





INDEX

HISTORY INDUSTRIES ABOUT US PRODUCTS	6 6 7 8
eMIRROR The CMS by Arcol	10
ADAS Blind Spot R-158	20 21
CAMERAS & MONITORS Cameras Monitors	24 25
REAR-VIEW MIRRORS Serie Diagonal Serie Born Serie 345 Serie 340 Serie Amida 1.5 Serie Amida Serie 300 Serie 200 Interior Mirrors	26 30 34 38 42 46 50 54
ROLLER BLINDS Roller Blinds	62
SCHOOL SIGNS School Transport Signs	66
TECHNICAL TABLES REAR-VIEW MIRRORS LEGISLATION	70 86

HISTORY

noisiv gnivlove eMirrer by arcel













Stay Tuned



INDUSTRIES



Coach

Our extensive experience in this industry allows us to cover all needs for each customer. Aerodynamic products as a result of exclusive designs



City Bus

Under the premises of safety and design together with the latest technology to get the best visibility in the cities



Mini Bus

Innovation, security, design... adapted to smaller buses to achieve the maximum functionality within the cities



Motorhome

Concept of travel, enjoying the journey... that is adventure but without forgetting safety and design, comfort and functionality and of course the newest technology



Special Vehicles

Strong and resistant products along with the latest technology also suitable for these vehicles: cameras and surveillance systems



Train / Tram

Special developments also suitable for the railway and tram industry. We do highlight the electrically folding systems, which become essential when arriving at the rail station

ABOUT US

R&D

Our R&D team has extensive experience focused on the development of the different products, from its conception to its launch. Always paying close attention to the detail with the aim of achieving customer satisfaction with high quality products. We complement it with firmware development. All our developments are homologated according to the applicable regulations.

Desian

Design based on innovations focused on product development needed to ensure road safety. Tailor made & exclusive products.



Manufacturing & Production Processes

Industrial production with operational excellence, in-house flexible processes, high-quality products and short delivery times.

Internalization of operations and resources to offer the best range of products and solutions to our customers: 3D printing machines, new plastic injection machines, SMD production line, R&D test laboratory, climatic chamber,... Covering both mechanical and electronics Business Units needs.

Quality

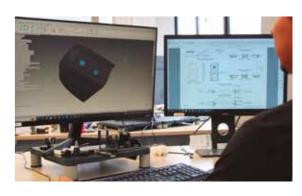
Compliance with manufacturing, communication and trade standards achieving the following certifications: ISO 14001:2015, ISO 9001:2015 and IATF 16949:2016.

Customer Service

Close customer support at all stages from product purchased and after sale.

Evolving Technology & Safety

Commitment to technological evolution in products that support and guarantee greater road safety including ADAS developments: cameras, eMirror, Memory system and many more to come.









PRODUCTS

- l eMirror
- | ADAS
- Cameras & monitors
- Rear-view mirrors
- Roller Blinds
- School Signs

	СОАСН	RIES
	CITY BUS	NDUSTRIES
	MINI BUS	Z
	мотогноме	
	SPECIAL VEHICLES	
具	TRAIN / TRAM	

eMirror is the digital CMS (Camera Monitoring System) with high definition cameras (HD) that replaces mirrors.

It is an innovative product that provides improved **vision under any weather conditions**.

It optimizes the total cost of ownership and guarantees greater safety.

Increased **Safety**



arcol.es/emirror



eMirror DYOuTube







HOMOLOGATION ACCORDING R46 - R10 - R118

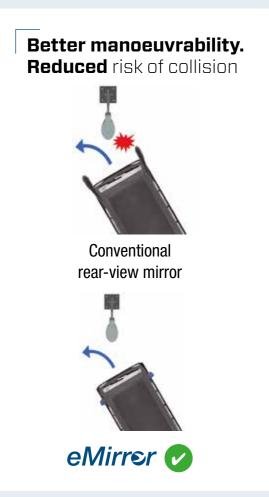






BENEFITS

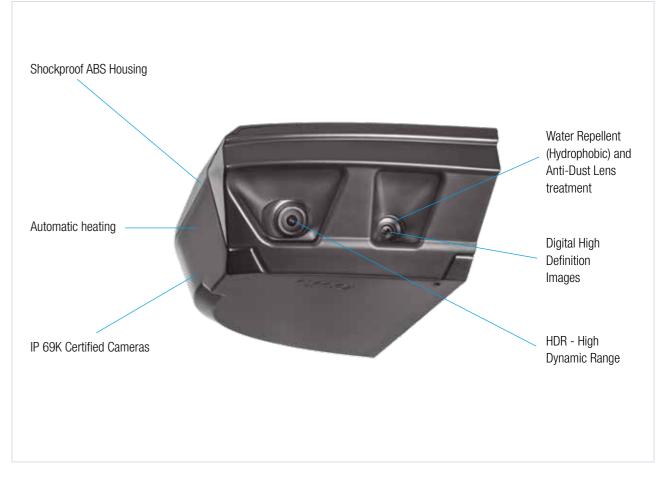






TECHNICAL SPECIFICATIONS







17

ACCESSORIES

Joystick

This control is connected via Can-bus to the *eMirror* system to configurate vehicle lines, and adjust the functionalities of heating, camera selection and brightness.





HEATING:

Heating automatic

ating omatic mode







HDR:





VEHICLE LINES:

BRIGHTNESS:



Automatic brightness



anual ahtness

Vehicle lines are ON

Vehicle lines are OFF

eMirr©r Protection Housing

Compact metallic solution that avoids damage to the camera from the impact of external elements.



ADDITIONAL FUNCTIONALITIES

eMirr€r Collision Warning

Better manoeuvrability. Reduced risk of collision.

- Located under the right camera with an easy installation.
- It detects elements in its surroundings.
- It works until 5 km/h.

SYSTEM DIAGRAM











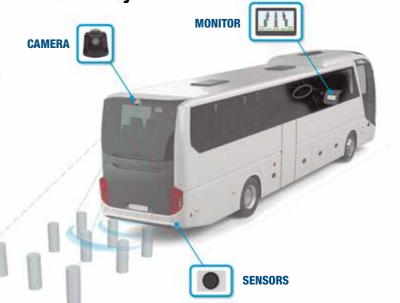
Collision Warning Video

R158 Rear Detection and Visibility

The monitor, in reverse gear, warns of object detections for collision-free manoeuvring.

MORE INFORMATION

PAG. 21



18

Advanced Driver Assistance Systems (ADAS)



15 m 3 m

HOW DOES IT ALERT?

Rear-view mirror led will be iluminated when there is an object approaching to the blind spot area of the vehicle. If the signal is activated, the buzzer will also beep (with the same frequency).

Rear-view mirror led and buzzer will standby (no activity) if there is no object approaching within blind area of your vehicle.

BLIND SPOT:

Increase your

driving security

TECHNICAL SPECIFICATIONS

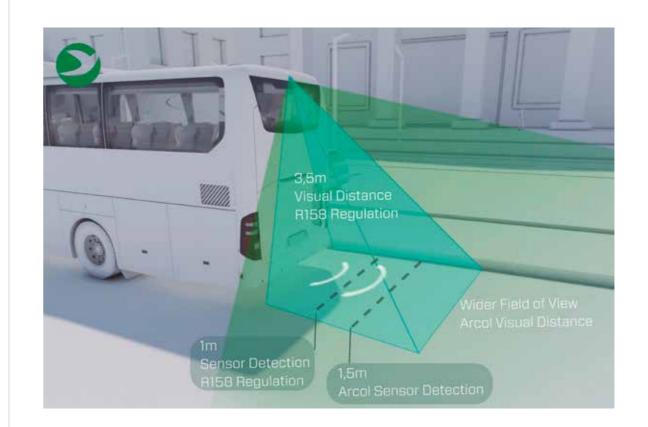
- » Operating frequency24.0 25 GHz
- » Transmit Power (max.)10 dBm
- » Speed Range1 100 Km/h (differential speed)
- » Direction of movement Approached or overtaken by vehicles
- » Operating Voltage12 24V
- » Working current < 200mA</p>
- » Working temperature -40 °C + 85°C

R158 Rear Detection and Visibility

Incorporation of reversing sensors designed to assist safe reversing manoeuvring.

When the vehicle performs the reverse maneuver, the sensors are activated and provide the driver with visual and audible alerts to warn of any potential danger in the area behind the vehicle.

Helps the driver to avoid collisions or other accidents when reversing.





Rear Detection and Visibility Video

INDUSTRIES

Focused on **the best visibility to increase safety.** 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, it provides a very useful and reliable tool for the driving assistance.

Better Visibility =

Increased Safety

Easy configuration

Flexible and easy adaptation and installation

Active and reliable work



C-EB



C-45



C-S



7"



CAMERAS & MONITORS

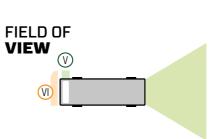








CAMERAS



TECHNICAL SPECIFICATION

- » External camera for Bus, Motorhome, Mini and Midibus
- » CMOS Sensor
- » 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
- » Homologated: R10 and R-46







MAIN **FEATURES**

Integrated Sunvisor



Stand alone Bracket



U-shape Bracket



Extension Cable / OPTIONAL



AVAILABLE IN DIFFERENT LENGTHS 6m - 8m - 10m - 15m - 20m - 30m

MONITORS

Latest Technology in the driving assistance field

TECHNICAL SPECIFICATIONS

- » 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
- Operating temperature:-20°C to 70°C
- » Dimensions 177x122x26 mm
- » R10
 - · 2 Cameras Monitor System: E2*10R06*22066*00
 - · 4 Cameras Monitor System: E2*10R06*22067*00
- » R46
- · 2 Cameras Monitor System 160°: E9*46R04/09*16493*00
- · 4 Cameras Monitor System 160°: E9*46R04/09*16492*00
- » R118
- · E9*118R04/00*1388*00





ACCESORIES

- » In Dash Adapter
- » Remote Control

	СОАСН	RIES
	CITY BUS	NDUSTRIES
	MINI BUS	Z
	мотокноме	
	SPECIAL VEHICLES	
具	TRAIN / TRAM	

On the Diagonal Series each model equiped with the **blind spot icon** ensures full vision of everything moving around the vehicle and, therefore, a smarter, safer driving experience.

Design, comfort and **safety**

in the same series

Memory Settings and **Blind Spot icon**

High-end design

and finishes

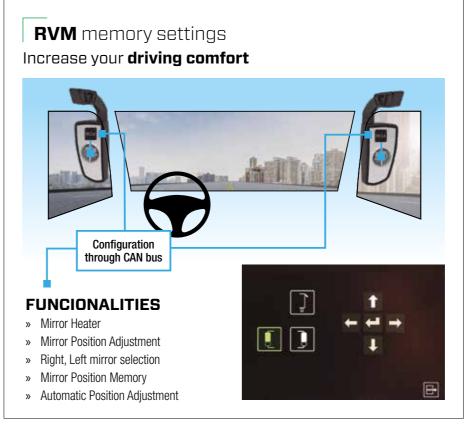
Flexibility and adaptability for all industries

Up to Four mirrors









MAIN FEATURES

II / IV / V / VI Cat

Folding System in case of Impact Several Lenghts Available







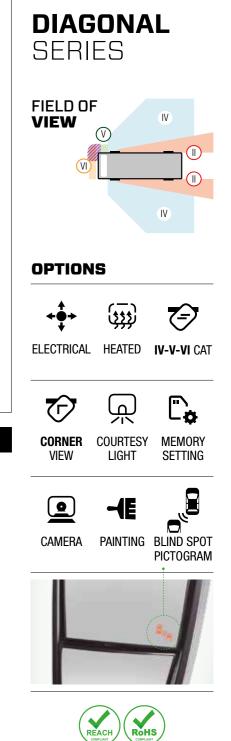






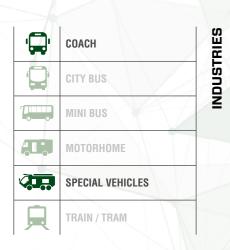












Born is the series with **stylized and** aerodynamics design only suitable for special vehicles and optimizing the perfect view of all categories.

Top of the range

on the coach

Totally integrated

Stylized mirror

Aerodynamic surface

Perfect vision

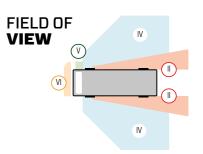








BORN SERIES



OPTIONS







ELECTRICAL HEATED IV-V-VI CAT



MAIN **FEATURES**

Upper or Lower



Folding Arm



Following the latest trends, this mirror shows how innovation and design meet in a unique product.

Motorhome and **MiniBus** Solutions

34

Mirror

for motorhomes

Design concept

Folding Brackets

Bicolor

New light weight design for 345-190





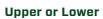




MAIN FEATURES

Integrated camera





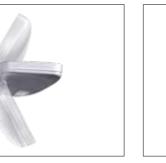


Electric Folding (345-143)



Courtesy light

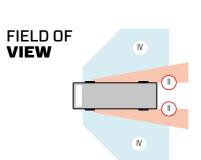




Bicolor painting



345 SERIES



OPTIONS







ELECTRICAL HEATED

COURTESY LIGHT







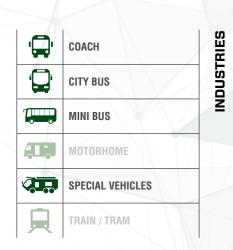
CAMERA PAINTING



ELECTRIC FOLDING (345-143)







Integrated cameras provide more safety and further optional features such as spot light, ...

Safety and additional features

38 Four axes

of rotation

Available different lengths

Auxiliary mirrors

Short versions: upper and lower







Four axes of rotation

340



Several Lenghts Available



V / VI Cat. By Camera





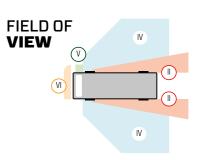
V / VI Cat.



II / IV Cat.



340 SERIES



OPTIONS







ELECTRICAL HEATED IV-V-VI CAT





FLAT GLASS CAMERA





Timeless design customizable thanks to the diversity of features available to get the **perfect combination of comfort and safety** in cities and long distance journeys.

The Amida series is **evolving**

Short and long version

42

Upper or **lower**

Arm folding version available

Optional **bracket folding** version



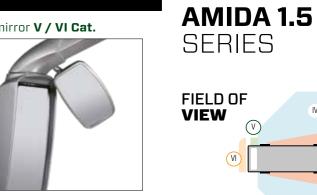


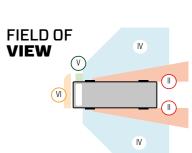












ELECTRICAL HEATED IV-V-VI CAT

(

OPTIONS

•

II / IV Cat.

330

330-183















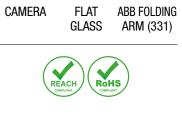


ABB Folding Arm 331





331

	соасн	RIES
	CITY BUS	NDUSTRIES
	MINI BUS	Z
	MOTORHOME	
	SPECIAL VEHICLES	
具	TRAIN / TRAM	

Versatility and simplicity are the hallmarks of the **AMIDA** series.

The different arm lengths allow the AMIDA series to **offer a personalised product**, thus addressing our clients' multiple needs.

A solution for **multiple needs**

Available different lengths

as per customer request

1 or 2 glasses

46

Auxiliary mirror

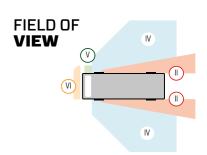
Folding system, electrically as option







AMIDA SERIES



OPTIONS







ELECTRICAL HEATED IV-V-VI CAT





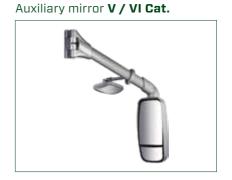
FLAT ABB FOLDING GLASS ARM (314-143)





Several Lenghts Available





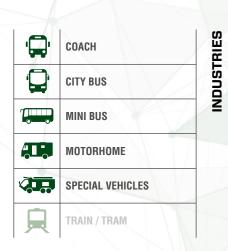






Electric Folding (314-143)





Its careful design, which integrates the rear-view mirror's main body, along with its **great versatility** and **durability** make the different models in the **300 series** the **best choice** for a wide range of industries.

A classic with a **bright future**

Up to **three mirrors**

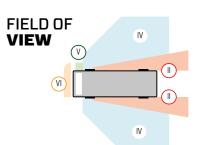
309: Integrated auxiliary mirror

7000





300 SERIES



OPTIONS







ELECTRICAL HEATED IV-V-VI CAT



















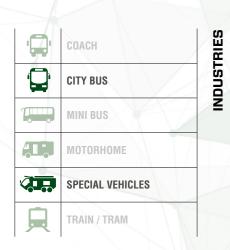
313

308

V / VI Cat.







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

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

Interior & Exterior mirrors

Functionality

54

Multiple combinations

Adaptability to several bodyworks







CAST **ARMS. Exterior Arms**

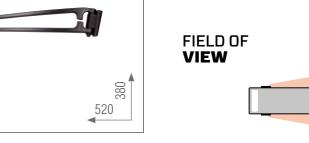






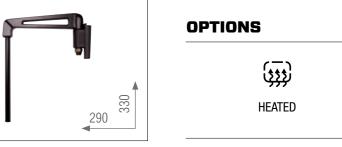














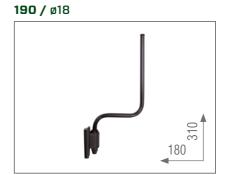


TUBE **ARMS. Exterior Arms**



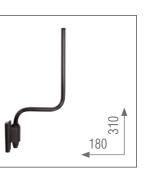












Our first stage to offer the **top quality design**. **Functionality and excellent performance guaranteed** for a long lasting life.

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

Interior & Exterior mirrors

Functionality

58

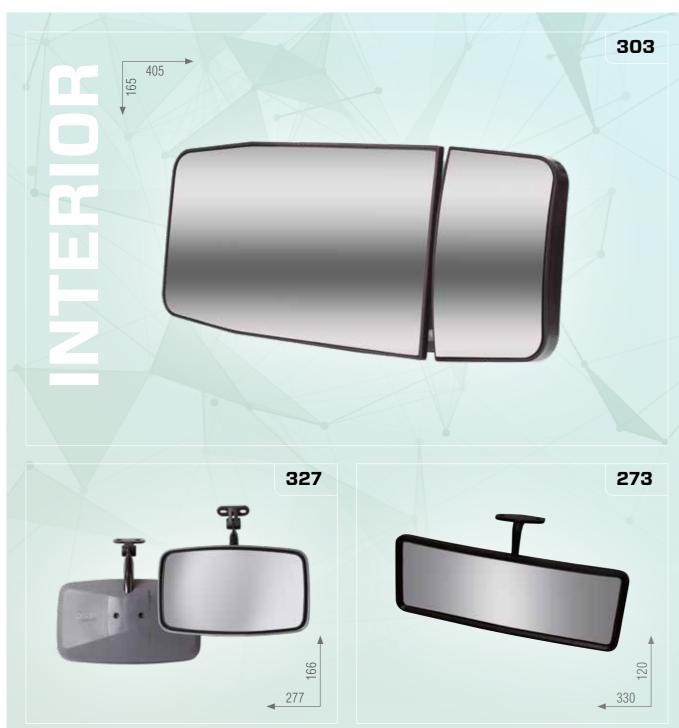
Multiple combinations

Adaptability to several bodyworks









298

ø 324



340-I

96





OPTIONS



HEATED





COACH CITY BUS MINI BUS MOTORHOME SPECIAL VEHICLES TRAIN / TRAM

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

Comfort and
Durability are the key

62

Made to measure

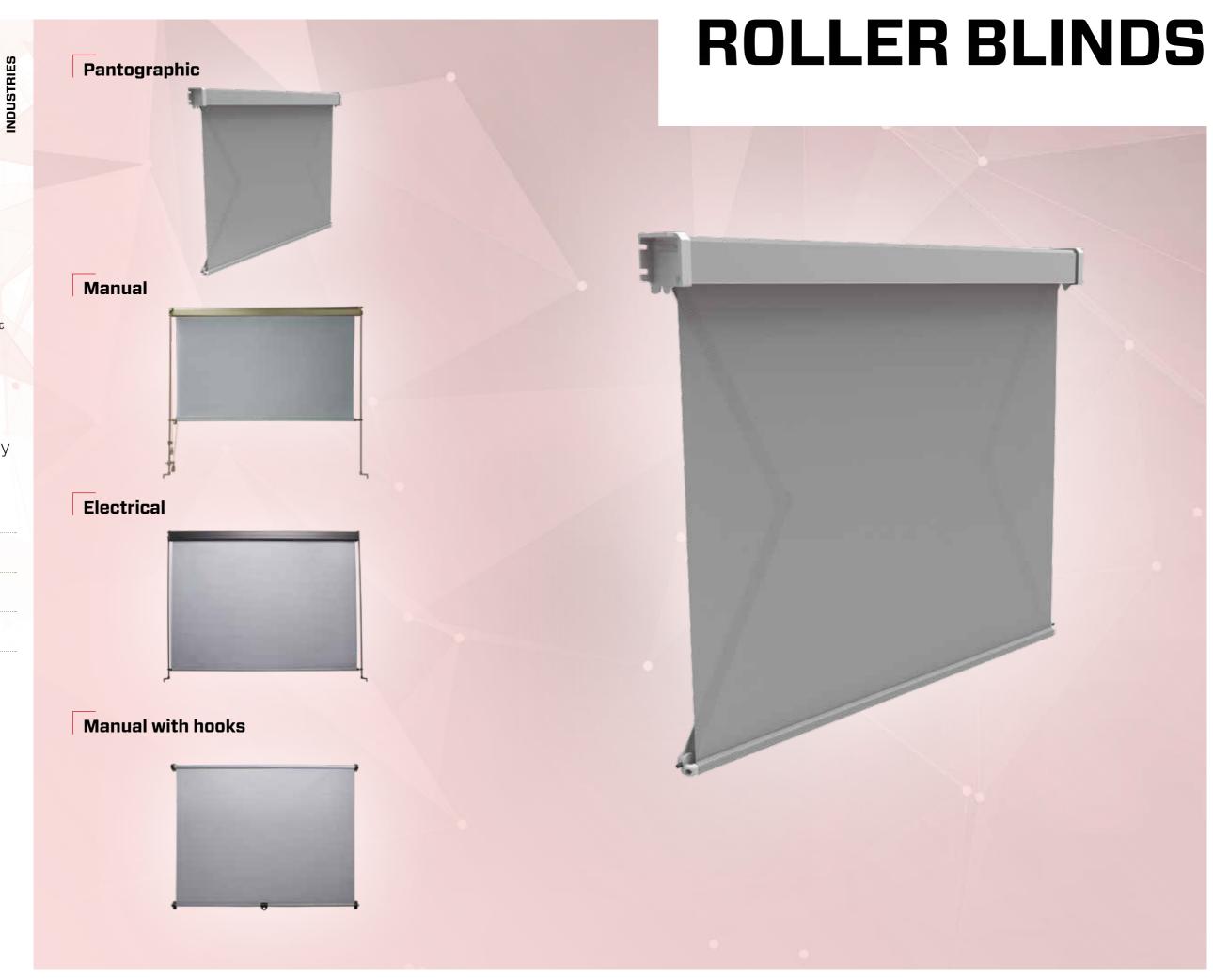
Protection and safety

Adaptability to all surfaces

New improvements

R-118, EN 45545, R-10













ROLLER BLINDS

MAIN FEATURES

SLIP RING

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



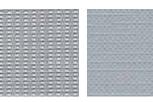
AUTOMATIC STOP SYSTEM

FEATURES

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



TEXTILES



TRANSLUCENT

OPAQUE



TRANSLUCENT WITH OPAQUE STRIP*

COLORS

Standard sunblinds colour is grey.

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

COACH CITY BUS MINI BUS MOTORHOME SPECIAL VEHICLES TRAIN / TRAM

Our priority is to ensure the safety for the children and so we have improved our reflectant School Transport Signs and with LED technology. Different sizes are available meeting the regulations requested from the most of markets.

Child safety

is important to us all

Spanish regulations

Led School signs

Safety

R-118, V10







FEATURES

- ✓ INTERMITTENCE
- **✓** HOMOLOGATED

R-118 and V10

FLASH FUNCTION AND ERROR DETECTION DEVICE

FLASH DEVICE SCH00L LED 12/24V

- » For both 12V and 24V
- » Minimize Led temperature
- » Energy saving
- » Extend School sign lifetime
- » 3 different protection systems:» Against overvoltage

 - » Short-circuit
 - » Inverted polarity protection







FEATURES

✓ HOMOLOGATED R-118 and V10

» 2 suction cups fixing system







SCHOOL SIGNS

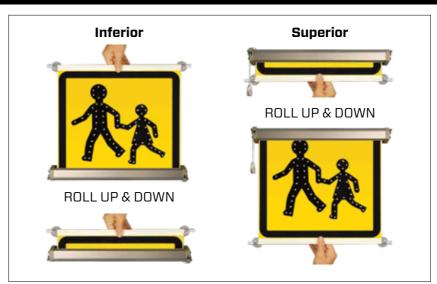
FEATURES

- **✓ PANTOGRAPHIC**
- ✓ HOMOLOGATED R-118 and V10
- » 2 suction cups fixing system for inferior design





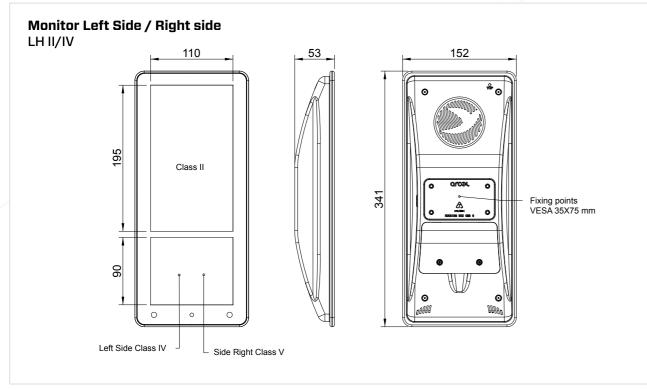
MAIN FEATURES



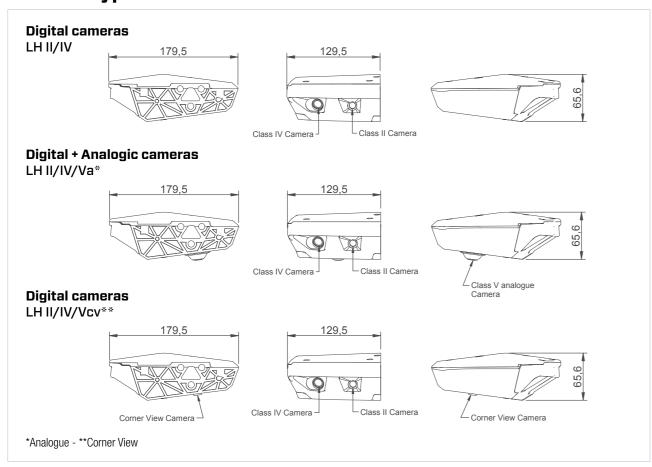
Slip ring. Innovative system of floating rings that allow the curtain to operate without the cables becoming twisted.



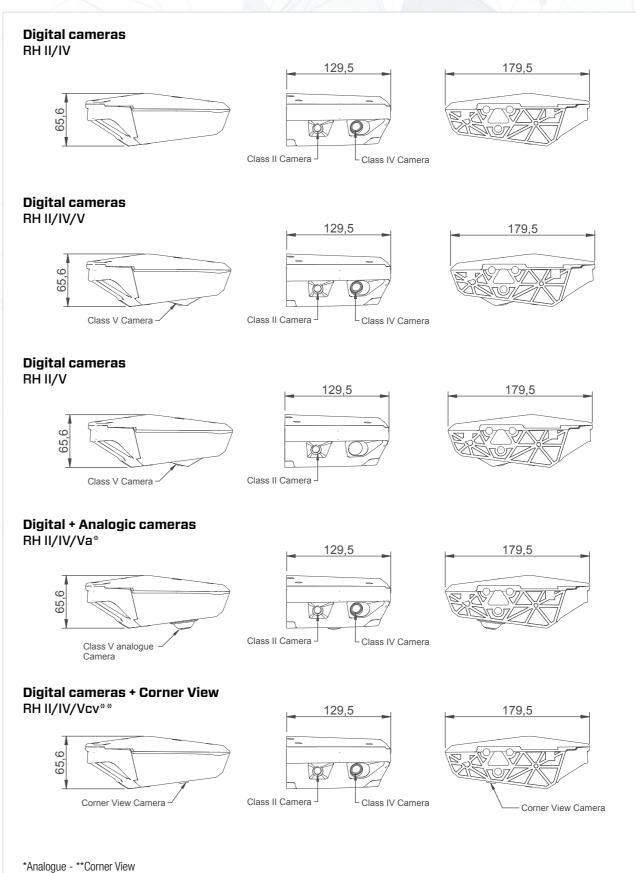
eMirror



eMirror: types of left cameras



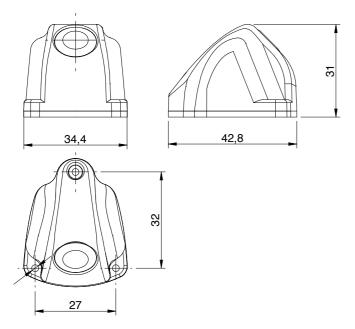
eMirror: types of right cameras



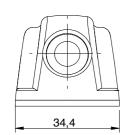
71

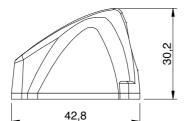
Cameras

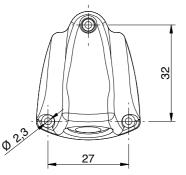
Camera C-45



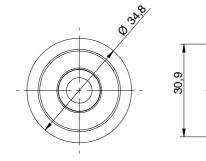
Camera CS

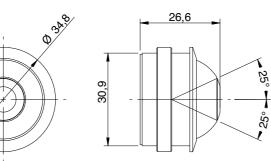






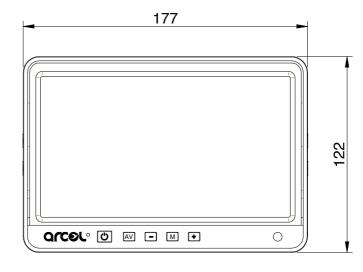
Camera Eyeball

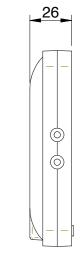




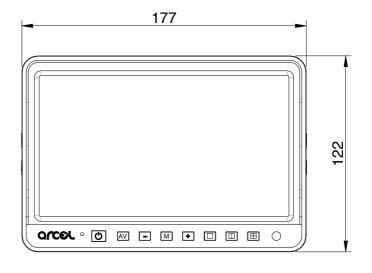
Monitors

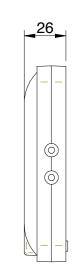
Monitor 7" 2 Cam





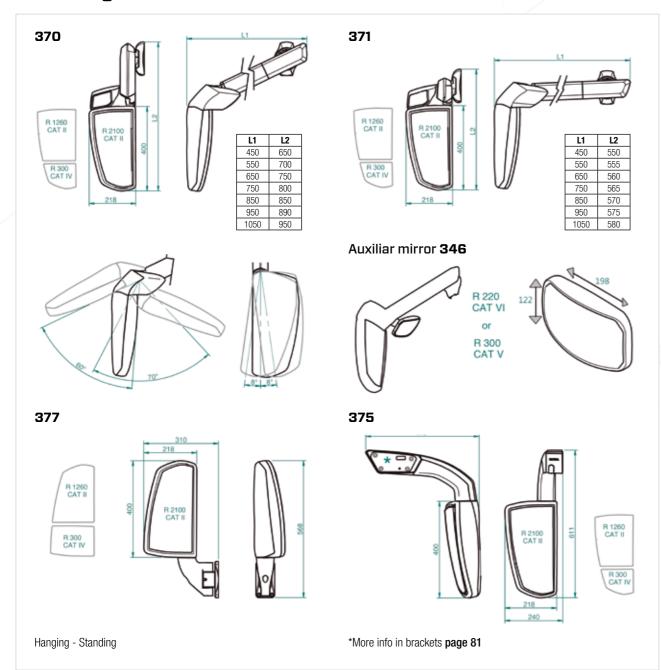
Monitor 7" 4 Cam





75

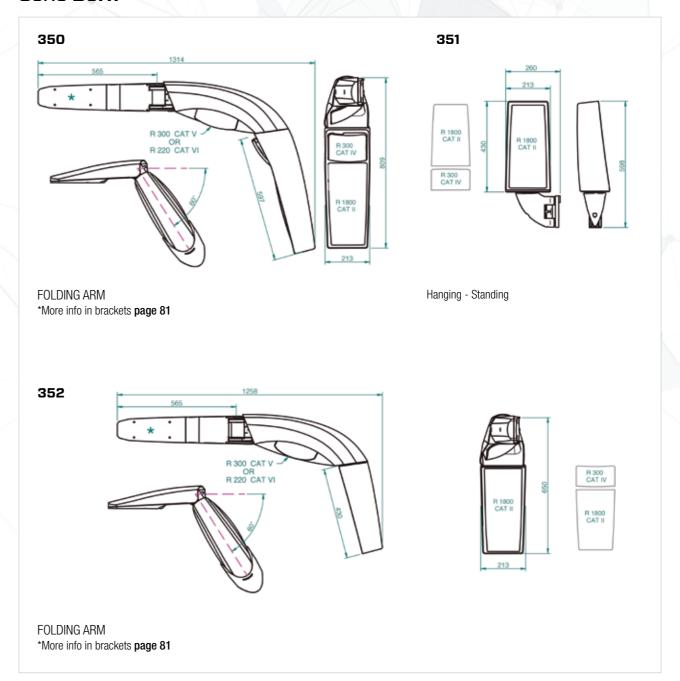
Serie **Diagonal**



		ELECTRICAL	Q.	RA	NG ARM*	ANTENA	TESY LIGHT		DRY MIRROR	FIX	PULL OUT		OAT OF WEW		
SERIE DIAGONAL	/2M	LECT	НЕАТЕD	CAMERA	FOLDING	RADIO	COURTI	BSD	MEMORY	BRAC	KETS		CAT. 0	F VIEW	
DIAGGITAL	_ v	ш						ш				l II	IV	V	VI
370	~	0P	0P	0P	0P	0P	-	OP	0P	-	·	0P	0P	0P	OP
371	'	OP	OP	0P	OP	0P	-	0P	OP	-	~	0P	0P	OP	OP
375	V	0P	0P	0P	-	0P	-	0P	0P	-	~	0P	0P	OP	OP
377	~	0P	OP	OP	-	0P	-	OP	0P	-	~	0P	0P	OP	-
Auxiliar Mirror 346		0P	OP	-	-	-	-	OP	OP	-		0P	-	-	-

* L1 min = 750 mm

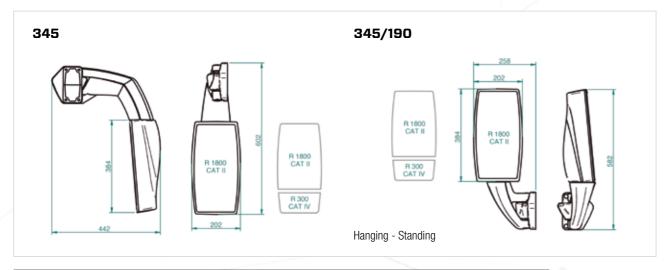
Serie Born



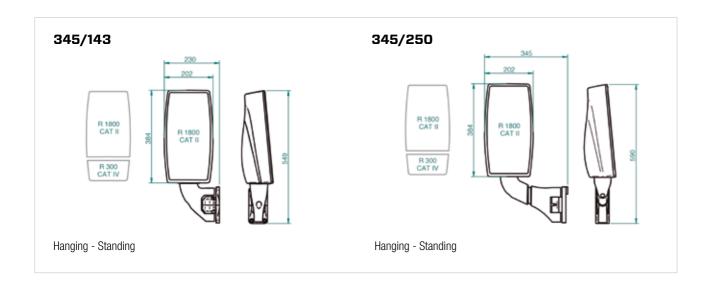
		RICAL	Q	XH	PULL OUT	FOLDING PULL-OUT				
OFFICE POPAL	Z2M.	ECTRIC/	НЕАТЕD		BRACKETS			CAT. 0	F VIEW	
SERIE BORN	V		王		DIMONLIS		l II	IV	V	VI
350	-	0P	0P	~	-	-	~	~	RH	LH
351	V	OP	0P	0P	~	0P	~	OP	-	-
352	-	0P	0P	~	-	-	~	OP	RH	LH

77

Serie **345**

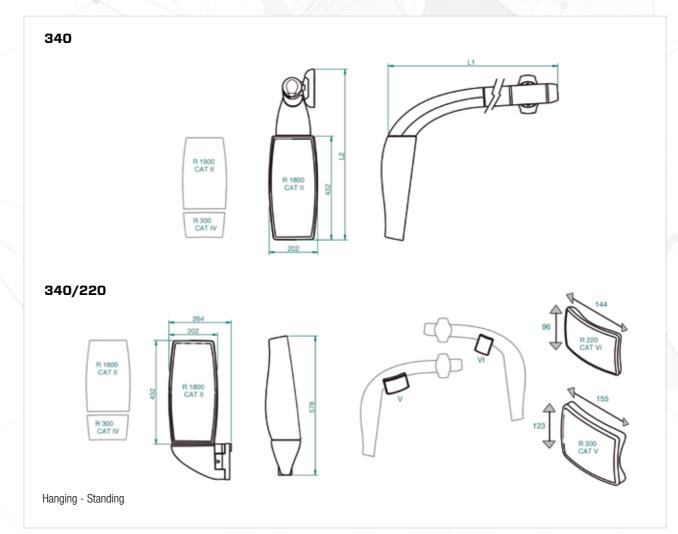


		RICAL	<u>a</u>	RA	ANTENNA	resy light	FIX & FOLDING		
SERIE 345	<2M.	ELECT	HEATE	CAME	RADIO	COURT	BRACKETS	CAT. 0	F VIEW
								11	IV
345	/	OP	OP	OP	OP	OP	V	V	OP
345/190	~	0P	OP	0P	OP	OP	V	V	OP



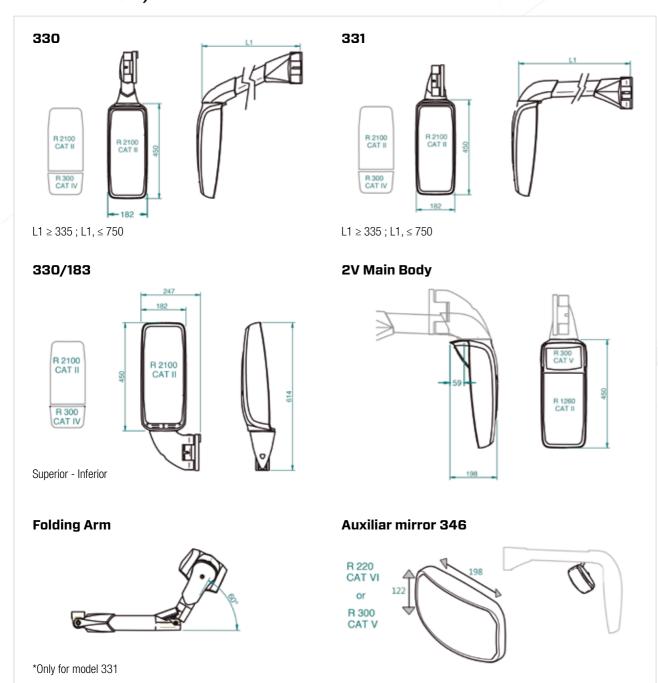
SERIE	-2M.	ECTRICAL	ATED	PULL OUT	FIX & FOLDING	FOLDING ELECT.	XX	FOLDING PULL-OUT	CAT. O	F VIEW
345/143	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		<u></u>			BRACKETS			II	IV
345/143	V	0P	OP	~	0P	0P	OP	0P	~	OP
345/250	V	OP	OP	V	0P	-	OP	0P	V	OP

Serie **340**



	-2M.	ECTRICAL	АТЕD	AMERA	AT GLASS II CAT.	FIX	PULL OUT		Cat. Of View			
SERIE 340	\ \ \ \ \	日	뽀	SA	3	BRAC	KETS	II	IV	V	VI	
340	~	OP	OP	OP	OP	-	~	~	0P	OP	OP	
340/220	V	OP	OP	-	OP	OP	~	~	OP	-	-	

Serie **Amida 1,5**



SERIE	-	ECTRICAL	НЕАТЕD	CAMERA		FOLDING ARM	T GLASS II Cat.	Æ	Pull out	Folding Pull-Out		Cat. Of View		
AMIDA 1,5	<2m.	H	HEA	CA	2	F	FLAT		BRACKETS		II	IV	V	VI
330	· ·	0P	0P	OP	0P	-	0P	0P	~	OP*	~	OP	0P	OP
331	V	0P	0P	OP	0P	0P	0P	0P	~	OP*	~	OP	0P	OP
330/183	V	0P	0P	-	0P	-	0P	0P	~	OP	~	0P	-	-
Auxiliar Mirror 346		-	0P	-	-	-	-	-		-		-	0P	OP

*Arm Max. length 500 mm.

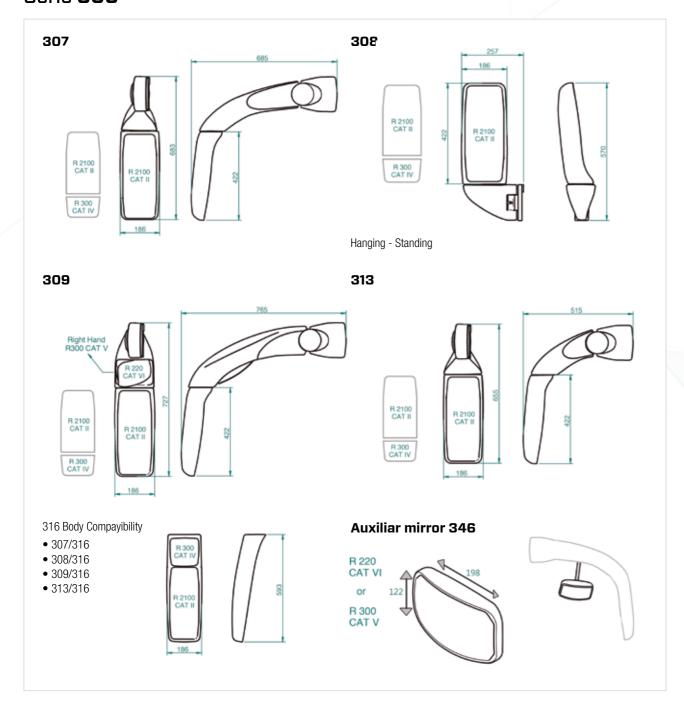
Serie Amida



	<2M.	ELECTRICAL	НЕАТЕD	AT GLASS II CAT.	FIX	FIX & FOLDING	FOLDING ELECT.	PULL OUT	FOLDING PULL-OUT		CAT. 0	F VIEW	
SERIE AMIDA	3	=	뿔				BRACKETS			II	IV	V	VI
314	~	0P	0P	0P	0P	OP*	-	~	OP*	~	0P	0P	0P
324	~	0P	0P	0P	0P	-	-	~	OP*	~	0P	0P	0P
314/143	~	0P	0P	0P	0P	0P	0P	~	0P	~	0P	-	-
Auxiliar Mirror 346		-	0P	-	-	-	-		-		-	0P	0P

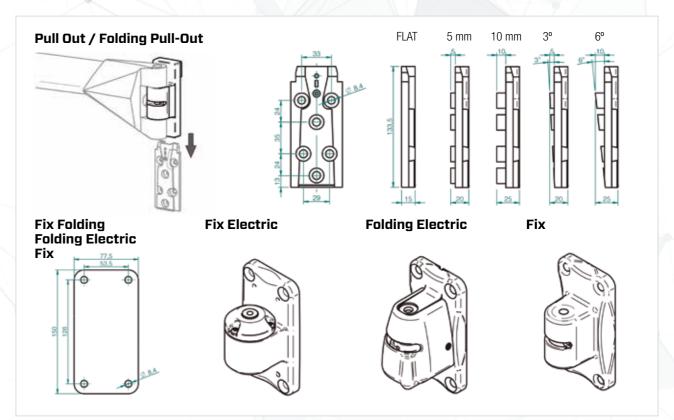
*Arm Max. length 500 mm.

Serie **300**

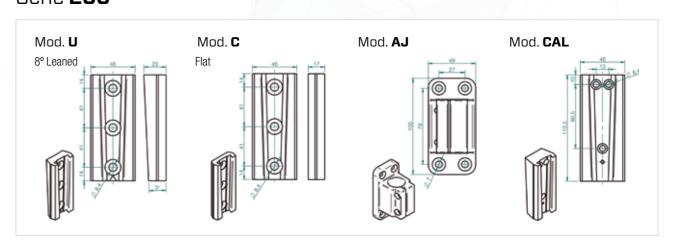


OFFIS OOD	<2M.	ELECTRICAL	НЕАТЕD	at glass II cat.	X	PULL OUT		CAT. OF VIEW		
SERIE 300	\ \footnote{\chi}		当		BRAC	KETS	II	II IV		VI
307	V	OP	OP	OP	OP	~	~	0P	0P	OP
308	V	OP	OP	OP	OP	~	~	OP	-	-
309	V	OP	OP	OP	0P	~	~	OP	RH	LH
313	V	OP	0P	OP	0P	~	~	OP	OP	OP
Auxiliar Mirror 346		-	OP	-	-			-	OP	0P

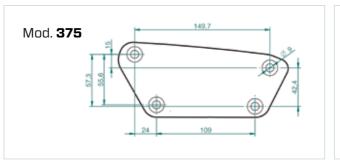
Brackets



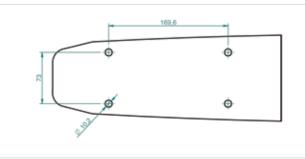
Serie **200**



Serie **Diagonal**

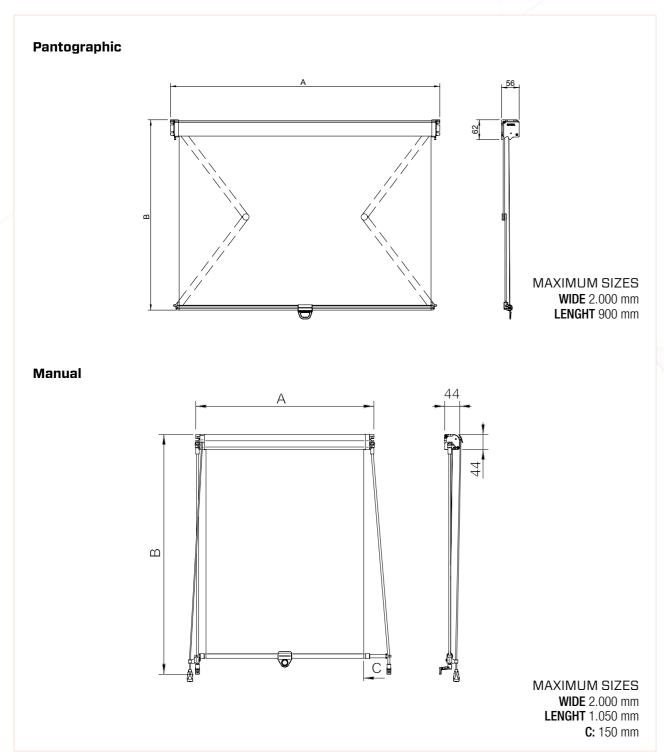


Serie **Born**



82

Roller Blinds

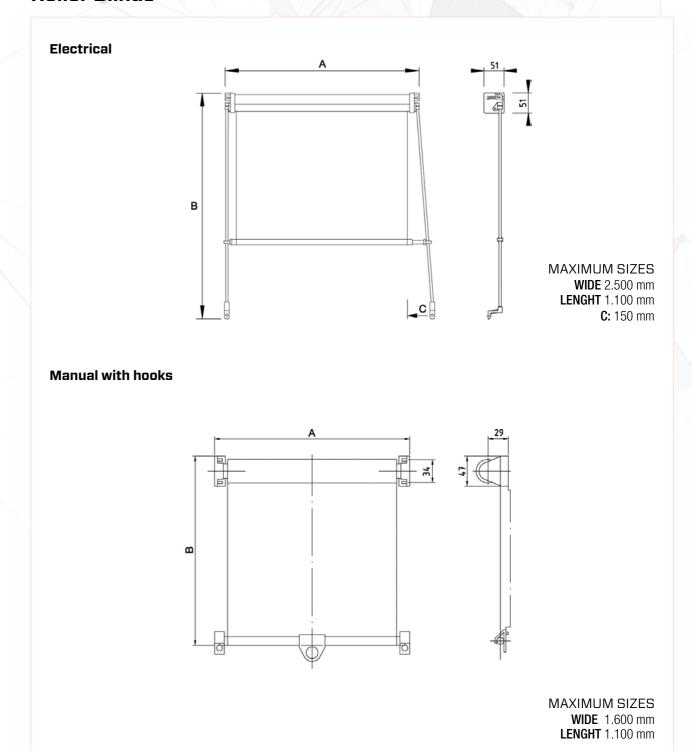


Pantographic

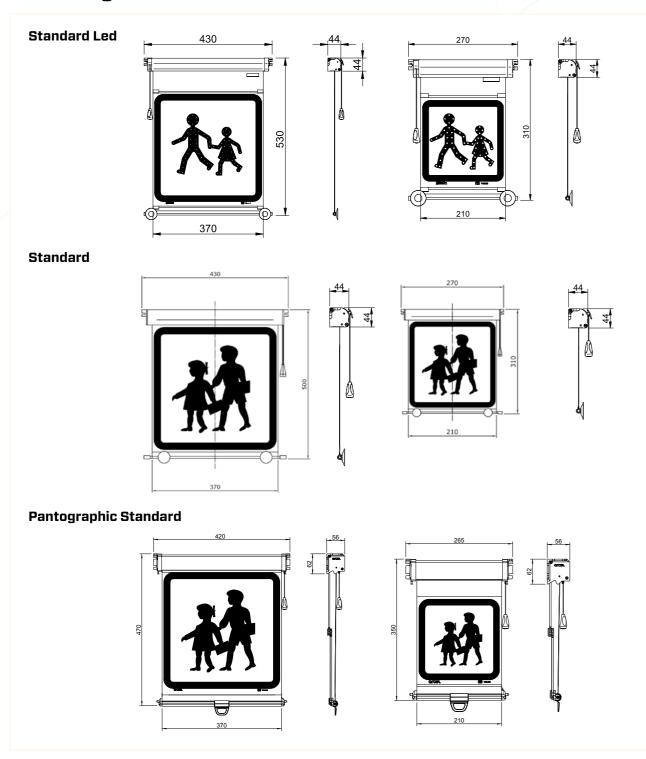
Electrical	A**	450-570	580-670	680-7	680-770		780-870		880-970		0-1070	1080-2000
	B Max. ***	350	450	550		650		750		850		900
Manual	A**	480-570	580-670	680-770	780-870 8		880-9	970	980-1070		1080-1170	1180-2000
	B Max. ***	350	450	550	6	650	750)	850		950	1050

^{**} The dimension A increases in fractions of 10mm ***The dimension B increases in fractions of 50mm

Roller Blinds



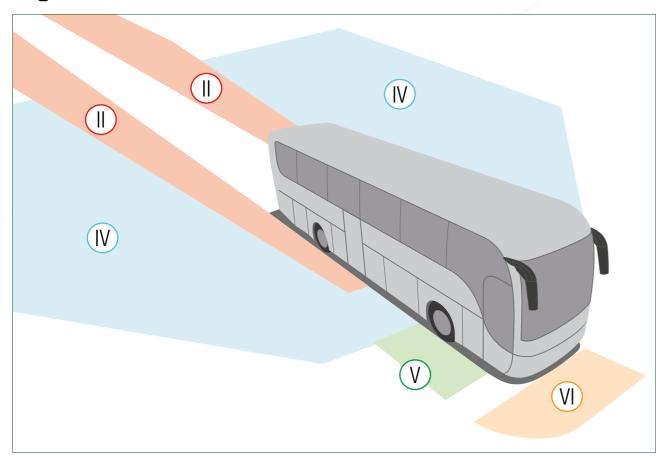
School Signs



85

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	Requiered	Not Permitted	Optional	Optional	Optional		
Driver's Side	-	✓	-	V	✓ 2m	✓ 2m		
Passenger's Side	-	v	-	V	✓ 2m	✓ 2m		
N2	Optional	Requiered	Not Permitted Requiered		Requiered	Optional < 7,5t Requiered > 7,5t		
Driver's Side	-	✓	-	V	Optional 2m	✓ 2m		
Passenger's Side	-	✓	-	V	✓ 2m	✓ 2m		
N2	Optional	Requiered	Not Permitted	Requiered	Requiered	Requiered		
Driver's Side	-	✓	-	V	Optional 2m	✓ 2m		
Passenger's Side	-	✓	-	V	✓ 2m	✓ 2m		

Fitter 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. **N2:** Mass between 3.5 to 12 tonnes. N3: Mass over 12 tonnes.







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The information in this catalogue, valid at the time of publication, may be later modified without notice, due the policy of development and continuous improvement of our products.

