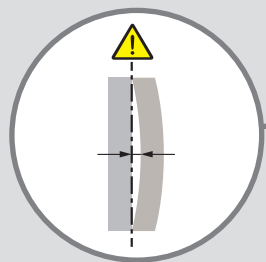
Standard position indications



## 3 HINGES

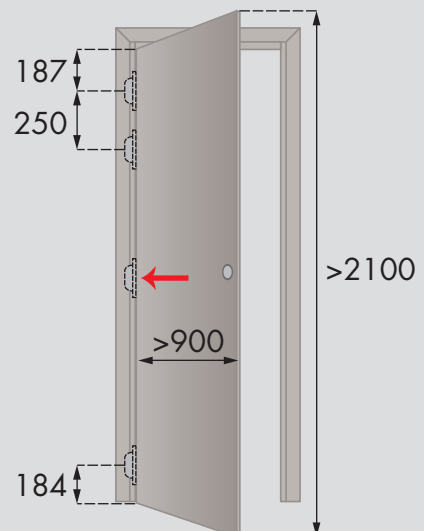
The central hinge maintains the straightness of the door leaf, i.e. it prevents it from bending in case of:

- 1 - Doors higher than 2100 mm
- 2 - Humid environment
- 3 - Light materials and/or thin doors
- 4 - Separated areas with different temperatures



## 4 HINGES


For higher / wider / heavier doors and/ or for high frequency use (eg public places such as schools, hospitals, airports, etc.)

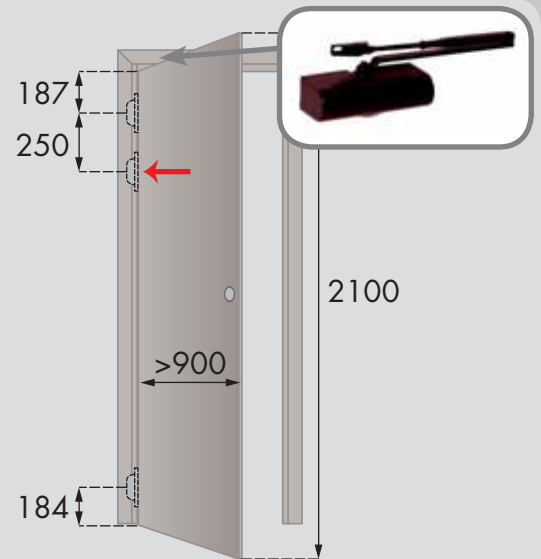


# EXAMPLES OF INSTALLATION WITH ACCESSORIES

## With an overhead door closer 3 HINGES


For applications with a door closer and in case of the door widths over 900 mm, it is suggested to fit the third hinge in the upper part of the door (consult the capacity table for each model)

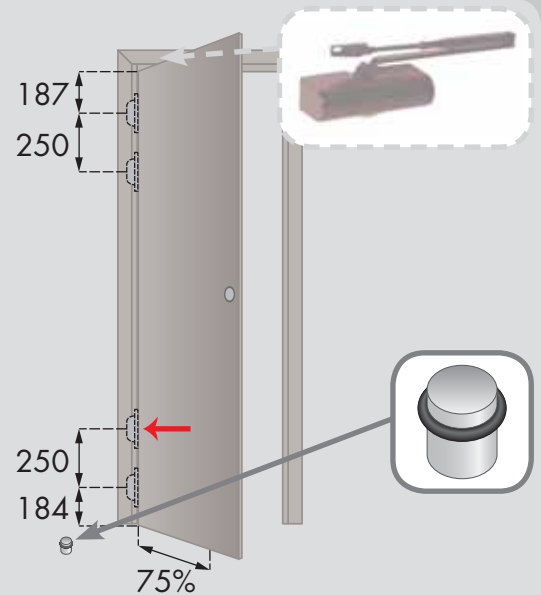
 The door closer adjustment must be as slight as possible but sufficient for its functioning. The major force could affect the hinges.



## With a doorstop 4 HINGES

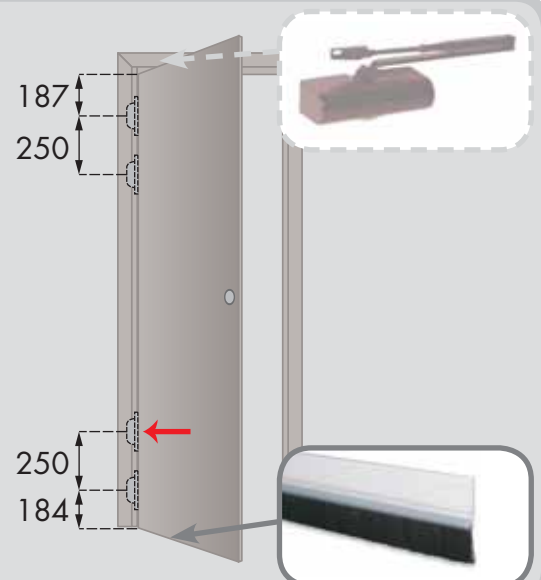
For doors with a door closer or higher / wider / heavier doors and for high frequency use / (eg public places such as schools, hospitals, airports, etc.) and / or where accessories are installed such as doorstops, weatherstrips or gaskets and seals

 The doorstop is installed as far from the hinge axle as possible; We suggest the distance of about 75% of the door width towards the lock.



## With weatherstrips 4 HINGES

The position of the 4 hinges with a door closer and weatherstrips or any other sealing accessory



# AN ACCURATE STUDY OF ALL THE DOOR INSTALLATION DETAILS IS ESSENTIAL FOR CHOOSING THE SUITABLE HINGE REGARDING ITS USE



It is essential to make an accurate installation and adjustment in compliance with the instructions by Krona Koblenz and considering the warnings provided with the hinge instructions are available from Krona Koblenz and downloaded from our website [www.kronakoblenz.com](http://www.kronakoblenz.com).

**- Place of installation (residential buildings, public places, offices, schools, airports, internal or external doors, etc.) and / or the frequency of use.**



In frequently visited public buildings there is an intense usage due to the frequent opening and closing (schools, hospitals etc.). In this case suitable heavier-duty hinges (capacity) must be fitted, even if the door weight does not require them.

For external doors, corrosion resistance needs to be considered in choosing the correct hinge material or surface treatment.

**- Door weight.**



You also need to consider the weight of the hardware and of any possible decoration. The weight means the door leaf itself, without any fenestration or additional glass which can offset the centre of gravity of the door. For example, a large vision panel near the handle can noticeably affect the forces operating on the hinges in comparison with a plain door of the same weight and dimensions.



In this case the third (or fourth) additional hinge at the top will provide extra support.

**- Door and frame fastening.**



The materials and the jamb thickness must be able to maintain hinge stability during the door rotation.

A good hinge installation is not enough. All its elements must be perfectly installed according to the settings. The frame in particular plays an important role: it's necessary to check it is plumb and square before installing the door as fastening the hinges may affect it. If the doors weigh  $> 60$  Kg the screw fastening is not sufficient; in such a case a mechanic fastening with screws or anchor bolt is mandatory. Screw or anchor bolt fastening with a hinge fixing plate helps to create more stability. It is important to avoid any misalignment of the lower and upper hinge due to frame twisting.

Be careful with the door width under 600mm and/or if its thickness is out of standard. It is important to check the hinge rotation compatibility so that the door edge does not interfere with the frame while opening.



**- Are the specific certificates required? Which ones?**



CE branding is available in various hinges. Check the product profiles or ask Krona Koblenz for available certificates.



# CONFORMITY DECLARATION AND CERTIFICATES

## WHAT ARE THEY AND WHAT ARE THEY FOR?



The **conformity declaration** is a document declared by the manufacturer that the hinge meets the requirements and current technical standards.

Krona Koblenz provides the conformity certificate for all its hinges.



The **fire certificate** is only necessary for the use of hinges with the fire-resistant doors (REI). It certifies that the hinge installed together with the specially featured door will prevent the door from falling for a definite time (30 or 60 minutes) in case of a fire. In the product profile you will find a special symbol of the certified models by Krona Koblenz.



**CE certification** indicates that the product matches the basic safety requirements according to the standards of the building materials regulation. In particular, it refers to the mechanical resistance, dimension and colour stability, fire resistance, hygiene and environmental impact, practical safety and corrosion resistance.

Furthermore, this certificate guarantees the performance consistency as each production batch gets tested according to the required standards and validated by a third independent qualified authority which carries out serious licensed checks over our test-beds.