



# PORTIER

Parking system by FLS Finland

## Portier™ space-specific guidance

- Highly visible and universally understandable guidance system
- Improves capacity utilization and throughput of your car park
- Provides great customer service through ease of parking
- Unique audio capability for novel applications



## USER EXPERIENCE

Upon entering to the parking facility, user will follow the directional Solo/Duo/Trio displays that show the amount of free spaces in a given driving direction. If all the spaces are occupied, the direction is shown as red arrow and cross.

Once the user has decided the segment where to park, free and occupied spaces can be distinguished based on the green/red LED indicators on top of each parking space.

When the vehicle enters the parking bay, the ultrasound scanning of the ParkSensor will detect the vehicle and change the status from free to occupied. When the status is changed, ParkSensor will play the uploaded audiofile which can provide further guidance, act as a hospitality gesture or be an outdoor marketing vehicle.

## KEY BENEFITS FOR THE USER

- Overall convenience of parking (faster, easier, less stressful)
- Eliminates the unnecessary driving
- Guarantees best available space

## KEY BENEFITS FOR THE OPERATOR

- Improved throughput
- Enhanced customer loyalty
- Improved capacity utilization
- Better environmental image
- Opportunity to earn with media sales

## KEY BENEFITS FOR THE ADVERTISER

- Extremely high attention value
- Novel, surprising marketing tool
- Boosts the messages from other channels

## PORTIER SYSTEM HIGHLIGHTS

- Extremely good visibility through high-quality LEDs and product design
- Viewing angle for the ParkSensor more than 180°
- System specific aluminium profile enables quick and neat installation
- System design allows flexible scaling
- System is fully configurable and independent of the physical installation
- Solo/Duo/Trio symbols universally understandable
- Unique audio feature enables novel ways to provide better service or gain more revenue

WE MAKE IT  
VISIBLE

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## MARKETING EFFECTIVENESS OF THE AUDIO ADVERTISEMENT

FLS Portier system has been installed at Helsinki Airport business car parks P1 and P2 where local operator, Finavia, utilizes the audio as an outdoor marketing tool as well as hospitality gesture to welcome their customers.

In 2011, FLS conducted a survey to assess the effectiveness of the audio marketing in order to validate that the concept works in real use conditions. The primary purpose of the study was to measure the attention value and brand awareness of the marketing campaign. The study was conducted as an interview survey of the customers who parked at the Helsinki Airport business parks.

The key findings for the audio marketing effectiveness were:

- Spontaneous attention value 79 %
- Spontaneous brand awareness 41 %
- Aided brand awareness 60 %

Effectiveness results were phenomenally good for any outdoor marketing vehicle.

Furthermore, 90 % of the users felt that the actual guidance system made parking faster and easier.



**FINAVIA**  
for smooth travelling

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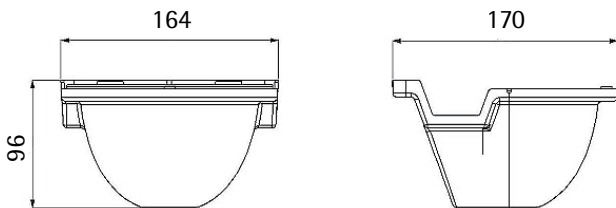
## FLS ParkSensor



Method of vehicle detection	Ultrasound
Number of LEDs	Green 6 pcs, Red 7 pcs
Sensor size ( h x w x d)	96 x 164 x 170 mm
Cover material	Polycarbonate
Cover colour	Semi-transparent (non-reflective) and matt black
Weight	350 g
Sensor protection	IP53
Expected lifetime of LEDs	50 000 (Green) and 100 000 h (Red)
LED brightness	Minimum 2500 mcd
Working temperature	-40 °C – +60 °C
Maximum detection distance	2.8 m

Sensor viewing angle, horizontal	±150°
Sensor viewing angle, vertical	±45°
Supply voltage	24 VDC (via RS-485)
Supply voltage for RowMasters	240 VAC, 50-60 Hz
Connection type (data)	RS-485
Power consumption	1.4 W - 4 W
PWB protection	Conformal coating
Audio features	Integrated speaker, maximum 2 min audio file
Sound quality	22 kHz / 8 bit, .wav
Complies	CE, RoHs
Warranty	2 years
Manufactured in	Finland

## FLS ParkSensor dimensions



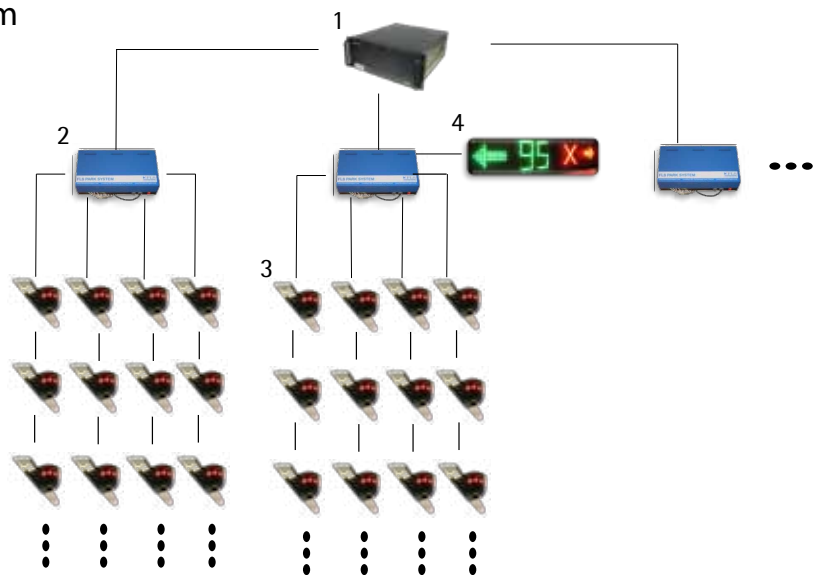
## FLS ParkSensor Twin



Twin provides the option to extend the LED light e.g. over the driveway in locations where garage structures block the direct view to the sensor

## Schematic picture of the complete system

- 1) ParkControl server and software  
SW for system configuration and monitoring
- 2) Control unit (RowMaster)  
Max 63 ParkSensors in four chains  
Additionally max 4 Solo/Duo/Trio displays  
TCP/IP communication to server
- 3) ParkSensor  
Space-specific sensor  
RS-485 communication to control unit  
Supply voltage via RowMaster
- 4) Solo/Duo/Trio display  
Directional display for driveways  
RS-485 communication to control unit  
Supply voltage via RowMaster



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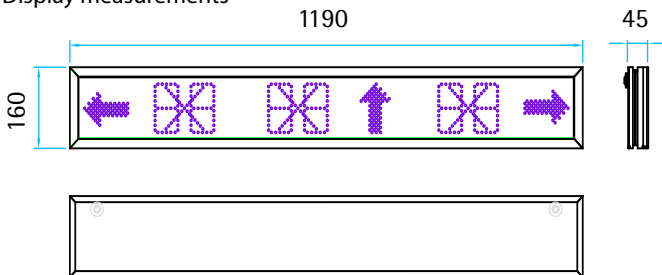
## FLS Trio



Display composition	Three arrow and number parts
Graphical features	3 x green '88' number parts 3 x green arrows 3 x red arrows 3 x red 'X' signs
Arrow directions available	Right, left, up, down
Digit width (LEDs)	1
Number of LEDs	519 pcs
Type of LED	SMD
Module size (h x w x d)	160 mm x 1190 mm x 45 mm
Module weight	14 kg
Module material	Deactivated aluminium
Module paint	Powder painted, effect black, custom colours on request
Brightness control	Automatically adjusted
Module protection standard	IP 53
Front surface	Non-reflective acrylic
LED brightness	Minimum 2500 mcd
Display working temperature	-40 °C – +55 °C ambient
LED colours	Green and red
Display viewing angle horizontal	±60°
Display viewing angle vertical	±45°
Supply voltage	24 VDC (via RS-485)
Connection	Single cable for easy installation
Connection types	Standard CAT-5/RS-485 Others available on request
PWB protection	Conformal coating
Complies	CE EN 55022B EN 61000-6-1, IEC 61000-4-2 EN 61000-6-1, IEC 61000-4-3 EN 61000-6-1, IEC 61000-4-4 RoHs
Manufactured in	Finland

## FLS Trio Parking Display

Display measurements



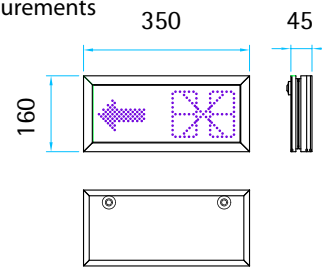
## FLS Solo



Display composition	Single arrow and number part
Graphical features	1 x green '88' number part 1 x green arrow 1 x red arrow 1 x red 'X' sign
Number of LEDs	173 pcs
Module size (h x w x d)	160 mm x 350 mm x 45 mm
Weight	5 kg

## FLS Solo Parking Display

Display measurements



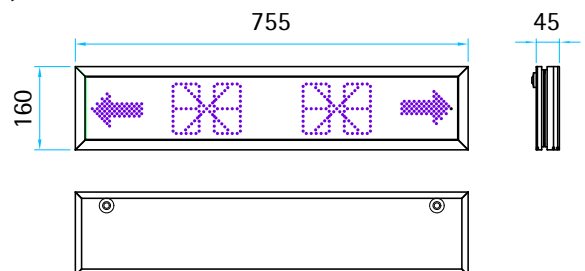
## FLS Duo



Display composition	Two arrow and number parts
Graphical features	2 x green '88' number parts 2 x green arrows 2 x red arrow 2 x red 'X' sign
Number of LEDs	346 pcs
Module size (h x w x d)	160 mm x 755 mm x 45 mm
Weight	9 kg

## FLS Duo Parking Display

Display measurements





# PORTIER

Parking guidance solutions by FLS Finland

