

SINCE 1942

WWW.ARCOL.ES



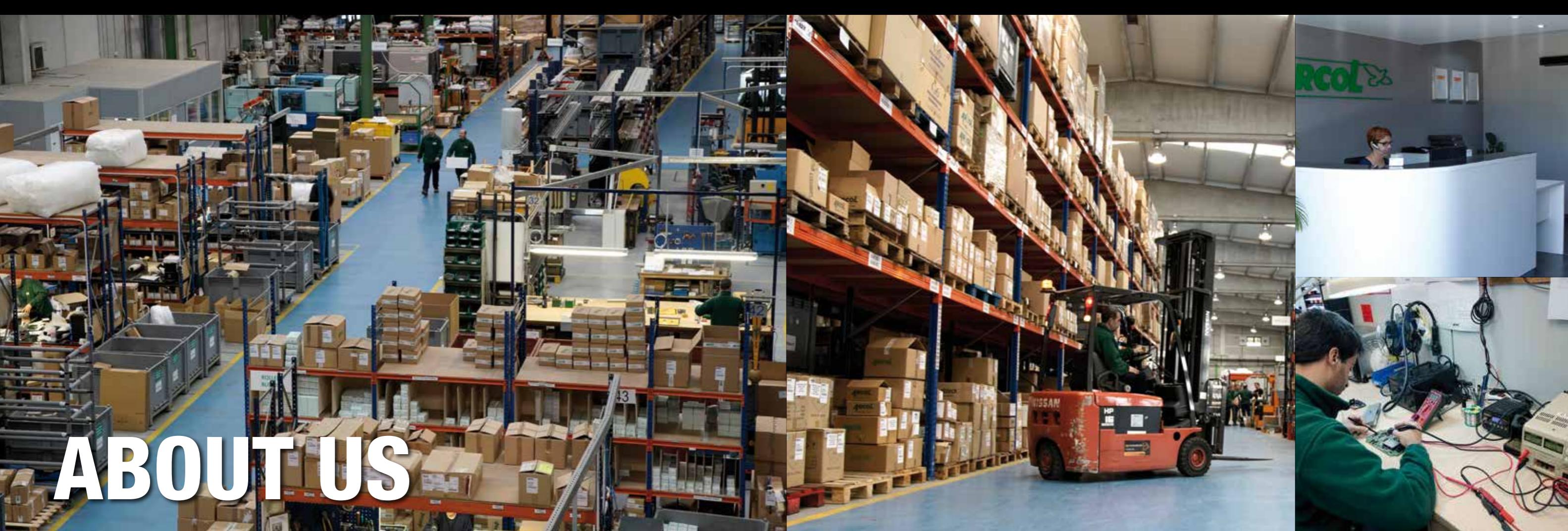


R&D  
**QUALITY**  
DESIGN  
**PRODUCTION**  
EXPERIENCE  
**MANUFACTURING**  
SUSTAINABILITY  
**TECHNOLOGY**  
SAFETY  
**FLEXIBILITY**  
TAILORING  
**SERVICE**  
CUSTOMER CARE  
**INNOVATION**



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## R&D

Our qualified team of designers and engineers turns ideas and projects to 3D designs and prototypes

## DESIGN

Following latest trend in innovation, we launch new and exclusive products, most of them, adapted to customer requirements

## MANUFACTURING

At our premises, we do produce for different markets with a strict Quality control that enables us to have ISO 9001 and ISO 14001 certifications so as the homologations for all our products



## INJECTION

This division enables us to produce our plastic components and have a better control over the whole process

## QUALITY CONTROL

Innovation, safety and personalization would not be possible without an accurate quality control both in laboratory and during the entire production process

## CUSTOMER SERVICE

From the first steps of design, through production, quality control to After Sales, we do support our customers offering technical assistance

INTERVIEW



*“On the right track”*

## Raül Colom

GENERAL MANAGER

**Q. INDUSTRIAL ARCOL reaches 75 years. How was the beginning?**

**A.** Our path began in 1942, in my grandfather's workshop in Barcelona, producing from Rear-View mirrors for motorcycles and cars, lighting fixtures, horns... to the mirror of the legendary Biscúter. My father continued this work and so we grew. In the 70's we were already exporting and in the 90's we moved to Sant Adrià del Besós.

**Q. What have been the most outlined changes throughout your career?**

**A.** As in the majority of companies in our country, the most significant change has been the integration of new technologies. This has allowed us to improve our processes and our quality system, while we have added new products... that is, we have grown. In fact, in 2008 we moved to new and much larger facilities in La Roca del Vallès

**Q. Which are your main business divisions? To what industries are you focused?**

**A.** The main activity are the Rear-View, lights and sunblinds. In the last years and with the integration of new technologies into our products, we have

incorporated driving assistance systems such as cameras and monitors. Our range of products could be found in Buses, Coaches, Motorhomes, Trains, Trams, Special Vehicles...

***These 75 years would not have been possible without our partners and customers***

**Q. To what factors can be attributed your success?**

**A.** To achieve 75 years as a successfully family business is the result of the effort and dedication of our team, partners and suppliers but above all, thanks to our customers. This would not have been possible without all of them.

***“I think the best is yet to come”***

**Q. What does it make you different from other companies in the industry?**

**A.** The differential factor of Arcol is our aim of service towards customers. All our equipment, R & D, Quality, Production... is totally involved in working to offer the most innovative, technological and safe solutions for our client, As well as customize our products according to customer request.

**Q. How do you see the future of Arcol?**

**A.** We will work following our philosophy of innovation, improvement for the driving safety and definitely offering to our customers this global service from their first idea to the final product.

Although I think the best is yet to come.





In this decade the manufacture of lamps and mirrors for motorcycles DKW and Citroën cars began

*1950*



1942

1950

1960

The international expansion starts with the first exports and the assistance to national fairs

*1970*



1970

1980

This is the decade of growth: new headquarters, assistance in trade fairs (FIAA Madrid) and obtaining the ISO 9001 Certification of Quality.

*1990*



1990

2001

Start-up of the company with the production of accessories for vehicles such as the rearview mirror for the BISCUTER

*1942*



We design and manufacture products still useful in the present market

*1960*



We widen our range of products with the sunblinds. In 1987 we exhibited for the first time at the fair of the Barcelona Motor Show

*1980*



The 300 Series is launched to the market. These are the first mirrors integrated in the bodyworks and with a design much more innovative as already done. We are exhibiting for the first time at international fairs (Busworld in Kortrijk, Belgium).

# HISTORY

**ARCOL** 75<sup>TH</sup>



We keep growing and we moved to our new premises at La Roca del Vallès. Arcol is now present in over 40 countries

*2008*



2003

2008

2010

Cameras and monitors are included as system for the driving assistance, with the compromise for the safety on the road

*2012*



We develop exclusive products as per customer needs and strengthen the Taylor Made area

*2016*



2016

TODAY

Evolution, innovation with the aim of improvement: we launched lighting and signaling lights with LED technology

*2003*



We do introduce the first mirror with integrated cameras and get the ISO 14001 Certification in Environment

*2010*



Latest innovation in design, technology and aerodynamics in mirrors for buses and coaches: the new Born series

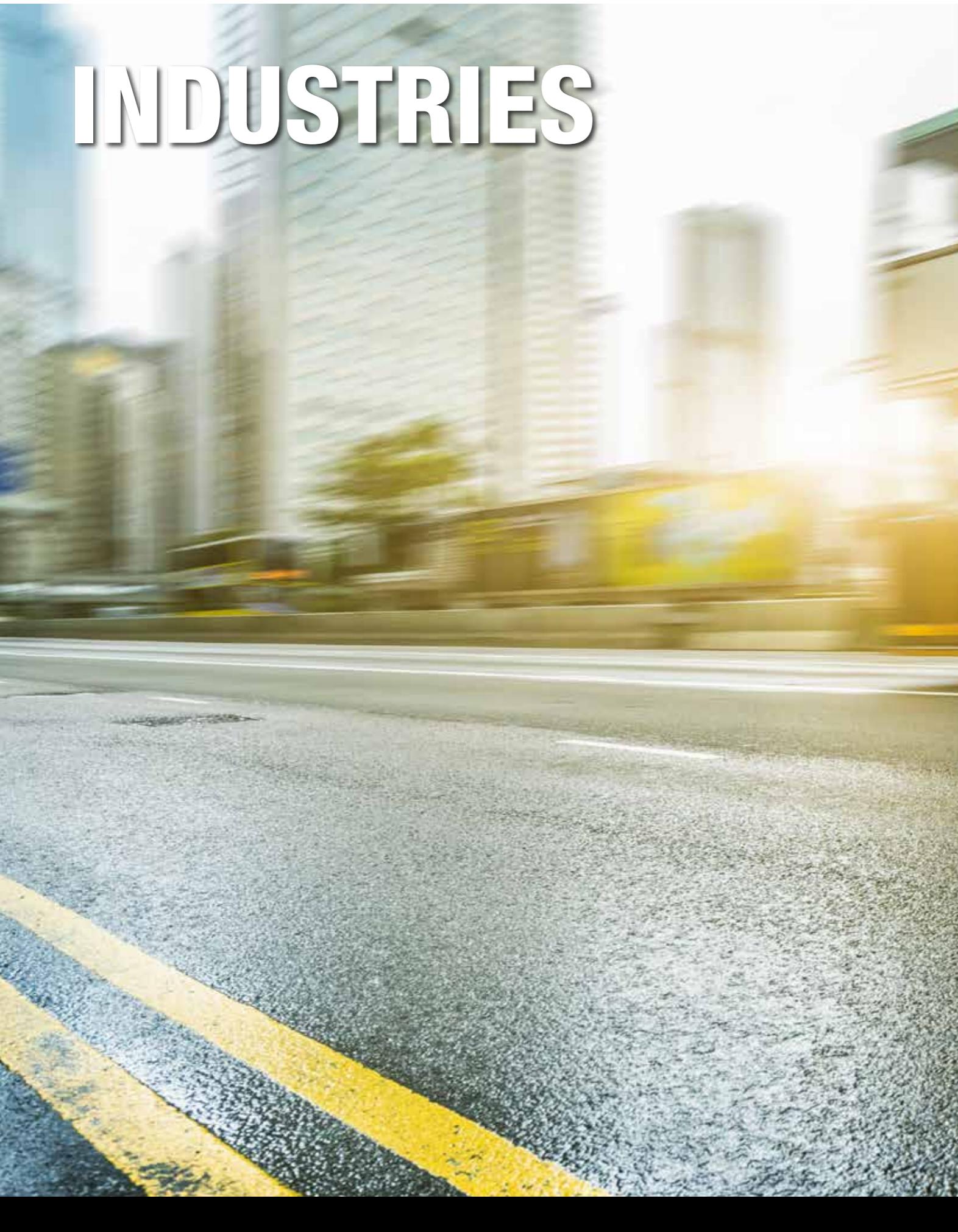
*2015*



... After 75 years we are still on the way

*today*

# INDUSTRIES



COACH



CITY BUS



MINI BUS

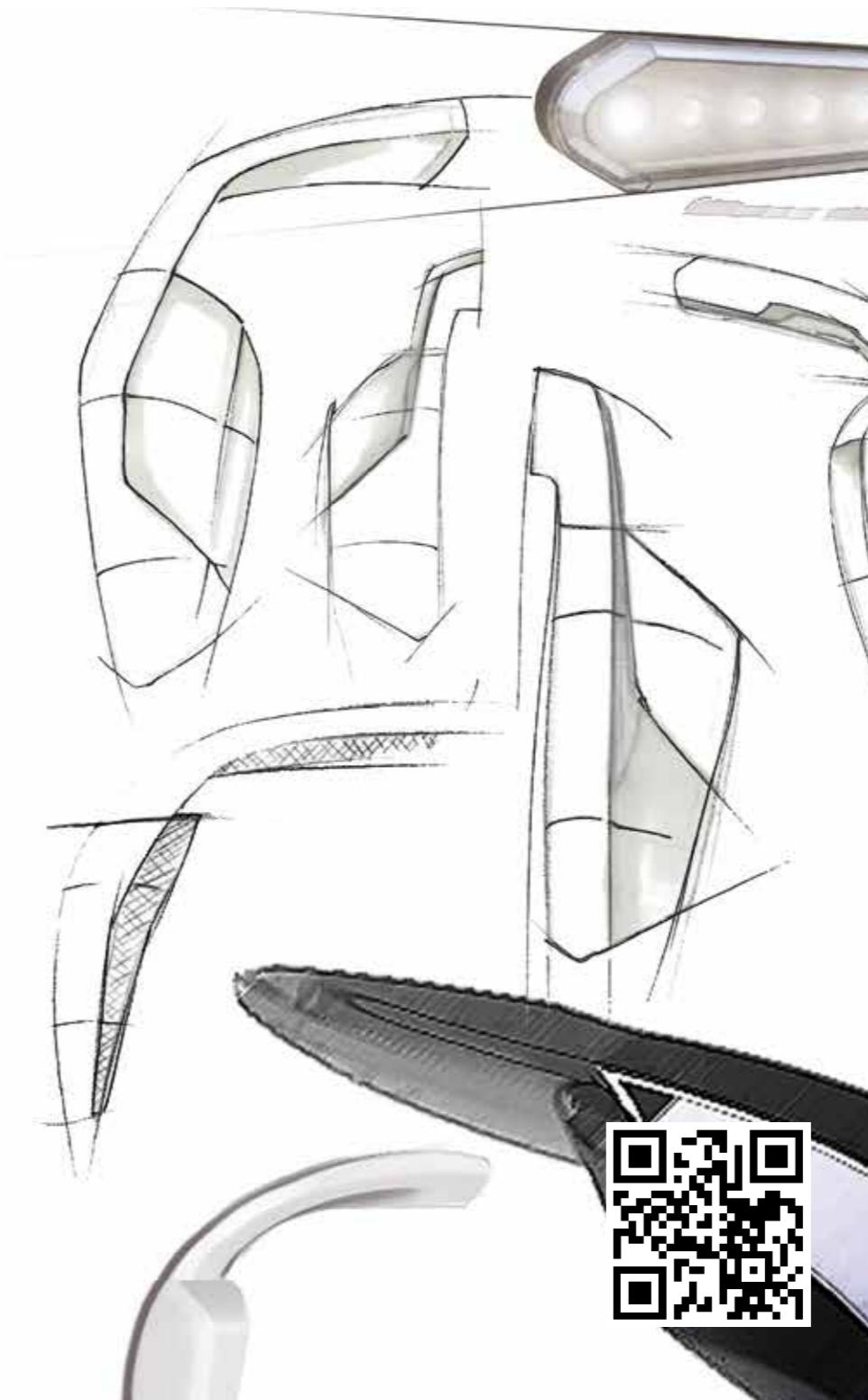
<p>Our waste experience in this industry allow us to cover all needs for each client. Aerodynamic products as a result of exclusive designs</p>	<p>Under the premises of safety and design together with the latest technology to get the best visibility in the cities</p>	<p>Innovation, security, design.... adapted to smaller buses to achieve the maximum functionality within the cities</p>
		
<p>MOTORHOME</p>	<p>SPECIAL PURPOSE VEHICLES</p>	<p>TRAIN / TRAM</p>



# TAILOR MADE PRODUCTS

Our products **are adapted**  
to the needs of the client

From the initial concept till the final product, our design department is focused in **figure out the specific requirement of our customer.**



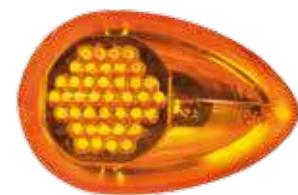
Mod. 344



Mod. 354

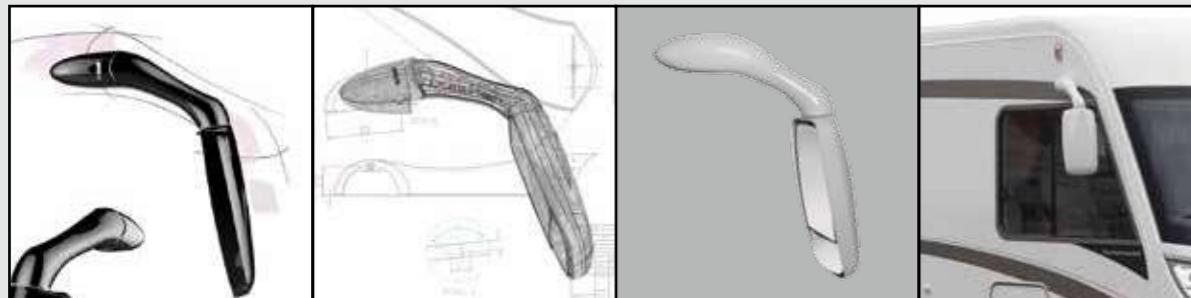
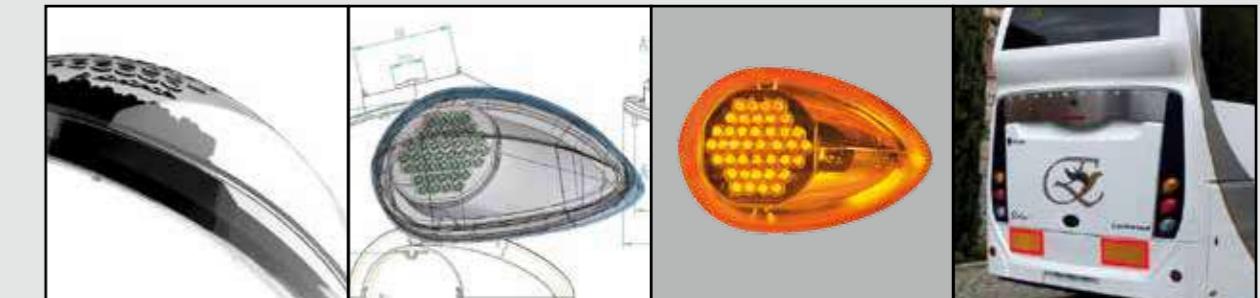
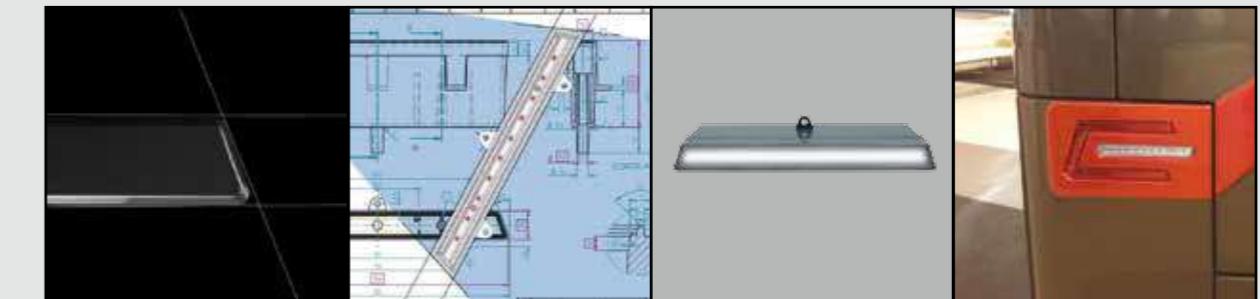
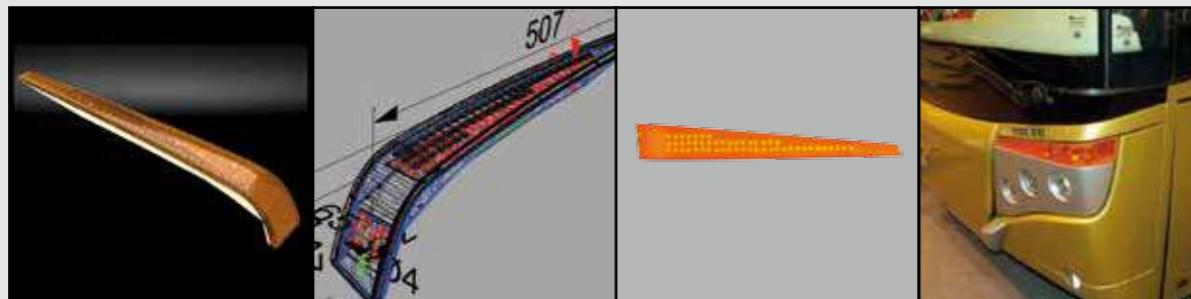
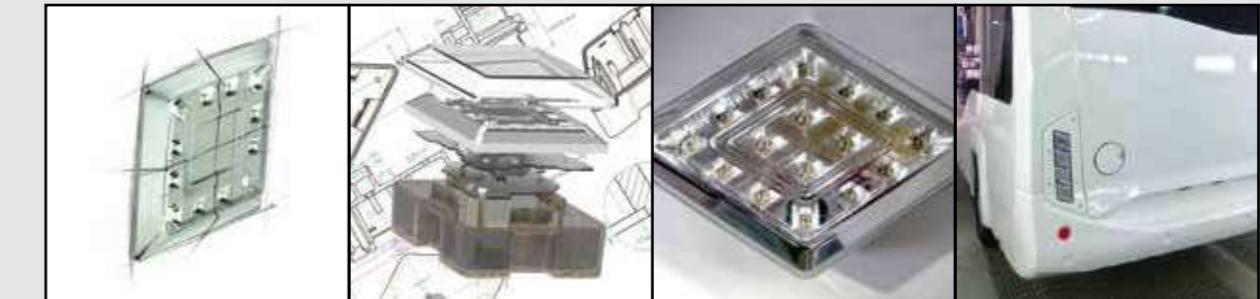


Mod. 412



**TAILOR MADE PRODUCTS**

AS PER CUSTOMER REQUEST

**REAR VIEW MIRROR.** Model 344**LED LAMP.** Model 412**REAR VIEW MIRROR.** Model 354**LED LAMP.** Model 420**LED LAMP.** Model 411**LED LAMP.** Model 422



**TOTALLY INTEGRATED  
INTO THE COACH**

**STYLIZED MIRROR**

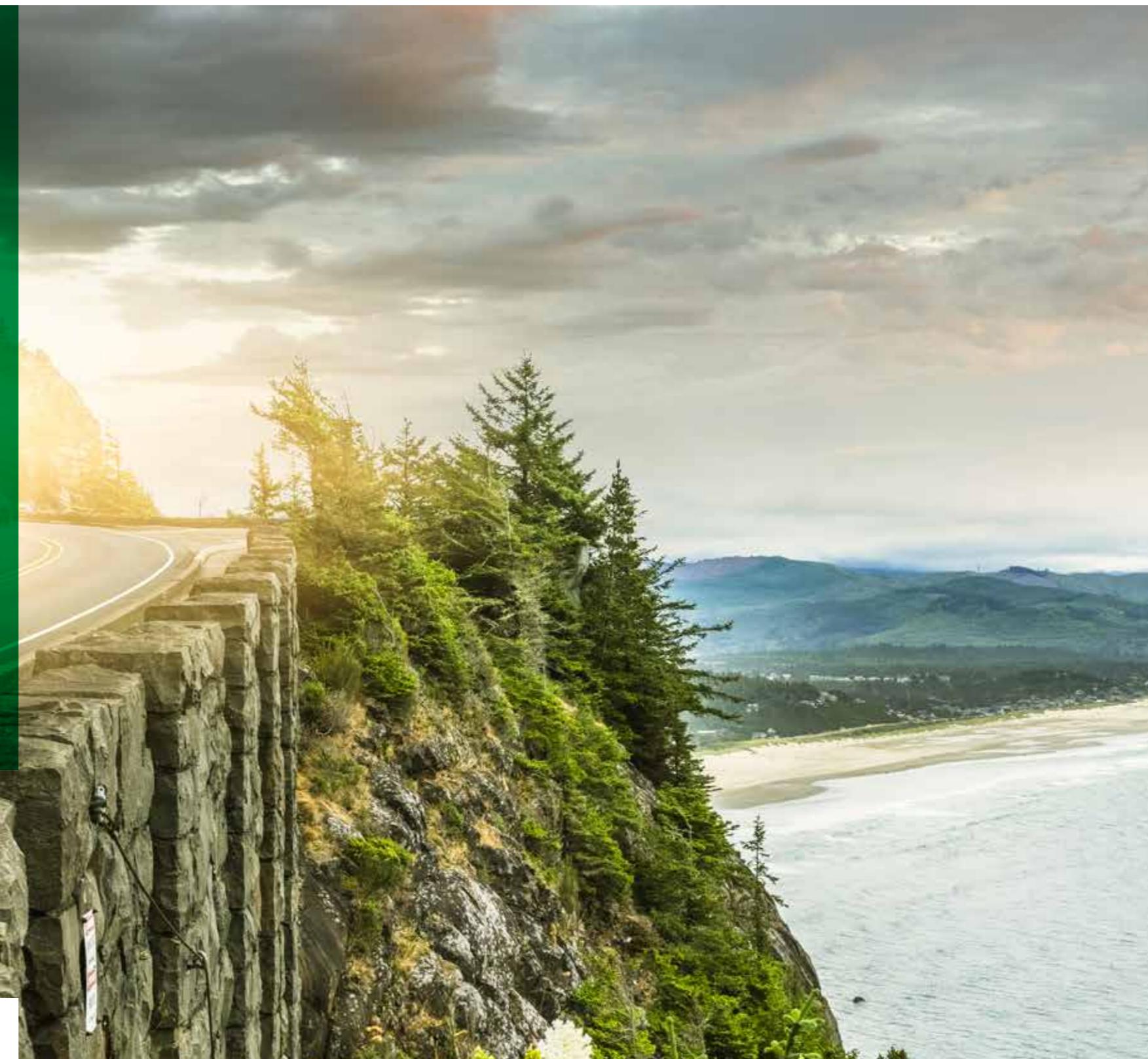
**AERODYNAMIC SURFACE**

**PERFECT VISION**

# SERIE BORN

**Top of the range**

New Born mirror as the new concept for **stylized and aerodynamics design** only suitable for big size vehicles and optimizing the perfect view of all categories



Mod. 350/331



Mod. 351

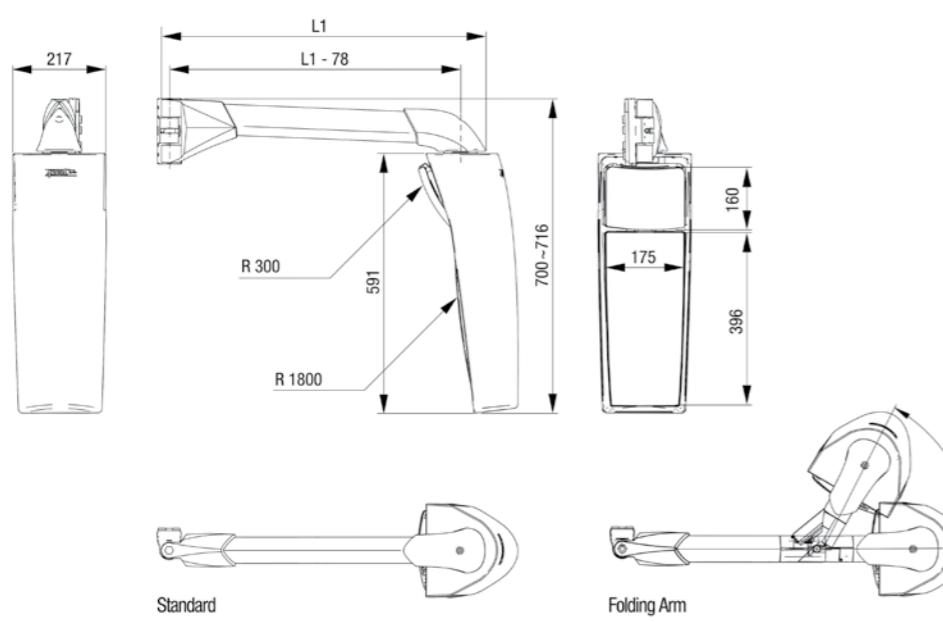


# SERIE BORN

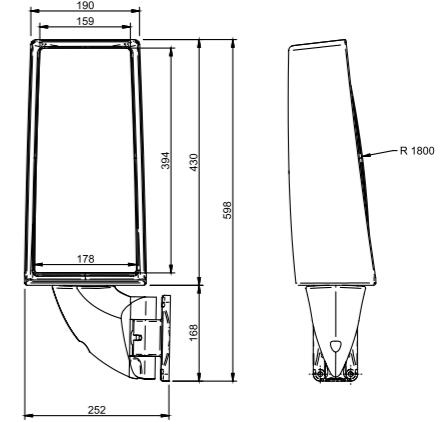
Born 350/331



NEW



Born 351



Main Features &amp; Options



SERIE BORN	< 2m.	ELECTRICAL	HEATED	RADIO ANTENNA	COURTESY LIGHT	FIX	BRACKETS		CATEGORY OF VIEW				
							FIX & FOLDING	PULL OUT	FOLDING PULL OUT	II	IV	V	VI
351	✓	OP	OP	OP	-	OP	OP	OP	OP	✓	OP	-	-
351-2	✓	OP	OP	OP	-	OP	OP	OP	OP	✓	✓	-	-
350/331	-	OP	OP	OP	-	OP	-	✓	OP	✓	✓	OP	OP



Following the latest trends, this new mirror for the Motorhome, Mini and Midi bus **shows how innovation and designs meet in an unique product.**

Mod. 345



Mod. 345-143



Mod. 345-250

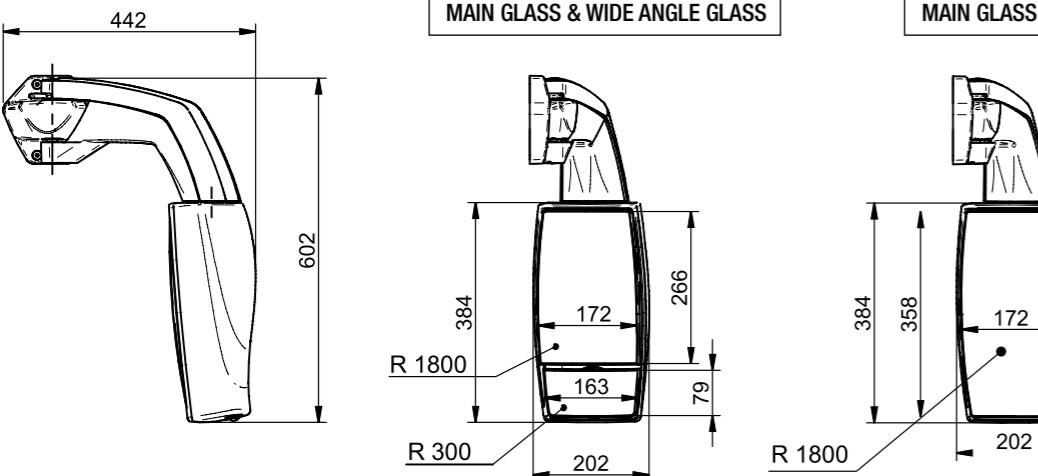


# SERIE 345

345



NEW



Main Features &amp; Options



Integrated camera



Courtesy light

CAMERA  
AVAILABLE

345-2



NEW

## FEATURES

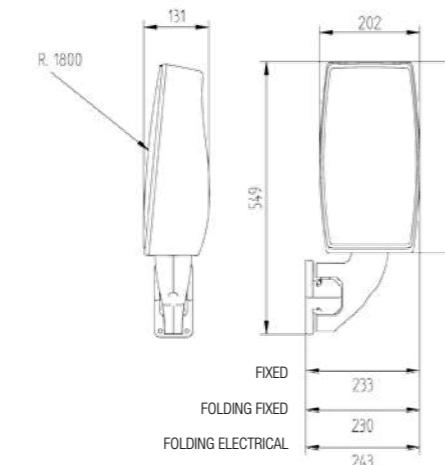
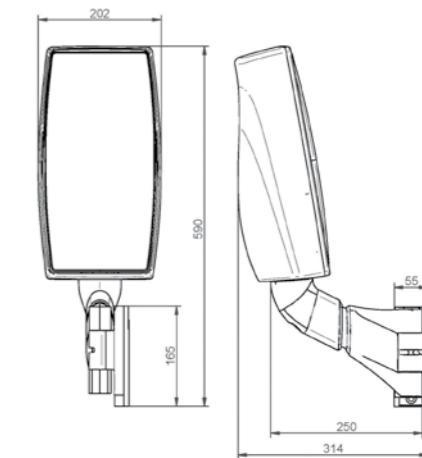
- » Main Glass (II Cat. View)
- » Black Color
- » Folding Bracket
- » Approval Nr. II-E9-04.11258 and Nr. II-E9-04.11413 /IV-E9-04.11414
- » RoHS and REACH Compliance
- » Voltage 12V or 24V

## OPTIONAL

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>» Wide Angle Glass (IV Cat View)</li> <li>» Electrical and Heating</li> <li>» Courtesy Light</li> </ul> | <ul style="list-style-type: none"> <li>» Bicolor painting</li> <li>» Front Camera 170°</li> <li>» Radio Antenna</li> </ul> |
|--|--|

345	< 2m.	ELECTRICAL		HEATED		VIDEO CAMERA		RADIO ANTENNA		COURTESY LIGHT		FIX & FOLDING	CATEGORY OF VIEW
		BRACKETS	OP	OP	OP	OP	OP	OP	OP	OP	OP		
345	< 2m.	✓	OP	OP	OP	OP	OP	OP	OP	OP	✓	✓	-
345-2	< 2m.	✓	OP	OP	OP	OP	OP	OP	OP	OP	✓	✓	✓

# SERIE 345

**345-143****345-250**

Main Features &amp; Options



V / VI Cat. Camera



Upper or Lower



Removable connection (345-143)



II / IV Cat.



Bracket Fixed



Bracket Folding Fixed



Bracket Folding electrical

345	< 2m.	ELECTRICAL	HEATED	RADIO ANTENNA	FIX				CATEGORY OF VIEW		
					BRACKETS	FIX & FOLDING	FOLDING ELECTRICAL	PULL OUT	FOLDING PULL-OUT	II	IV
345/143	✓	OP	OP	OP	✓	OP	OP	✓	-	✓	-
345-2/143	✓	OP	OP	OP	✓	OP	OP	✓	-	✓	✓
345/250	✓	OP	OP	OP	✓	OP	-	✓	OP	✓	-
345-2/250	✓	OP	OP	OP	✓	OP	-	✓	OP	✓	-



## Safety and additional features

Much more safety is possible in this mirror; just add the **integrated video cameras and further optional features** such as spot light, GPS, aerial...

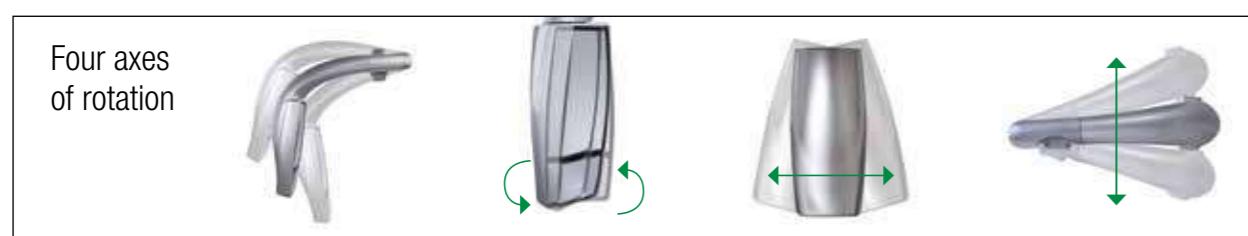
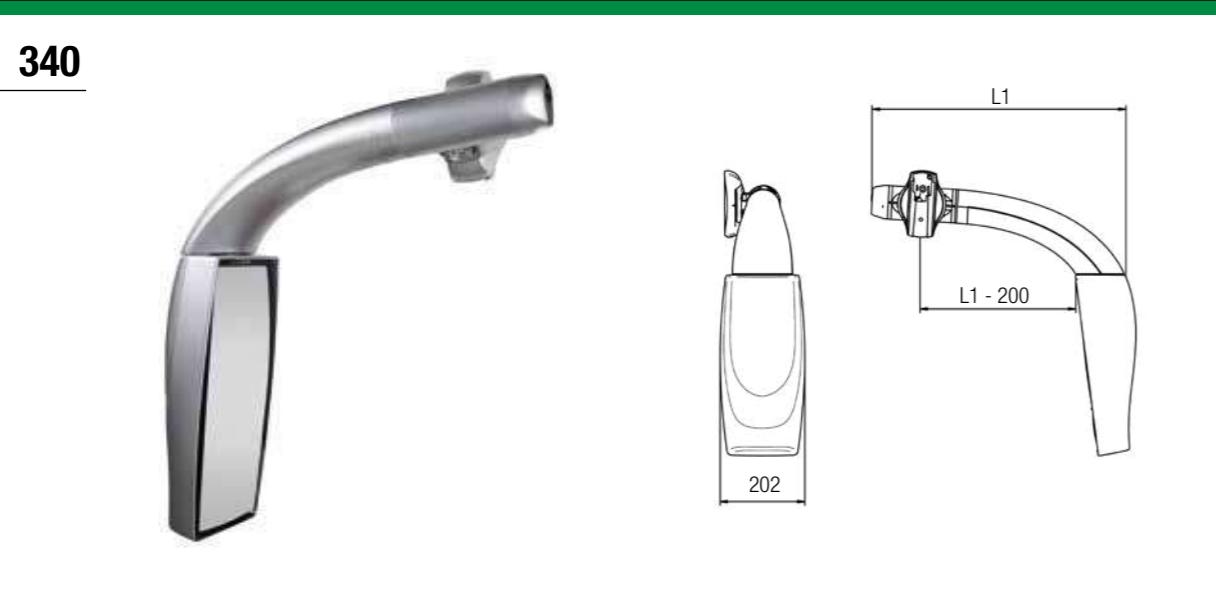
Mod. 340



Mod. 340-220



# SERIE 340



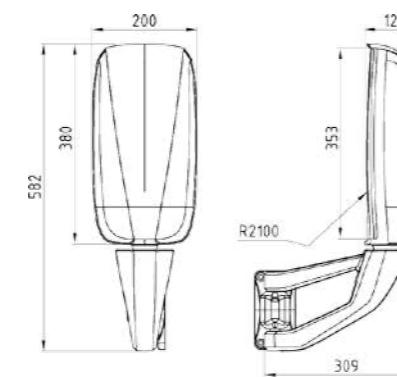
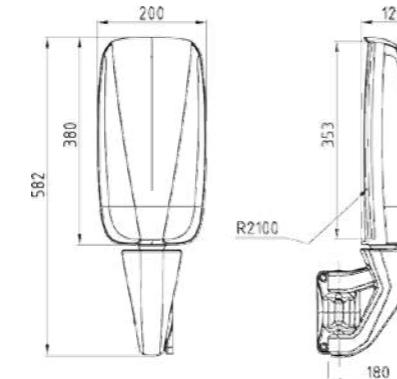
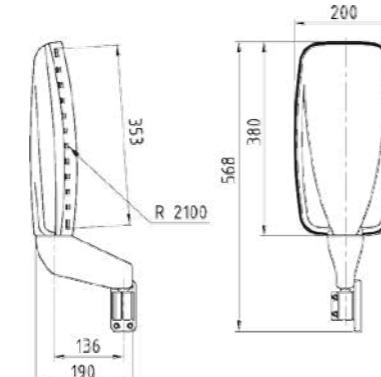
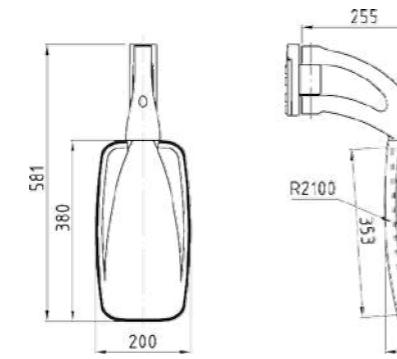
MODEL	L1
340/610	610
340/710	710
340/810	810
340/910	910
340/1010	1010
340/1110	1110
340/1210	1210



SERIE 340	< 2m.	ELECTRICAL	HEATED	VIDEO CAMERA	RADIO ANTENNA	COURTESY LIGHT	GPS & RADIO	FLAT GLASS II cat.	CATEGORY OF VIEW	
									BRACKETS	II
340	✓	OP	OP	OP	OP	OP	OP	OP	-	✓
340-2	✓	OP	OP	OP	OP	OP	OP	OP	-	✓
340/220	✓	OP	OP	OP	OP	OP	OP	OP	✓	✓
340-2/220	✓	OP	OP	OP	OP	OP	OP	OP	✓	✓



# SERIE AMIDA 0,5

**333-A6****335-A6****301-130****323**

## Main Features & Options



II / IV Cat.



Lower or Upper



Built in turn signal



Fixed Bracket



Mod. 333 (same as Mod. 333-A6 without turn signal lamp)



Mod. 335 (same as Mod. 335-A6 without turn signal lamp)



Removable connection

SERIE AMIDA 0,5	< 2m.	ELECTRICAL	HEATED	RADIO ANTENNA	GPS & RADIO	FLAT GLASS II Cat.	6A TURN SIGNAL		CATEGORY OF VIEW	
							BRACKETS	FIX		
									II	IV
333	✓	OP	OP	OP	-	-	✓	-	-	✓
333-2	✓	OP	OP	OP	-	-	✓	-	-	✓
333 A6	✓	OP	OP	OP	✓	-	✓	-	-	✓
333-2 A6	✓	OP	OP	OP	✓	-	✓	-	-	✓
335	✓	OP	OP	OP	-	-	✓	-	-	✓
335-2	✓	OP	OP	OP	-	-	✓	-	-	✓
335 A6	✓	OP	OP	OP	✓	-	✓	-	-	✓
335-2 A6	✓	OP	OP	OP	✓	-	✓	-	-	✓
301/130	✓	OP	OP	OP	-	-	✓	-	-	✓
301-2/130	✓	OP	OP	OP	-	-	✓	-	-	✓
323	✓	OP	OP	OP	-	OP	-	✓	OP	✓
323-2	✓	OP	OP	OP	-	OP	-	✓	OP	✓



These are the first mirrors to **offer different arm lengths** so that customer finally become the product, the most suitable for his needs.

Mod. 314



Mod. 324

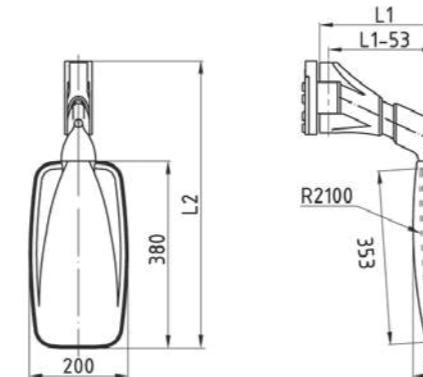


Mod. 314-143

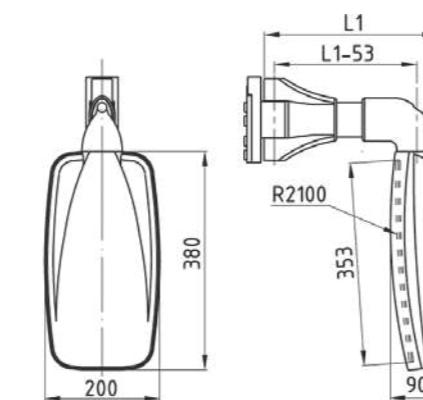


# SERIE AMIDA

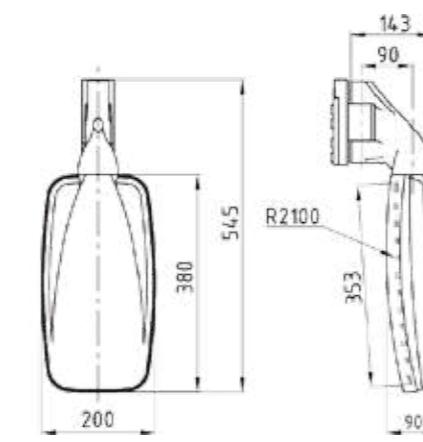
314



324



314-143



## Main Features & Options

Arm at customer request  
Max. 750 / Min. 250

Auxiliary Mirror. Cat. V / VI



II / IV cat.



Upper or Lower



Bracket: Fixed



Bracket: Manually Folding. Fixed



Bracket: Electrically Folding



Removable connection

SERIE AMIDA	< 2m.	ELECTRICAL	HEATED	ARM CUT-TO-SIZE	FLAT GLASS II Cat.	FIX	FIX & FOLDING	FOLDING ELECT.	PULL OUT	FOLDING PULL-OUT	CATEGORY OF VIEW			
											II	IV	V	VI
314	✓	OP	OP	✓	OP	OP	OP	-	✓	OP	✓	-	OP	OP
314-2	✓	OP	OP	✓	OP	OP	OP	-	✓	OP	✓	✓	OP	OP
324	✓	OP	OP	✓	OP	OP	OP	-	✓	OP	✓	-	OP	OP
324-2	✓	OP	OP	✓	OP	OP	OP	-	✓	OP	✓	✓	OP	OP
314/143	✓	OP	OP	-	OP	OP	OP	OP	✓	OP	✓	-	-	-
314-2/143	✓	OP	OP	-	OP	OP	OP	OP	✓	OP	✓	✓	OP	OP

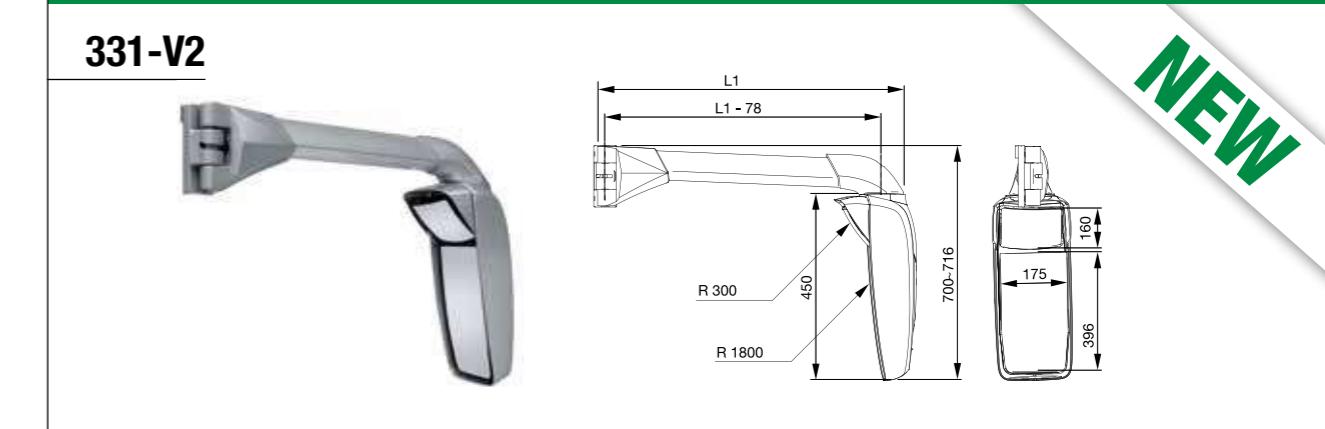
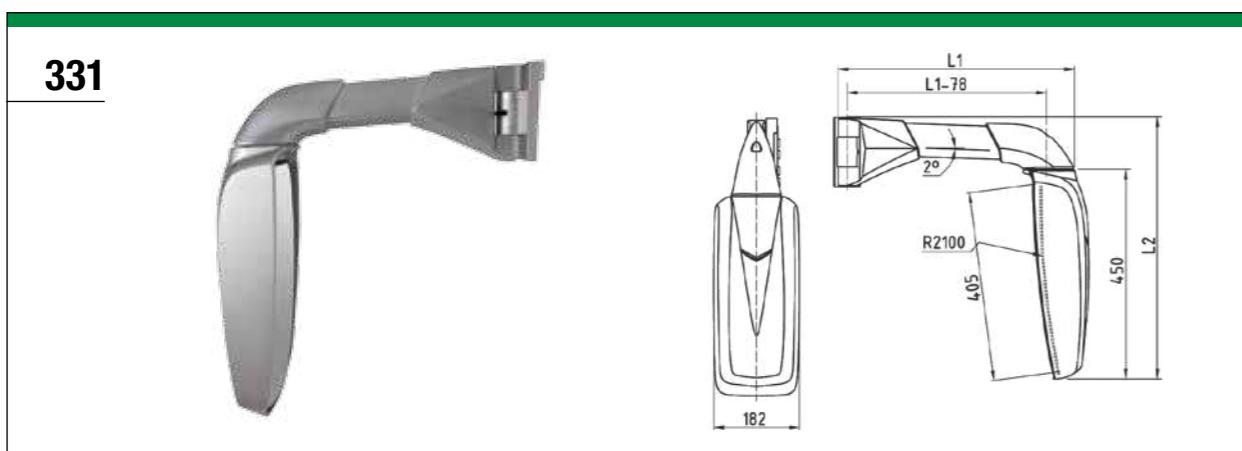
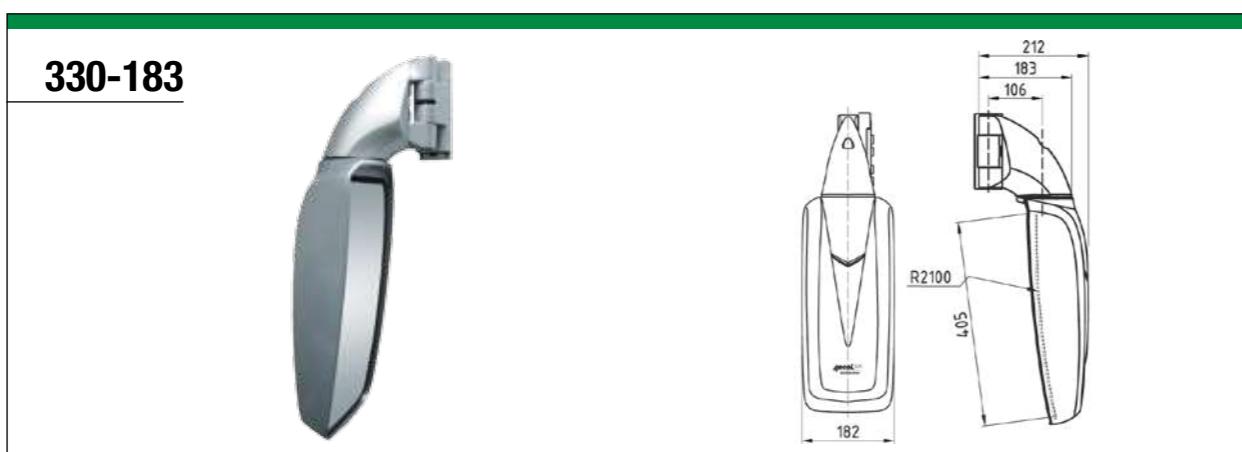
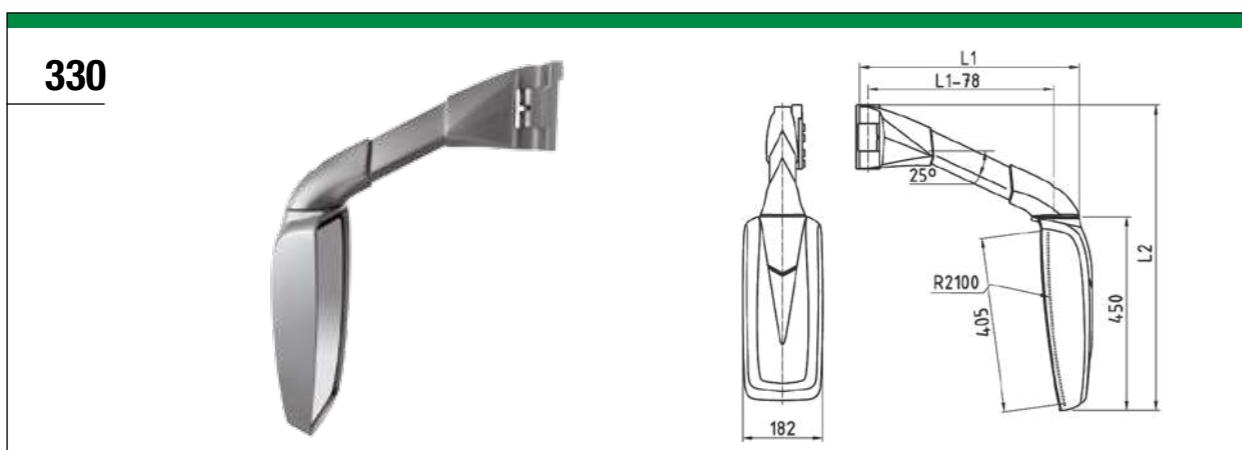
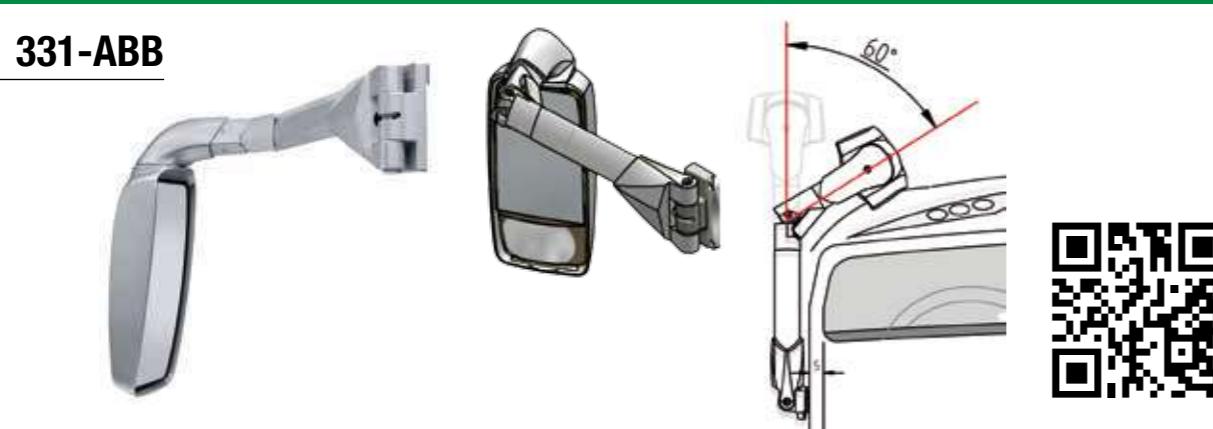


The Amida series  
**is evolving**

Next step in cities and long distance journey: perfect combination of **comfort and safety along with extra options** that allows to get the optimal functionality



# SERIE AMIDA 1,5



## Main Features & Options



L1 = Max. 750mm Min. 335mm



Auxiliary mirror V / VI



II / IV Cat.



V / VI Cat. camera



Upper or Lower



Removable connection

SERIE AMIDA 1,5	< 2m.	ELECTRICAL					HEATED	VIDEO CAMERA	RADIO ANTENNA	ARM CUT-TO-SIZE	ARM FOLDING	GPS & RADIO	FLAT GLASS II CAT.	FIX	CATEGORY OF VIEW				
		OP	OP	OP	OP	OP									BRACKETS	II	IV	V	VI
330		✓	OP	OP	OP	OP	✓	-	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	OP
330-2		✓	OP	OP	OP	OP	✓	-	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	✓
331		✓	OP	OP	OP	OP	✓	OP	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	-
331-2		✓	OP	OP	OP	OP	✓	OP	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	✓
330/183		✓	OP	OP	OP	OP	-	-	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	-
330-2/183		✓	OP	OP	OP	OP	-	-	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	-
331 ABB		✓	OP	OP	OP	OP	-	✓	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	✓
331-2 ABB		✓	OP	OP	OP	OP	-	-	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	-
331-2V		✓	OP	OP	OP	OP	✓	OP	OP	OP	OP	OP	OP	OP	OP	✓	OP	✓	✓



**1 OR 2 GLASSES**

**309: INTEGRATED  
AUXILIARY MIRROR**

**ROTATING / TURNING  
OPTION**

**SUITABLE FOR BOTH  
LEFT AND RIGHT HAND**

# SERIE 300

**First class design**

Our first stage to offer the **top quality design. Functionality**  
**and excellent performance guaranteed** for a long lasting life.



Mod. 307



Mod. 308



Mod. 309

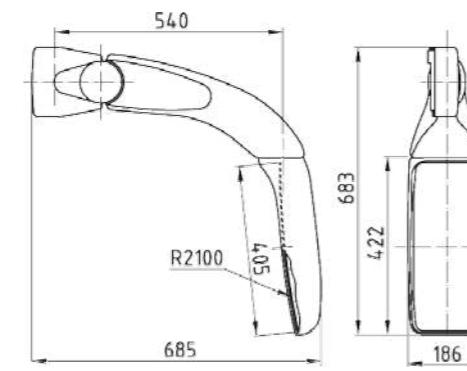


Mod. 313

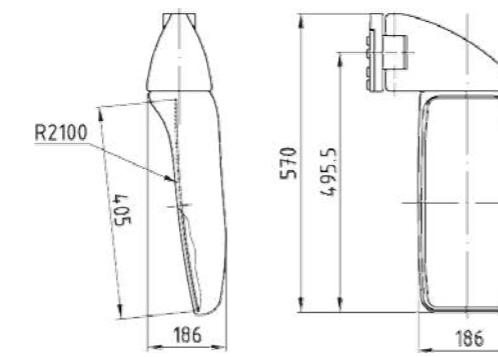


# SERIE 300

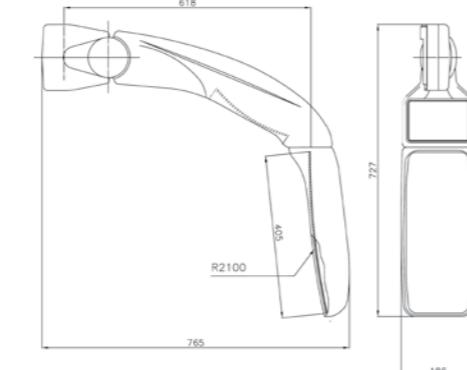
307



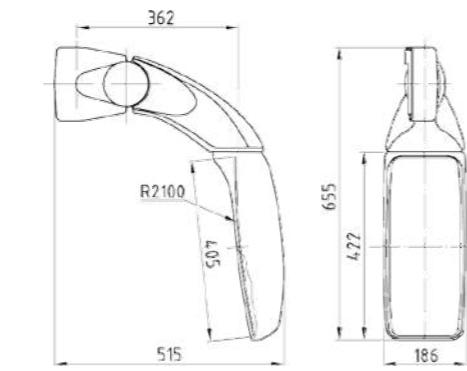
308



309



313



## Main Features & Options



Rotative covers



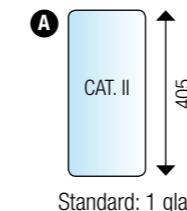
Body Mirror: 316

Upper or Lower<sup>A,B,C.</sup> II / IV Cat

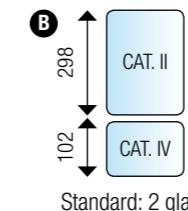
Auxiliary mirror



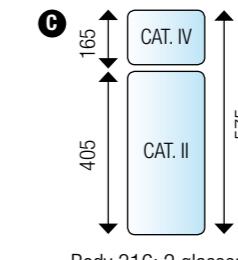
Removable connection



Standard: 1 glass



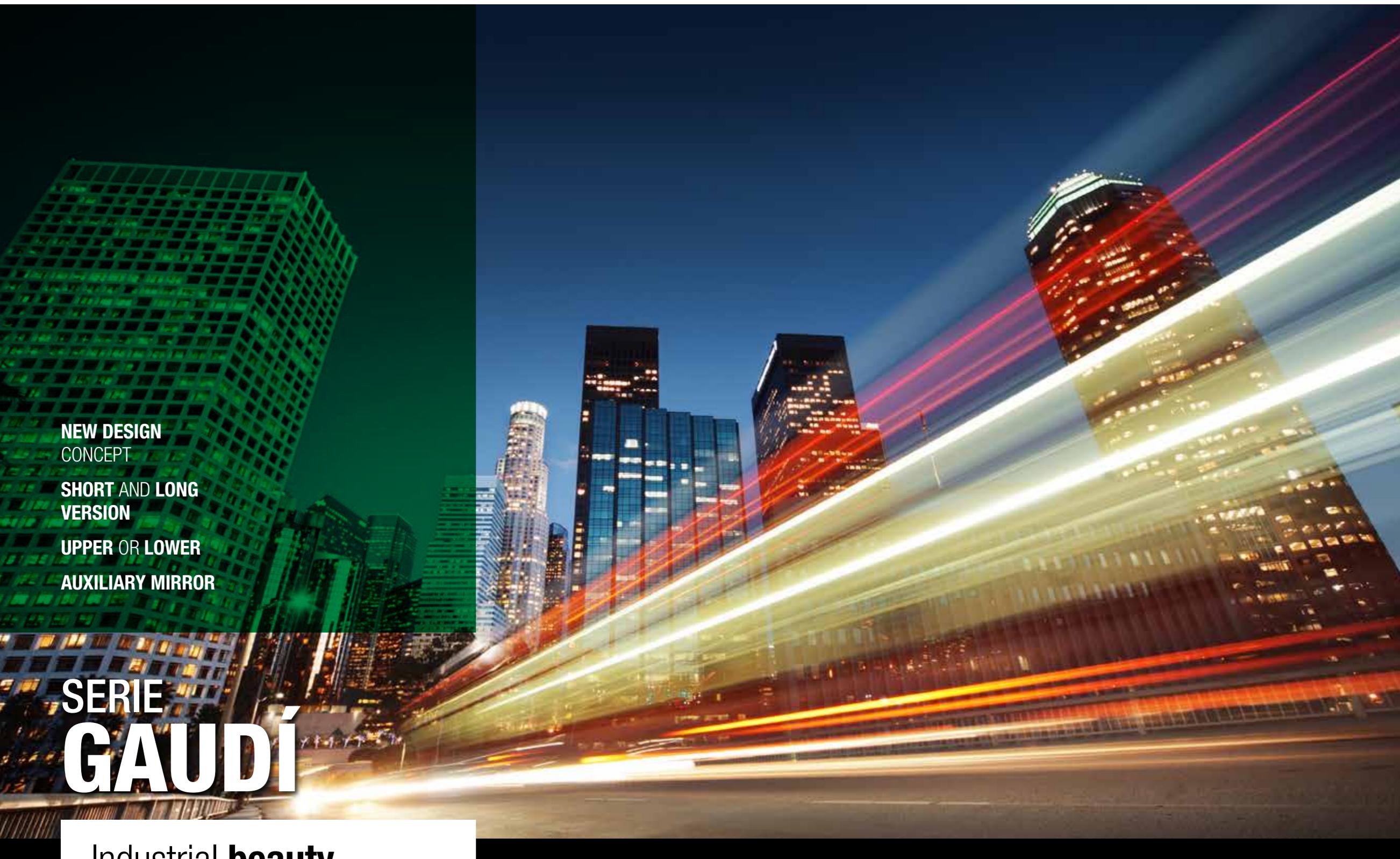
Standard: 2 glasses

<sup>A,B</sup> Standard Body      <sup>C</sup> 316 Body

Body 316: 2 glasses

SERIE 300	< 2m.	ELECTRICAL	HEATED	FLAT GLASS II Cat.	FIX	CATEGORY OF VIEW				
						BRACKETS	II	IV	V	VI
307	✓	OP	OP	OP	OP	✓	✓	-	OP	OP
307-2	✓	OP	OP	OP	OP	✓	✓	✓	✓	OP
307/316	✓	OP	OP	OP	OP	✓	✓	✓	✓	OP
308	✓	OP	OP	OP	OP	✓	✓	-	-	-
308-2	✓	OP	OP	OP	OP	✓	✓	✓	✓	-
308/316	✓	OP	OP	OP	OP	✓	✓	✓	✓	-
309	✓	OP	OP	OP	OP	✓	✓	-	RM	LM
309-2	✓	OP	OP	OP	OP	✓	✓	✓	✓	RM
309/316	-	OP	OP	OP	OP	✓	✓	✓	✓	RM
313	✓	OP	OP	OP	OP	✓	✓	-	OP	OP
313-2	✓	OP	OP	OP	OP	✓	✓	✓	✓	OP
313/316	-	OP	OP	OP	OP	✓	✓	✓	✓	OP

RM: Right Mirror // LM: Left Mirror



## Industrial beauty

Mirror inspired by the work of the Catalan architect Antoni Gaudí. Besides the fully functional behavior, it is incorporated the elegant and beauty feeling.

Mod. 320



Mod. 321

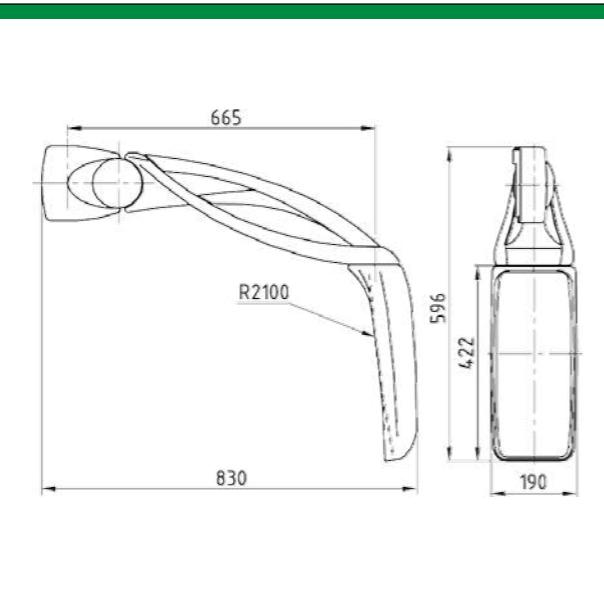


Mod. 320-316

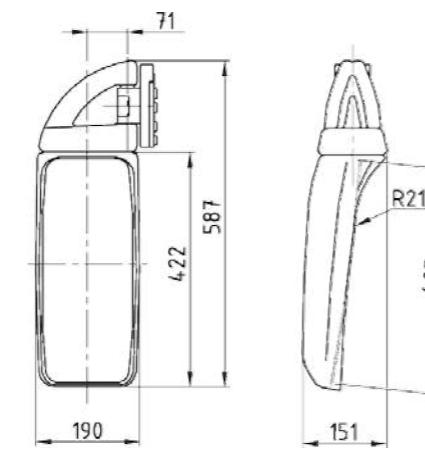


# SERIE GAUDÍ

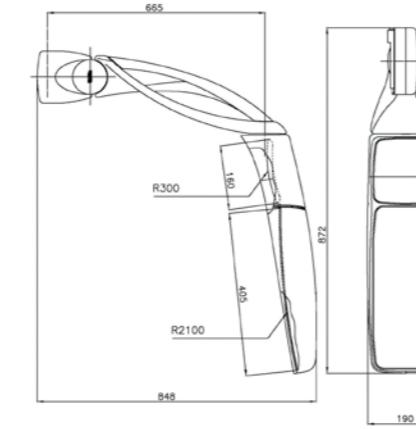
**320**



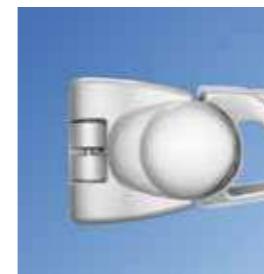
**321**



**320-316**



## Main Features & Options



Rotative covers



Auxiliary mirror



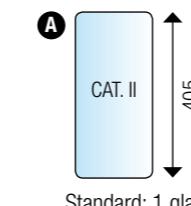
II / IV Cat.



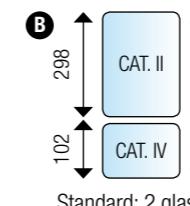
Upper or Lower



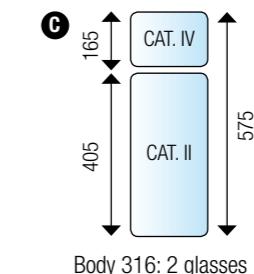
Removable connection



<sup>A,B</sup> Standard Body



<sup>C</sup> 316 Body



Body 316: 2 glasses

SERIE GAUDÍ	< 2m.	ELECTRICAL	HEATED	FLAT GLASS II Cat.	FIX	PULL OUT	CATEGORY OF VIEW				
							BRACKETS	II	IV	V	VI
320	✓	OP	OP	OP	OP	OP	✓	✓	-	OP	OP
320-2	✓	OP	OP	OP	OP	OP	✓	✓	✓	OP	OP
320/316	-	OP	OP	OP	OP	OP	✓	✓	✓	OP	OP
321	✓	OP	OP	OP	OP	OP	✓	✓	-	-	-
321-2	✓	OP	OP	OP	OP	OP	✓	✓	✓	-	-
321/316	✓	OP	OP	OP	OP	OP	✓	✓	✓	-	-

INTERIOR MIRRORS  
FUNCTIONALITY  
MULTIPLE  
COMBINATIONS  
ADAPTABILITY TO  
SEVERAL BODYWORKS

## SERIE 200

Classic products  
that stand the **test of time**

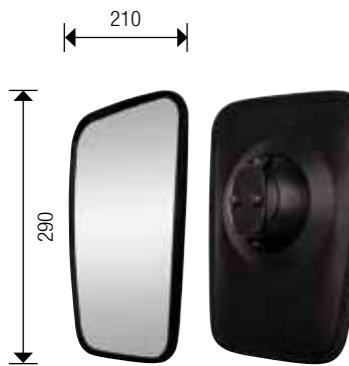
Classic products resting the test of time. Functionality and  
resistance as the main premises.

Also included in this range, the interior mirrors.

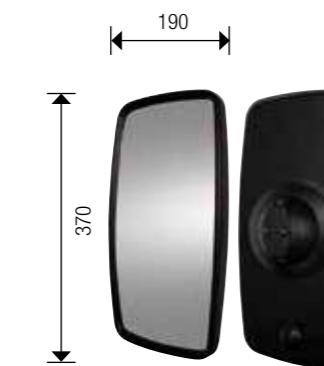


**SERIE 200****MIRRORS****Mod 270**

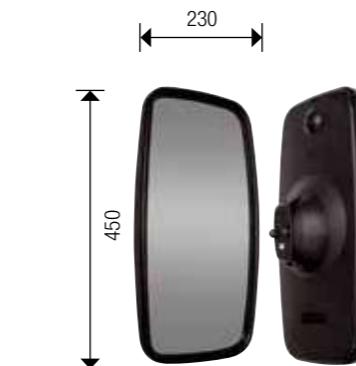
r=2100 (optional r=1300)

**Mod 275**

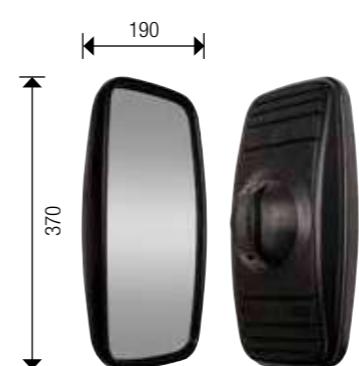
r=2100

**Mod 280**

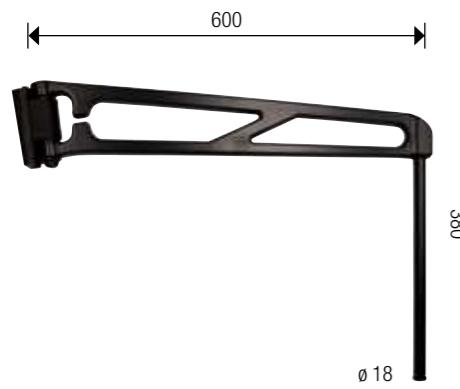
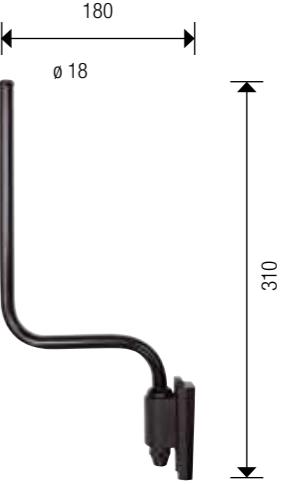
r=2100

**Mod 287**

r=2100

**Mod 288**

r=400

**CAST ARMS. EXTERIOR ARMS****Mod 540****Mod 280****Mod 360****Mod 260****Mod 150****TUBE ARMS. EXTERIOR ARMS****Mod 440****Mod 240****Mod 190**

# SERIE 200

## INTERIOR MIRRORS

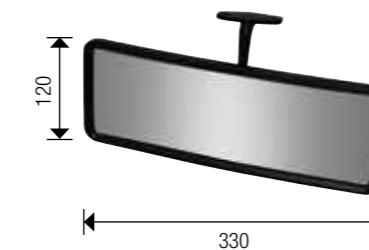
Mod 327

r=2100



Mod 273

r=2100

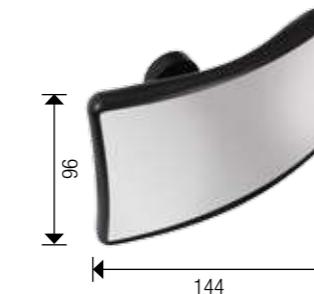


Mod 298

r=2100 (optional r=1300)



Mod 340-I

WINDSCREEN FIXATION  
r=220

## INTERIOR ARMS

Mod I-36



Mod IV



Mod IT



Mod IRM



SHAPE AND SIZE UNDER REQUEST



**EASY CONFIGURATION**

**FLEXIBLE AND EASY ADAPTATION  
AND INSTALLATION**

**ACTIVE AND  
RELIABLE WORK**

# CAMERAS & MONITORS

**Better Visibility = Better Safety**

Focused to get **the better visibility to provide the better safety** to our drivers.

Suitable for Bus, Coach, Mortorhome, Mini and Midibus. our cameras allow to handle and drive in difficult situations where visibility is limited.

Equipped with monitor systems, this provides a very useful and reliable tool for the driving assistance. There is **nothing hidden**.

Mod. 7"



Mod. 5"



Mod. C-IR



Mod. C-45

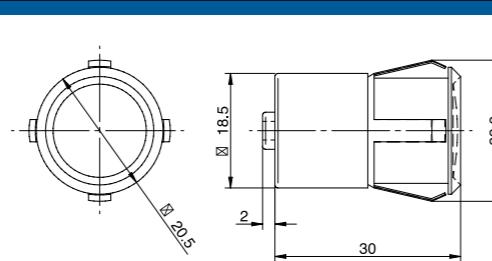


# CAMERAS

Latest Technology in the driving assistance field

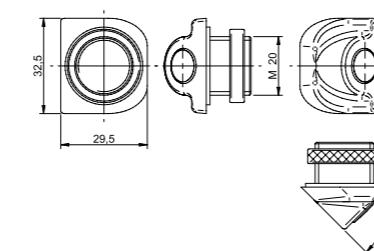
## CAMERA MOD C

» Reference 52 71 900  
CAMERA 120° PARKING LINES 4PIN



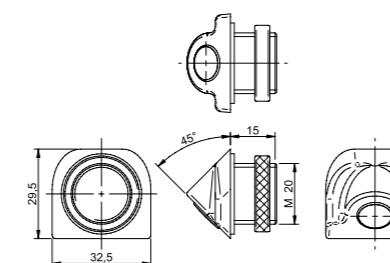
## CAMERA MOD C-45H

» Reference 52 71 901  
CAMERA 170° PARKING LINES 45° 4PIN



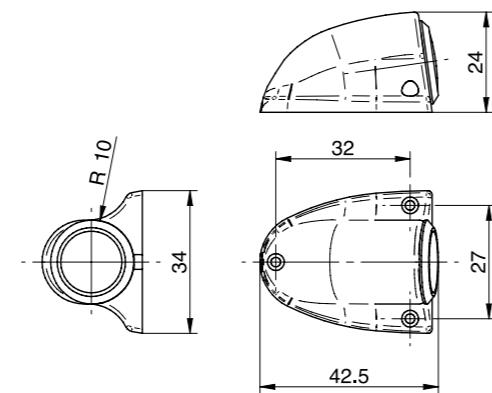
## CAMERA MOD C-45V

» Reference 52 71 911  
CAMERA 170° PARKING LINES 45° 4PIN  
INVERT.



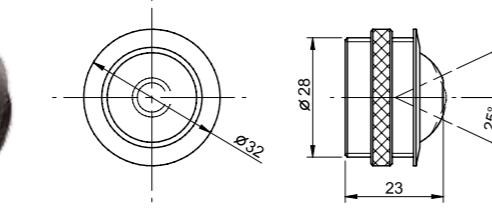
## CAMERA MOD C-S

» Reference 52 71 908  
CAMERA WITH HOUSING 170° 4PIN



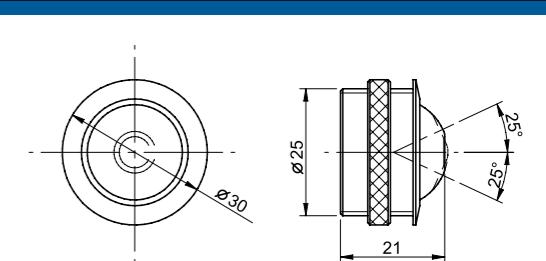
## CAMERA MOD C-EB150

» Reference 52 71 904  
CAMERA 150° EYEBALL 4PIN  
» Reference 52 71 905  
CAMERA 150° PARKING LINES EYEBALL 4PIN  
» Reference 52 71 907  
CAMERA 150° MIRROR EYEBALL 4PIN



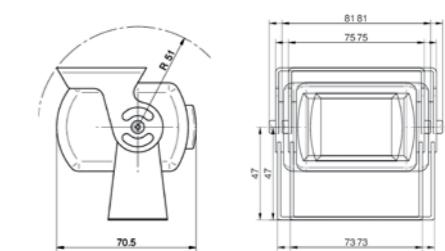
## CAMERA MOD C-EB170

» Reference 52 71 906  
CAMERA 170° EYEBALL 4PIN



## CAMERA MOD C-IR

» Reference 52 71 909  
CAMERA 120° IR. 4PIN Night Vision



## GENERAL TECHNICAL SPECIFICATION

- » External camera for Bus, Motorhome, Mini and Midibus
- » CMOS Sensor or Night Vision
- » Operating temperature between -30°C and 60°C
- » Vibration proof
- » PAL system
- » Waterproof IP67
- » Sunlight resistance glass
- » Parking lines and Mirror images available
- » Voltage DC 12V
- » Resolution: 712 x 486p
- » Approvals: S-E-02.6485 and E9-10R-04.6860
- » RoHS & REACH Compliance
- » 2 years limited warranty

MODEL	PLACE						FUNCTION			MINIMUM ILLUMINATION
	REAR	SIDE	DOOR	CLASS VI	INTERIOR	FRONT	PARKING LINES	MIRROR IMAGE	NIGHT VISION IR	
C	✓	-	-	-	-	-	OP	OP	-	0,3 LUX
C-45H	✓	-	-	-	-	-	OP	OP	-	0,3 LUX
C-45V	✓	-	-	-	-	-	OP	OP	-	0,3 LUX
C-S	✓	✓	✓	-	-	-	OP	OP	-	0,3 LUX
C-EB	✓	✓	✓	✓	✓	✓	OP	OP	-	0,3 LUX
C-IR	✓	-	-	-	-	-	✓	✓	✓	< 0,05 LUX

# MONITORS

Latest Technology in the driving assistance field

## MONITOR 5"

for Bus, Motorhome, Mini & Midibus

» Reference 52 72 107  
Monitor 5" 2 CAMERAS 4 PIN

» Reference 52 72 113  
Monitor 5" 4 CAMERAS 4 PIN QUAD



NEW



Cable 4 pins

### TECHNICAL SPECIFICATION

- » Vibration proof
- » PAL/NSTC (Auto) System
- » Sunlight resistance glass
- » OSD Menu
- » Optional Parking Lines
- » Voltage DC12V-DC32V
- » Resolution 800x480 Pixel
- » 2 or 4 AV Inputs & 2 or 4 Trigger wires
- » Operating temperature: -20°C to 70°C
- » Dimensions 132x95x25 mm

### Accessories



In dash adapter



Stand Alone Bracket



U-Shape bracket



Sunvisor



Remote control



OPTIONAL: Extention Cable

## MONITOR 7"

for Bus, Motorhome, Mini & Midibus

» Reference 52 72 105/3  
Monitor 7" 2 CAMERAS 4PIN

» Reference 52 72 102/2  
Monitor 7" 4 CAMERAS 4PIN QUAD



Cable 4 pins

### TECHNICAL SPECIFICATION

- » Vibration proof
- » PAL/NSTC (Auto) System
- » Sunlight resistance glass
- » OSD Menu
- » Optional Parking Lines
- » Voltage DC12V-DC32V
- » Resolution 800x480 Pixel
- » 2 AV Inputs & 2 Trigger wires or 4 AV Inputs & 4 Trigger Wires
- » QUAD Function
- » Operating temperature: -20°C to 70°C
- » Dimensions 177x122x26 mm

### Accessories



In dash adapter



Stand Alone Bracket



U-Shape bracket



Sunvisor



Remote control



OPTIONAL: Extention Cable



# LAMPS

A range of **ideas**

Redefined products standards **to keep on lighting the future.**

**Led lighting technology** suitable for wide kind of vehicles.

Classic lamps also available among our range.

Mod. 414



Mod. 407

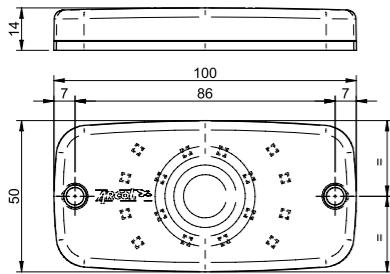


Mod. 499



# LED LAMPS

**461** (Interior Led)



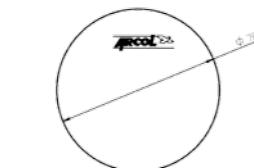
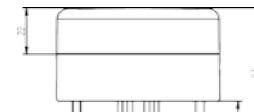
**LAMP MOD. 461i**

- » Touch Sensor switch
- » Auto Power Off (5min.) available
- » Vibration proof
- » Waterproof IP67
- » Voltage 10V to 30V
- » Operating temperature range : -30°C and 90°C

Lamp Mod. 461i / Ref. 1031000 (12V/24V)

**NEW**

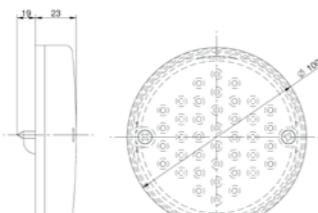
**414**



AVAILABLE IN 12V. OR 24V.

MODEL	FUNCTION
414-A1	Front turn
414-A1DF	Front turn error detection
414-A2	Rear turn
414-A2DF	Rear turn error detection
414-A2P	Rear turn and tail
414-AT	Rear fog
414-BT	Reversing
414-PS	Tail-stop
414-R	Posterior rear tail
414-DRL	Day light

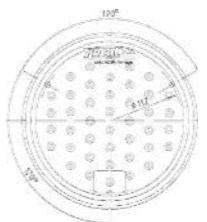
**405**



AVAILABLE IN 12V. OR 24V.

MODEL	FUNCTION
405-A2F	Rear turn
405-BTF	Reversing
405-PF	Tail
405-PSF	Tail-stop
405-PA2F	Tail rear turn
405-ATF	Rear fog
405-A1SAE	Front turn

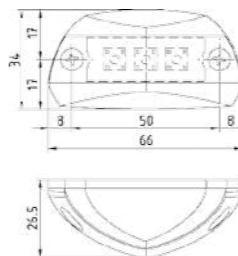
**322**



AVAILABLE IN 12V. OR 24V.

MODEL	FUNCTION
322-A2	Rear turn
322-PS	Tail-stop
322-BTF	Reversing

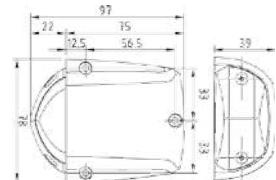
**407** (Clearance Lamp)



AVAILABLE IN 12V. OR 24V.

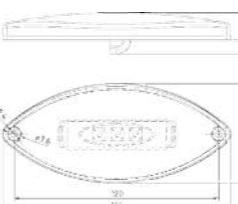
MODEL	FUNCTION
407-B	Front
407-R	Rear

**Cover 407**



MODEL	FUNCTION
407	Housing for surface fitting

**311** (Reflex Reflector)

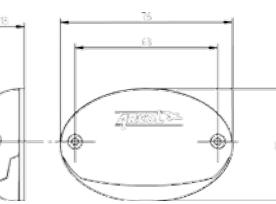


AVAILABLE IN 12V. OR 24V.

MODEL	FUNCTION
311-CT	Side marker-reflex reflector

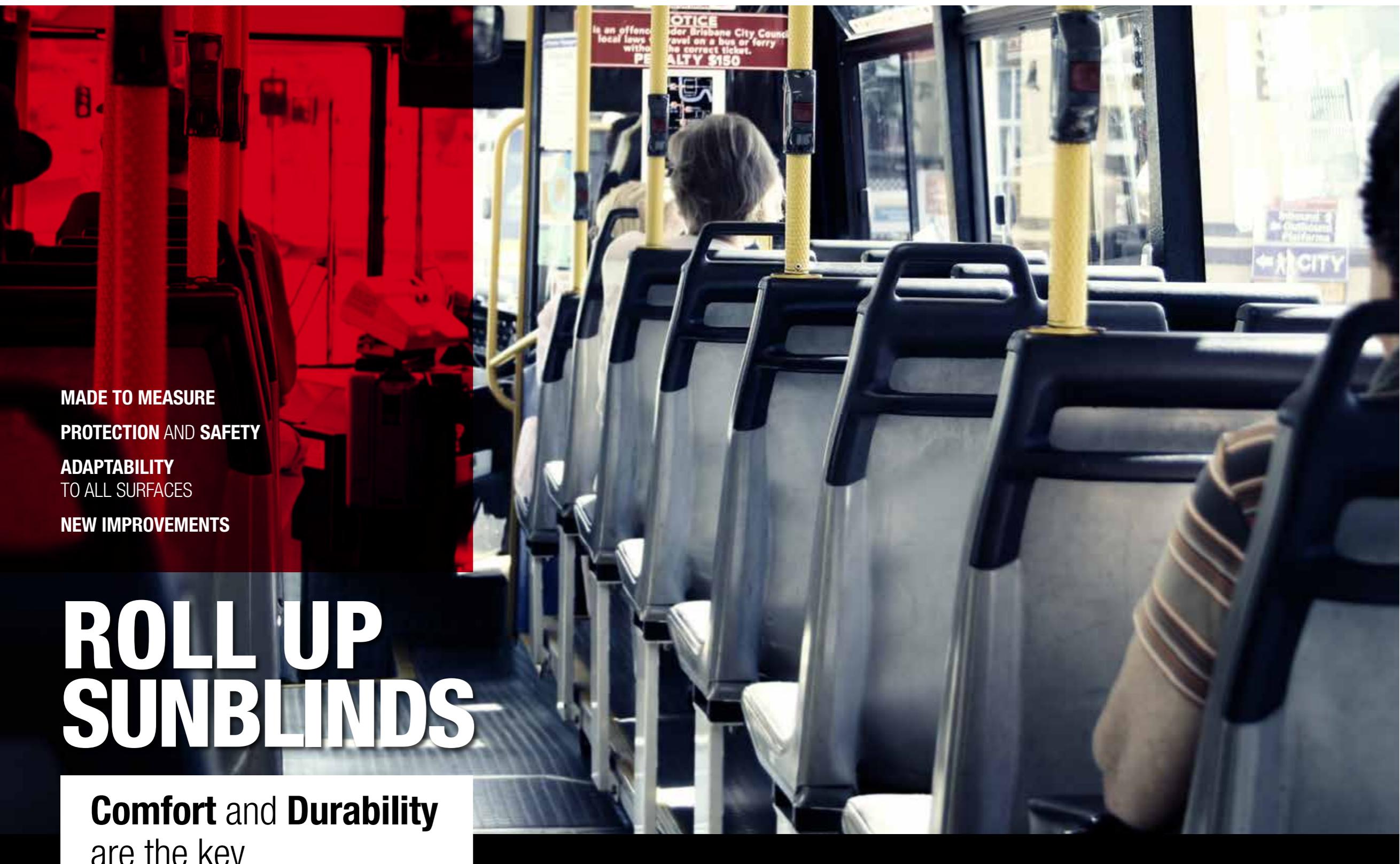
INS: INTERIOR SCREW

**499** (Internal Lights)



AVAILABLE IN 12V. OR 24V.

MODEL	FUNCTION
499-B	White
499-R	Red
499-AZ	Blue



The ideal recommendation for protection, made under costumer specific requirements. **High quality products with proven comfort and durability.**

PANTOGRAPHIC



PASSENGER



MANUAL



ELECTRICAL



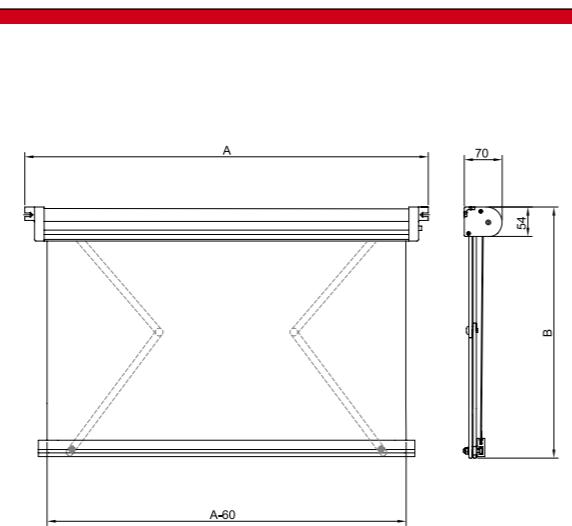
# ROLL UP SUNBLINDS

## Pantographic



Manual or electric version

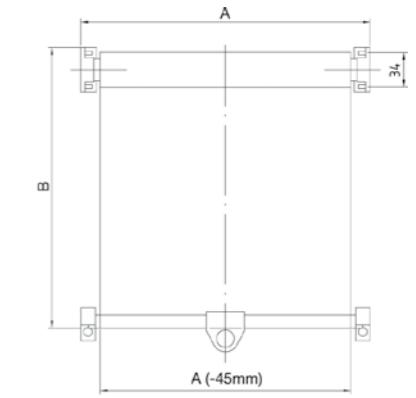
ACCORDING TO APPROVAL R-118 AND EN45545



## Passenger

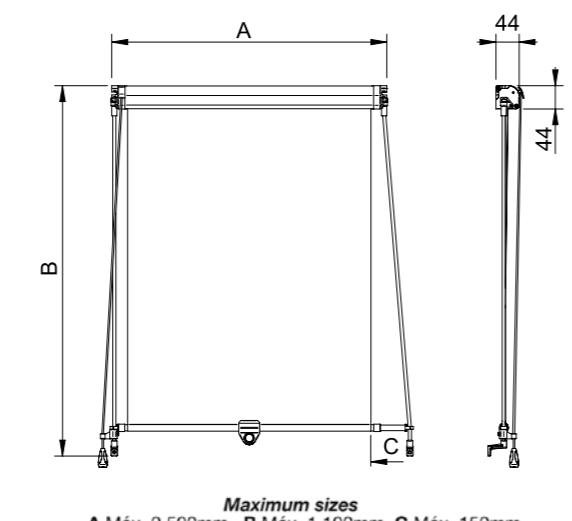


ACCORDING TO APPROVAL R-118 AND EN45545



**Maximum sizes**  
A Máx. 1.600mm B Máx. 1.100mm

## Manual



ACCORDING TO APPROVAL R-118 AND EN45545

## Textiles



TRANSLUCENT      OPAQUE      TRANSLUCENT  
WITH OPAQUE STRIP\*

## Colors

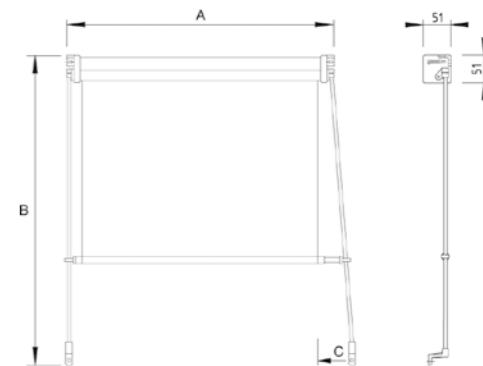
Standard sunblinds colour is grey.  
Other colours please send your request.

(\*) The standard height of the opaque strip/blind strip is 220mm,  
but this high can be as per client request.

## Electrical



ACCORDING TO APPROVAL R-118 AND EN45545



**Maximum sizes**  
A Máx. 2.500mm B Máx. 1.200mm C Máx. 150mm

## NEW Electronic Automatic Stop System

### Features:

- Improved safety system
- Avoid motor overheating
- Extend sunblind lifetime

NEW

## Main features



### Slip Ring

Innovative system of floating rings that allow the curtain to operate without the cables becoming twisted.



FRENCH AND SPANISH  
REGULATIONS

LED SCHOOL SIGNALS

PROTECTION AND SAFETY

NEW IMPROVEMENTS

# SCHOOL TRANSPORT SIGNALS

**Child safety**  
is important to us all

Our priority is to ensure the safety for the children and so we have improved our reflectant School Transport Signals and with LED technology. We have them ready in different sizes and available to meet the regulation's requirement for most of the markets.

LED

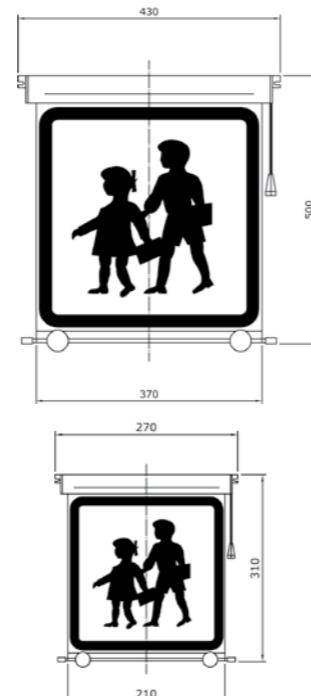
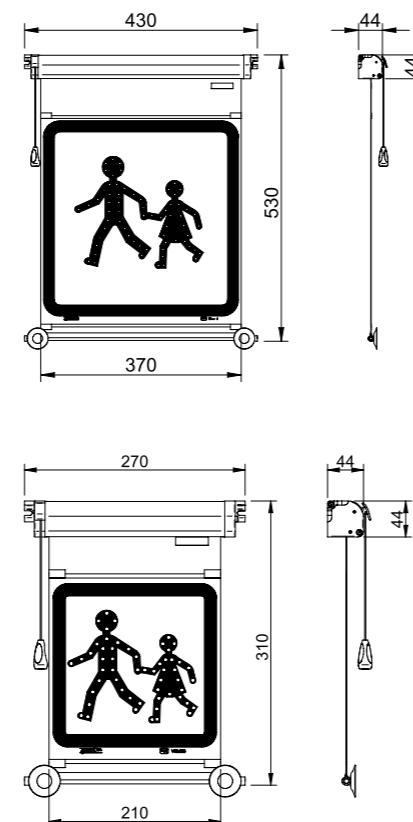


75<sup>TH</sup>  
**ARCOL** 

# SCHOOL SIGNALS

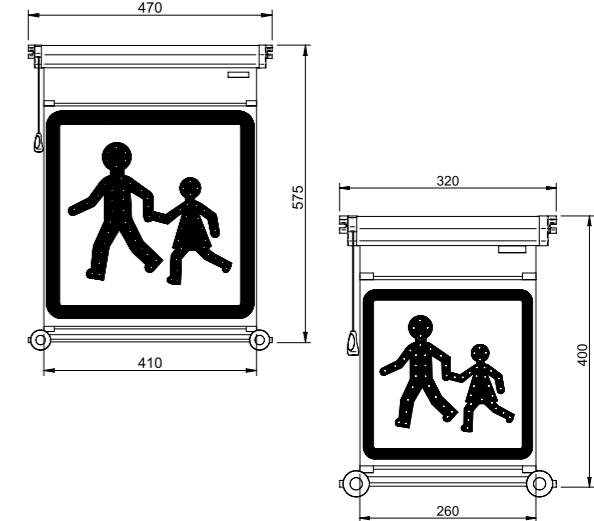
Spanish and french regulation valid in most of the countries

## Spanish regulation



ACCORDING TO APPROVAL R-118 AND EN45545

## French regulation



ACCORDING TO APPROVAL R-118 AND EN45545



### Slip Ring

Innovative system of floating rings that allow the curtain to operate without the cables becoming twisted.



## Automatic Power off Sensor

### Features:

- » Improved safety system against short-cut
- » Minimize Led temperature
- » Energy saving
- » Extend School signal lifetime

**NEW**

## Optional



## Flash Function and Error Detection Device

» Reference 52 33 005  
FLASH.DEVICE SCHOOL LED 12/24V

### Features:

- » For both 12V and 24V
- » 3 different protection systems:
  - » Against overvoltage
  - » Short-circuit
  - » Inverted polarity protection

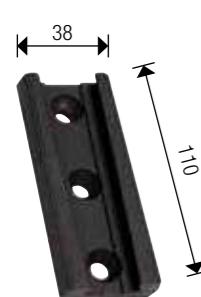
**NEW**

# REAR VIEW MIRROR BRACKETS

## BRACKETS

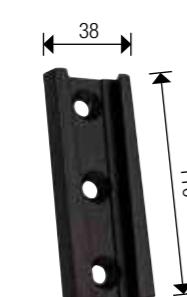
Mod.U

8° leaned



Mod.C

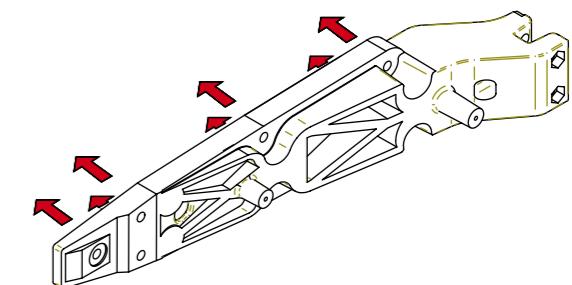
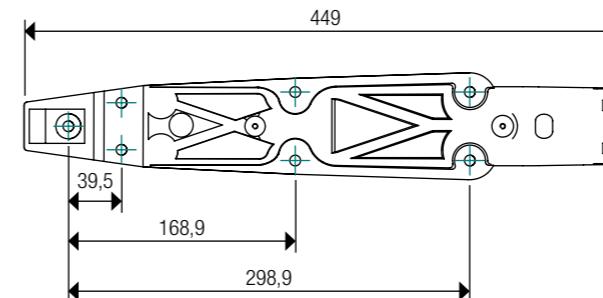
Flat



Mod.AJ

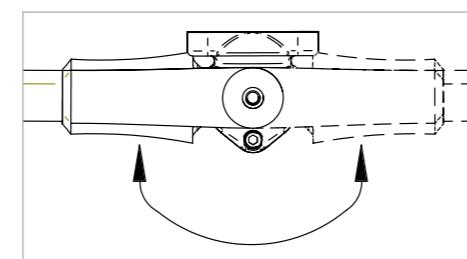
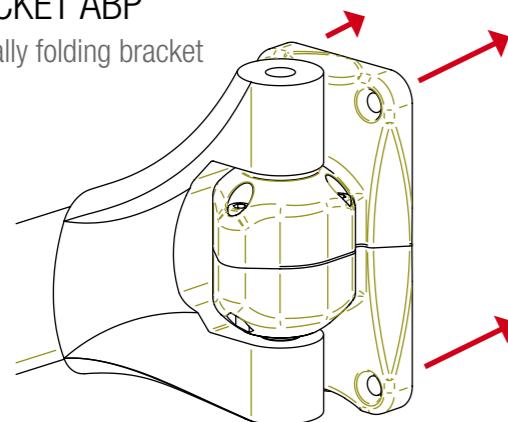
Mod.CAL

BRACKET SERIE BORN



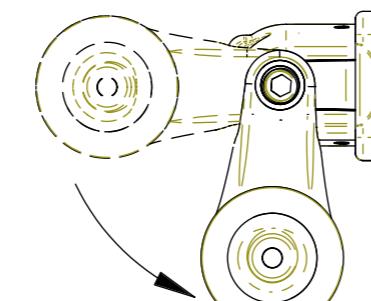
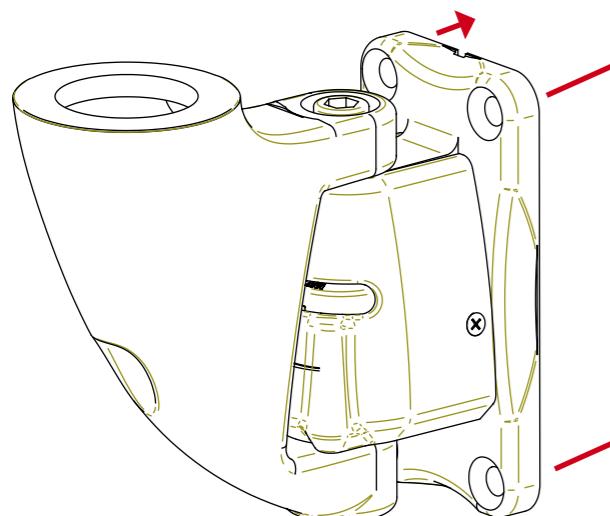
BRACKET ABP

Manually folding bracket

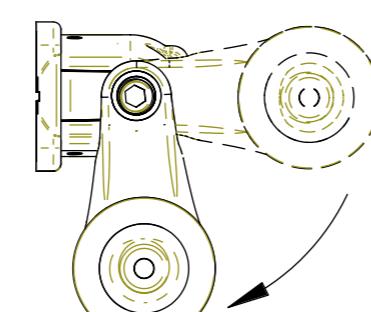


BRACKET ABE

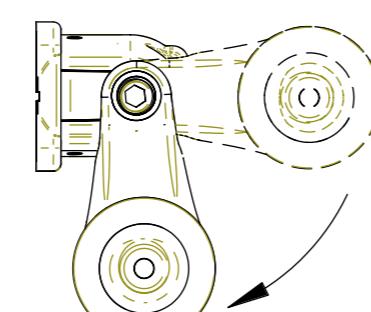
Electrically folding bracket



LEFT REAR VIEW MIRROR

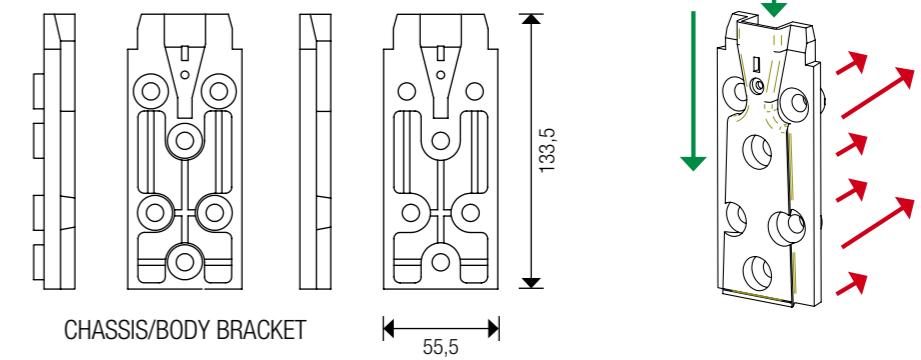


RIGHT REAR VIEW MIRROR

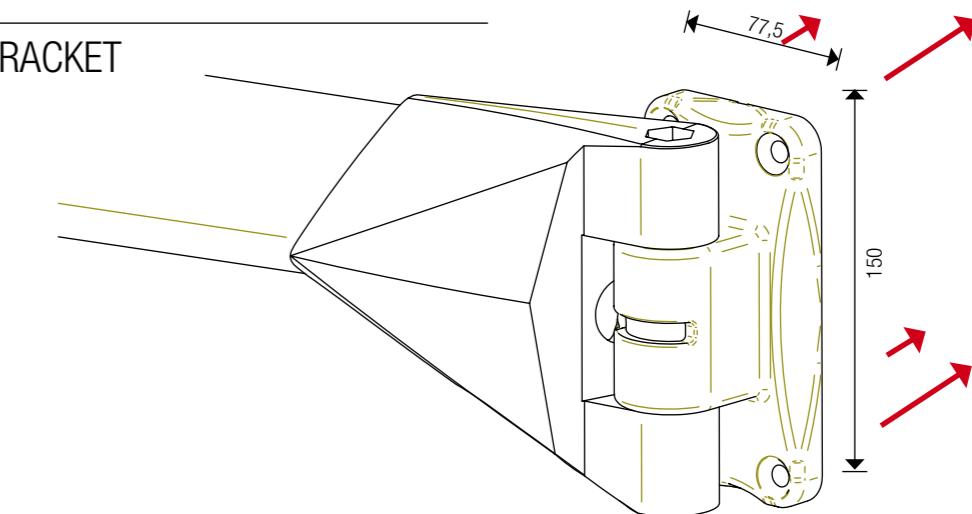


REMOVABLE BRACKET

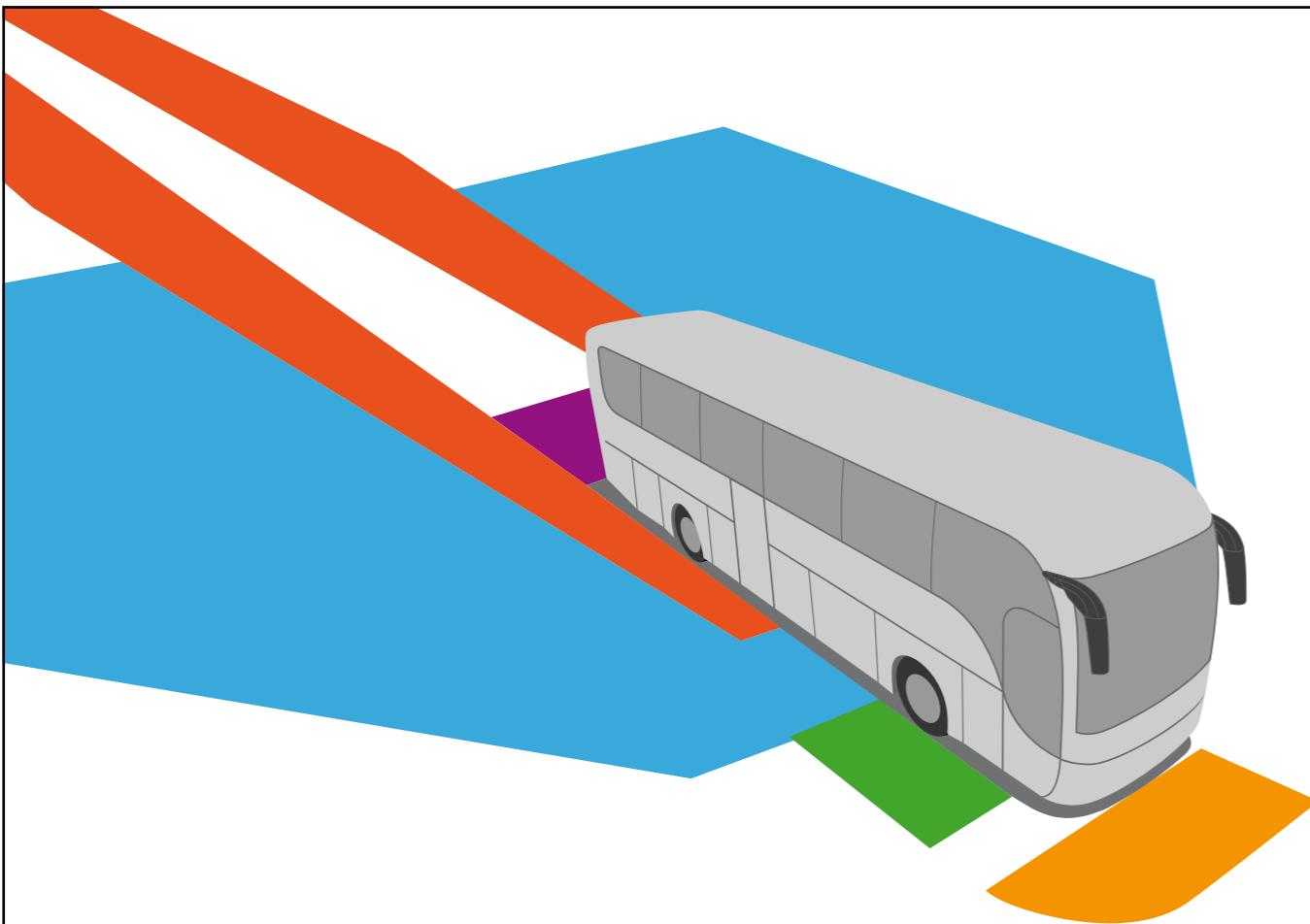
Removable brackets need a chassis/body bracket



FIXED BRACKET



## REAR VIEW MIRRORS LEGISLATION



ECE Regulation No. 46 - Rev.6 - Devices for indirect vision

Vehicle Category	Category I Interior Mirror	Category II Primary Mirror (Side/ Wing Mirror)	Category III Primary Mirror (Small Mirror)	Category IV Wide-Angle Mirror (Side/ Wing Mirror)	Category V Proximity Mirror (Door Mirror)	Category VI Front Mirror
M2/M3	Optional	Required	Not Permitted	Optional	Optional	Optional
Driver's Side	-	✓	-	✓	✓ 2m	✓ 2m
Passenger's Side	-	✓	-	✓	✓ 2m	✓ 2m
N2	Optional	Required	Not Permitted	Required	Required	Optional < 7,5t Required > 7,5t
Driver's Side	-	✓	-	✓	Optional 2m	✓ 2m
Passenger's Side	-	✓	-	✓	✓ 2m	✓ 2m
N3	Optional	Required	Not Permitted	Required	Required	Required
Driver's Side	-	✓	-	✓	Optional 2m	✓ 2m
Passenger's Side	-	✓	-	✓	✓ 2m	✓ 2m

▲ Fitted at least 2m above the ground

**Category M:** Vehicles with at least 4 wheels designed to carry passengers.

**M2:** More than 9 seats, mass below 5 tonnes.

**M3:** More than 9 seats, mass over 5 tonnes.

**Category N:** Vehicles designed to carry goods.

**N2:** Mass between 3.5 to 12 tonnes.

**N3:** Mass over 12 tonnes.

## LAMPS LEGISLATION



REGULATION R48 ECE

Function	Obligatory	Optional	Remarks
➡⬅ Tail	2	-	-
➡⬅ Rear Tail	2	2*	*M2, M3 cat. Without clearance light
➡↔ A1 - Front Turn Signal	2	-	Distance to dipped beam light: 1>40mm.; 1a>20-<40mm.; 1b<20mm.
➡↔ A2 - Rear Turn Signal	2	2*	*M2 and M3 cat.
➡↔ A5 - Side Turn Signal	2	Minimum	Vehicle length < 6 meters
➡↔ A6 - Side Turn Signal	2	Minimum	Vehicle length < 6 meters
STOP S1 – Stop	2	2*	*Except when S3 cat. Lights are attached
STOP S3 – Stop	-	1	Obligatory vehicles M1 cat.
R Reversing	2	2	1 Obligatory + 1 Optional for vehicles < 6 meters
FA Fog	1	1	>100 mm of Stop Light
FA Front and Rear Clearance Light	2/2	2/2	Obligatory for vehicles >2.1 meters Optional for vehicles 1.8 and 2.1 meters
REF Reflex Reflector	2	Par No.	-
REF Side Marker – Reflex Reflector	According to length of vehicle min. 1 at least one in the middle third	-	Obligatory for vehicles > 6 meters length Optional for vehicles < 6 meters length
DRL Day Running Lamp	2	-	-

➡⬅ Tail  
 ➡↔ Turn  
 STOP Stop  
 FA Centre Stop  
 R Reversing  
 FA Fog  
 DRL Day Running Lamp  
 REF Reflex Reflector  
 FA Clearance Lamp  
 REF Side Marker - Reflex Reflector



# CAMERAS & LAMPS SUMMARY

CAMERAS	MODEL	PLACE		FUNCTION		MINIMUM ILLUMINATION								
		REAR	SIDE	DOOR	CLASS V									
	C	✓				OP	OP	0,3 LUX	120	CMOS	22,8	18,5	30	
	C-45H	✓				OP	OP	0,3 LUX	170	CMOS	32,5	29,5	28	
	C-45V	✓				OP	OP	0,3 LUX	170	CMOS	32,5	29,5	28	
	C-S	✓	✓	✓		OP	OP	0,3 LUX	170	CMOS	42,5	34	24	
	C-EB	✓	✓	✓	✓	OP	OP	0,3 LUX	150	CMOS	31,8	27,8	23,3	
		✓	✓	✓	✓	OP	OP	0,3 LUX	170	CMOS	29,9	24,8	20,8	
	C-IR	✓				✓	✓	✓	< 0,05 LUX	120	CCD	81	98	70,5

LED LAMPS	Model	(mm.)	A1	A1D	A1B	A2	A2D	A2P	AT	B	BT	P	S	S3	PS	R	DRL	DIMENSIONS (Circular Models)								
																	FRONT TURN	FRONT TURN & ERROR DETECTION	FRONT TURN CLEAR	REAR & TURN	REAR TURN & ERROR DETECTION	REAR TURN & TAIL	REAR FOG	POSITION	REVERSING	TAIL
	414	78 Ø	✓	✓	-	✓	✓	✓	✓	-	✓	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	405	100 Ø	✓ SAE	-	-	✓	-	✓	✓	-	✓	-	✓	-	✓	✓	-	-	-	✓	✓	✓	✓	-	-	-
	322	136 Ø	-	-	-	✓	-	-	-	-	-	-	✓	-	-	-	✓	-	-	-	-	-	-	-	-	-

INTERNAL LED LIGHTS	Model	(mm.)	B	R	A	V	LED REFLECTOR	Model	(mm.)	A-5	A-6	CT	C	DIMENSIONS			
														CAT. V.	CAT. VI	SIDE MARKER & REFLECTOR	REAR REFLEX REFLECTOR
	407	66 x 34	✓	✓	-	-	LED REFLECTOR	311	134 x 58	-	-	✓	-				
	499	76x50	✓	✓	✓	-	WHITE										
	461	100x50	✓	-	-	-	RED										
	461i	100x50	✓	-	-	-	BLUE										
							GREEN										
							GLASSÉ										
							WHITE WITH SWITCH										
							WHITE WITH SOFT LIGHT										



SINCE 1942

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the policy of development and continuous improvement of our products.

