

*The heart of your building™*



# KONE Polaris™

THE DESTINATION CONTROL SYSTEM FOR OPTIMIZED PASSENGER FLOW

# KONE Polaris™

## – an effortless elevator experience

Just select your destination and let KONE Polaris guide you. Imagine smart and easy-to-use elevators. Imagine better organized lobbies, shorter time to destination, orderly boarding, uncrowded elevator cars, fewer unnecessary stops, and less time spent in the elevator. KONE Polaris – more than you can imagine.



### **Where KONE Polaris makes a difference**

The KONE Polaris destination control system for passenger elevators can dramatically improve vertical transportation in residential buildings, office buildings, hotels, and business complexes. With its wide and flexible range of visual designs, elevator call personalization, and security options, KONE Polaris will also have a positive impact on the look and feel of the entire building.

# Efficiency, comfort, and security

Whether in a large office building, a hotel, or a residential complex, the purpose of KONE Polaris is the same:

- To benefit building owners by increasing efficiency
- To benefit passengers by increasing comfort and reducing journey times
- To benefit occupants by increasing security and peace of mind



# Passenger benefits throughout the journey

## More comfort

Because you select your destination before entering the elevator, the need to struggle through a crowd of people to press the button inside the car is eliminated.

There's no need to run for fear of missing your assigned elevator – the system knows the time needed to get from the destination operating panel to the car without rushing.

## More personalization

KONE Polaris is available with a range of personalization benefits to further increase your comfort. User-specific door times, automatic call allocation to passengers' home floors, and audible passenger guidance all help make the KONE Polaris experience a uniquely personal one.

For people who need more time and space, an accessibility function can be activated with a card reader or a special button. This allows more time to reach the car, longer door dwell times, and, because fewer people are assigned to that car, more space in the car.



## More security

KONE Polaris enables the elevator system to be integrated with the building's access control system. Occupants can use swipe cards and PIN codes, restricting unauthorized use of elevators significantly and adding to the security of the entire building.

## More guidance

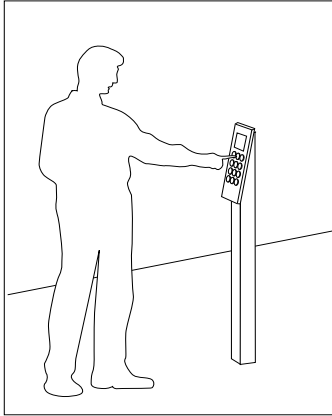
The optional elevator destination indicator shows the selected destination floors. As only destinations from your departure floor are shown, this enables you to recheck that you are entering the right car.

## More space

Once inside the car, it is unlikely to be crowded as KONE Polaris only assigns the correct number of passengers to each elevator. Because each car serves only a specific range of floors, the journey time will be fast.



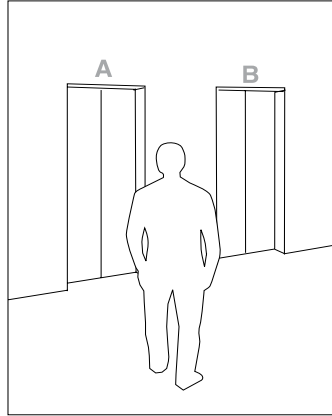
# Arrive at your destination in three simple steps



Step 1

## Select your destination

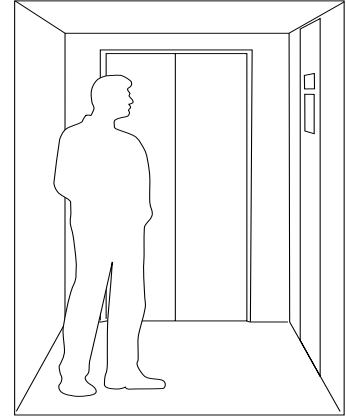
Select your destination floor at the destination operating panel. The display will tell you which elevator has been assigned to you, and where it is located.



Step 2

## Move to your elevator

Move toward your elevator. As you approach, you can check which one is yours by referring to the elevator identifier above each elevator.



Step 3

## Travel to your destination quickly and comfortably

Once in the car, the next-stops indicator displays the destination stops the car will make. The position indicator informs you when you have arrived at your destination floor.



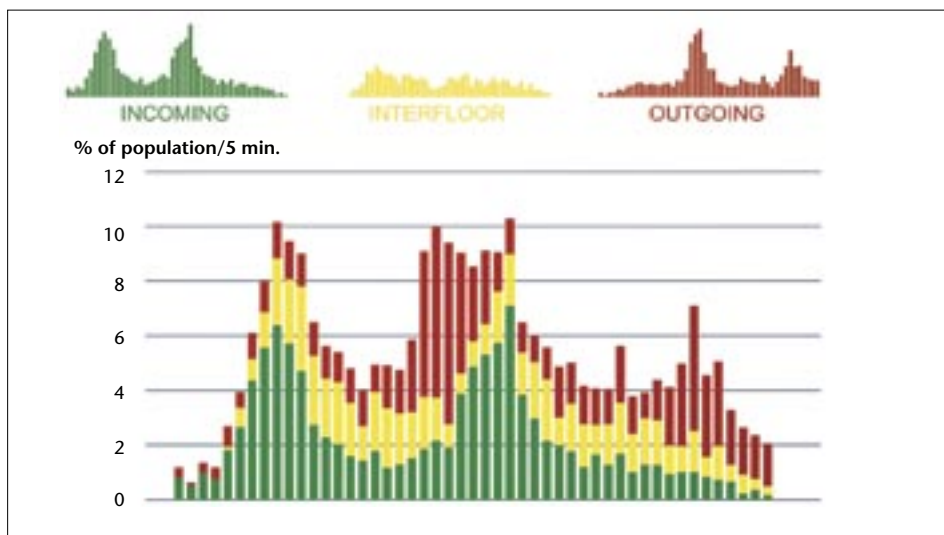
# Increased capacity, shorter waiting times

KONE Polaris uses artificial intelligence to learn and forecast the traffic flows of the building. When the traffic intensity alters, the control system measures the changed traffic patterns and switches its optimization routines accordingly. During lighter traffic, passenger waiting times or elevator energy consumption can be optimized, while during heavy traffic the elevator handling capacity is increased.

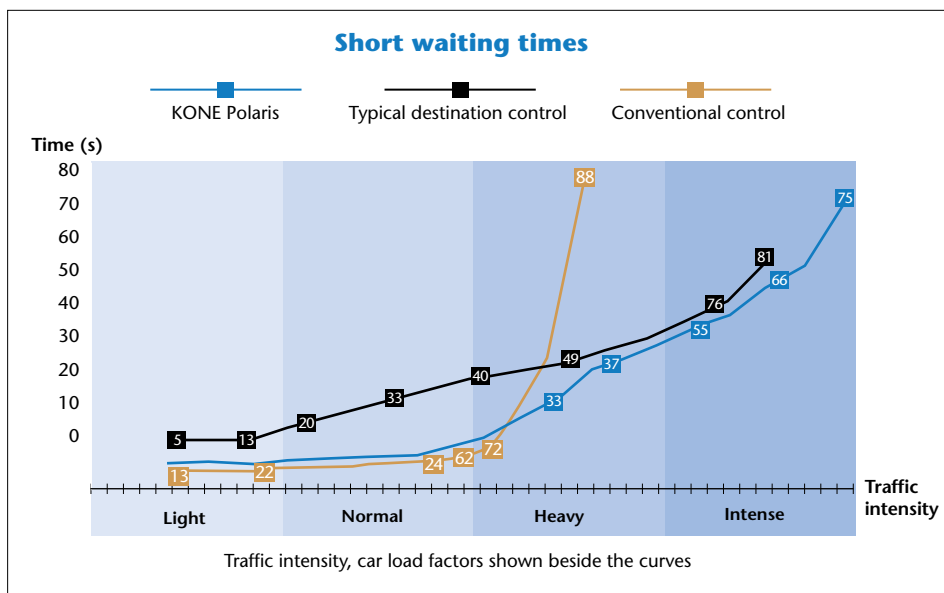
Depending on the number of cars in the group, car capacity, and the number of floors in the building, KONE Polaris increases the handling capacity of an elevator group by between 20% and 100% during heavy up-peak traffic, compared to conventional systems. Often, the use of KONE Polaris leads to an increase in rentable space.

This increase in handling capacity is not achieved at the expense of in-car comfort. On the contrary, with KONE Polaris, the car load factors, representing how full the cars are, remain low compared to elevator groups using a conventional control

system, even during periods of heavy and intense traffic. It is not only during the up-peak that KONE Polaris reduces passenger waiting times. Compared to typical destination control systems and conventional control systems, KONE Polaris creates short passenger waiting times throughout the day. As Figure 1 below shows, the benefit of KONE Polaris is its ability to offer short waiting times at all levels of traffic flow intensity.



**Figure 1**  
KONE Polaris intuitively adapts to different traffic flow patterns to provide the best service at all times.



**Figure 2**  
KONE Polaris combines short waiting times with low car load factors – in this figure shown as percentages beside the curves.

# Simply a better way to travel

With conventional collective control, passengers wait in a crowd then rush into the first car that arrives, before struggling to get to the buttons to select their floor and stopping at every floor selected.



With KONE Polaris, passengers select their destination before being guided to a car that has been assigned to take them, and a limited number of other passengers, to a specific range of floors. Because they have been assigned a place in the car, boarding is calm and orderly.



# Modernize your building

## Building upgrade

Whatever phase of its lifecycle your building is at – whether experiencing competition from newer neighbors, facing major changes in usage or service requirements, or an increase in tenants – KONE is committed to supporting your business.

Upgrading to KONE Polaris is a convenient and cost effective way of addressing all these issues. You can bring your elevator performance up to the highest level (see comparative figures below) – without adding any new elevators – and, thanks to our smooth staged installation process, with minimal disturbance and building downtime.

## Increased security

Upgrading your elevators with KONE Polaris will also improve the safety of tenants by providing personalized function options and guidance for users with special needs. Integration with access control systems improves your building's security.

## Improved performance

If the traffic and population in an office building increases so that queuing and long waiting times occur, KONE Polaris will return the service level back to normal or boost it further.

*According to the figures below, waiting times and times to destination will become much shorter especially during incoming traffic in the morning and after the lunch hour.*

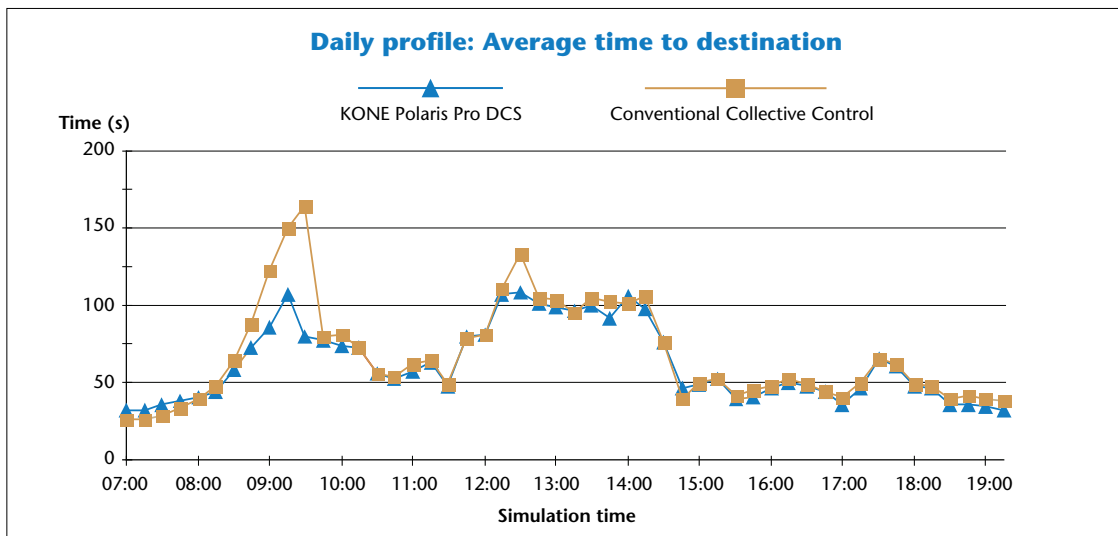


Figure 3

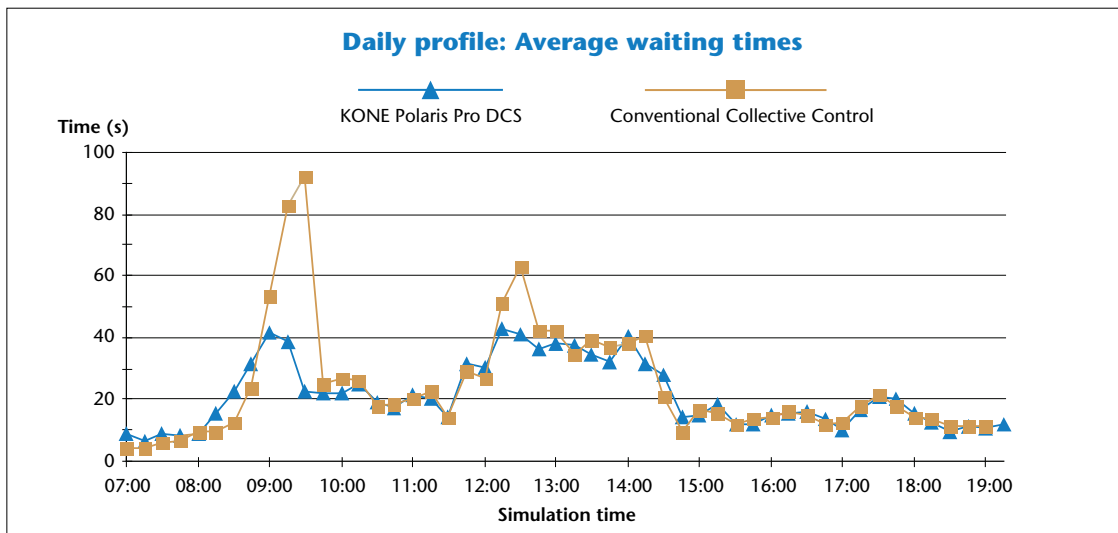


Figure 4

# Innovative technology, customizable designs

After the location and exterior, the main lobby and elevators are the most important elements in a building's character.

KONE Polaris combines innovative technology, to increase your comfort and security, with customizable designs to enhance architectural freedom and the visual appearance of your lobby.

Because KONE Polaris guides you to your elevator, the elevators no longer need to be in a clearly visible row. This gives architects greater freedom when designing lobbies and positioning the elevators.

It also makes it possible to attach or detach additional elevators to existing groups, for example around a corner, and thus improve the overall elevator system efficiency. This is especially useful in building modernization projects.

The ability to customize the appearance of the destination operating panels means they can be chosen to be perfectly in tune with the building's interior design.



*A customized touch-screen destination operating panel*



*Customizable screens streamline passenger guidance in non-standard lobby arrangements*

# Configurations to suit your needs

Two KONE Polaris solutions are available, making it easier to tailor the system to the individual needs of your building:

- KONE Polaris Lite – for low and mid-rise offices, hotels and residential buildings; available with the Hybrid configuration.
- KONE Polaris Pro – for mid and high rise offices and more demanding buildings where traffic boosting is needed; available with Hybrid or Full configuration.



## The Hybrid configuration

In the Hybrid configuration, destination operation panels are located only on the main floors, with other floors having conventional landing signalization, and cars featuring a conventional car operating panel. Inside the car, destination buttons are inoperable at the floors with destination operating panels.

The Hybrid configuration is particularly beneficial for improving the traffic flow leaving from heavily used floors. It is very useful in buildings with heavy up-peaks and buildings with large mid-building restaurants. For modernization projects, this configuration represents a very cost effective way to upgrade buildings with up-peak deficiencies.

## The Full configuration

In the Full configuration, destinations are selected on every floor and consequently there are no destination buttons inside the car.

The Full configuration receives full passenger origin and destination information from all floors, and is therefore able to provide the best service for all traffic conditions – the up peak, the lunch dash and the down peak, as well as quieter periods.

This system is advisable in more complex buildings. For example:

- where not all elevators in the group serve the same floors
- with complex lobby arrangements (more than 5 elevators in a row, circular lobbies or L-shaped lobbies)
- with high traffic peaks.

# Devices available for both single and double-deck elevators

Devices		
Hybrid	Full	● Standard    ○ Option    N/A Not available
<b>Destination Operation Panel</b>		
●	●	Keypad
○	○	Touch screen display
○	○	Security integration <sup>1)</sup>
<b>Car Operation Panel</b>		
●	N/A	Conventional COP
N/A	●	DCS COP <sup>2)</sup>
<b>Destination indicator (DIN)</b>		
○	○	On landing wall
N/A	○	On car transom
<b>Other devices</b>		
● <sup>3)</sup>	N/A	Hall lantern indicator/Hall lantern
● <sup>3)</sup>	N/A	Landing call station
●	●	Elevator identifier

Software Functions		
Polaris Pro	Polaris Lite	● Standard    ○ Option    N/A Not available
●	N/A	Single and double-deck elevators
●	N/A	Ghost passenger detection
●	N/A	Artificial intelligence
●	N/A	Fuzzy logic
●	N/A	Genetic algorithm
●	N/A	Traffic forecast
○	N/A	Automatic zone call transfer
○	N/A	Group call
○	N/A	Accessibility function
○	N/A	PIN code
○	○	Card reader
○	○	Voice announcer

1) Turnstile with Destination Operation Panel

2) Destination control system car operating panel includes the position indicator, next-stop indicator and hidden keypad

3) On landings that have no Destination Operation Panel



[www.kone.com](http://www.kone.com)

## KONE at the heart of your building

KONE is a global leader in providing complete and innovative solutions for the design, installation, modernization and maintenance of elevators and escalators and the maintenance of automatic building doors. Our 28,000 dedicated employees serve you in 49 countries.

KONE solutions and services are designed to provide a performance edge to our customers. By cooperating closely with you from the earliest planning stages of a project, we can determine the best means of ensuring the smooth flow of people and goods throughout your facilities during their entire lifetime.

KONE's space- and energy-saving machine-room-less, counterweight-less and double-decker elevator solutions are among the most innovative in the industry. Our modern escalator solutions offer absolute reliability and cost effectiveness. Our remote monitoring and modular modernization services allow for a proactive approach to maintenance and upgrades of your equipment. Life-cycle thinking underlies our commitment to reliable service and modernization solutions that meet today's higher design, safety, comfort, and performance standards.

KONE solutions can be found around the corner as well as in many prominent buildings around the world such as the Trump Tower in Chicago, Swiss Re and Broadgate Tower in London, National Grand Theatre in Beijing and the National Bank of Abu Dhabi. KONE is also the shipping world's preferred partner for on-board vertical flow management of people and goods.