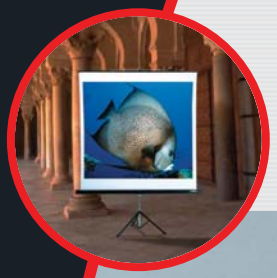
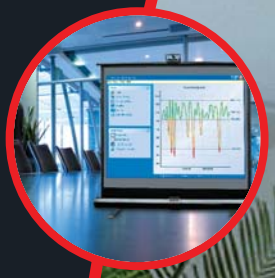
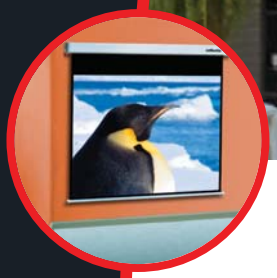
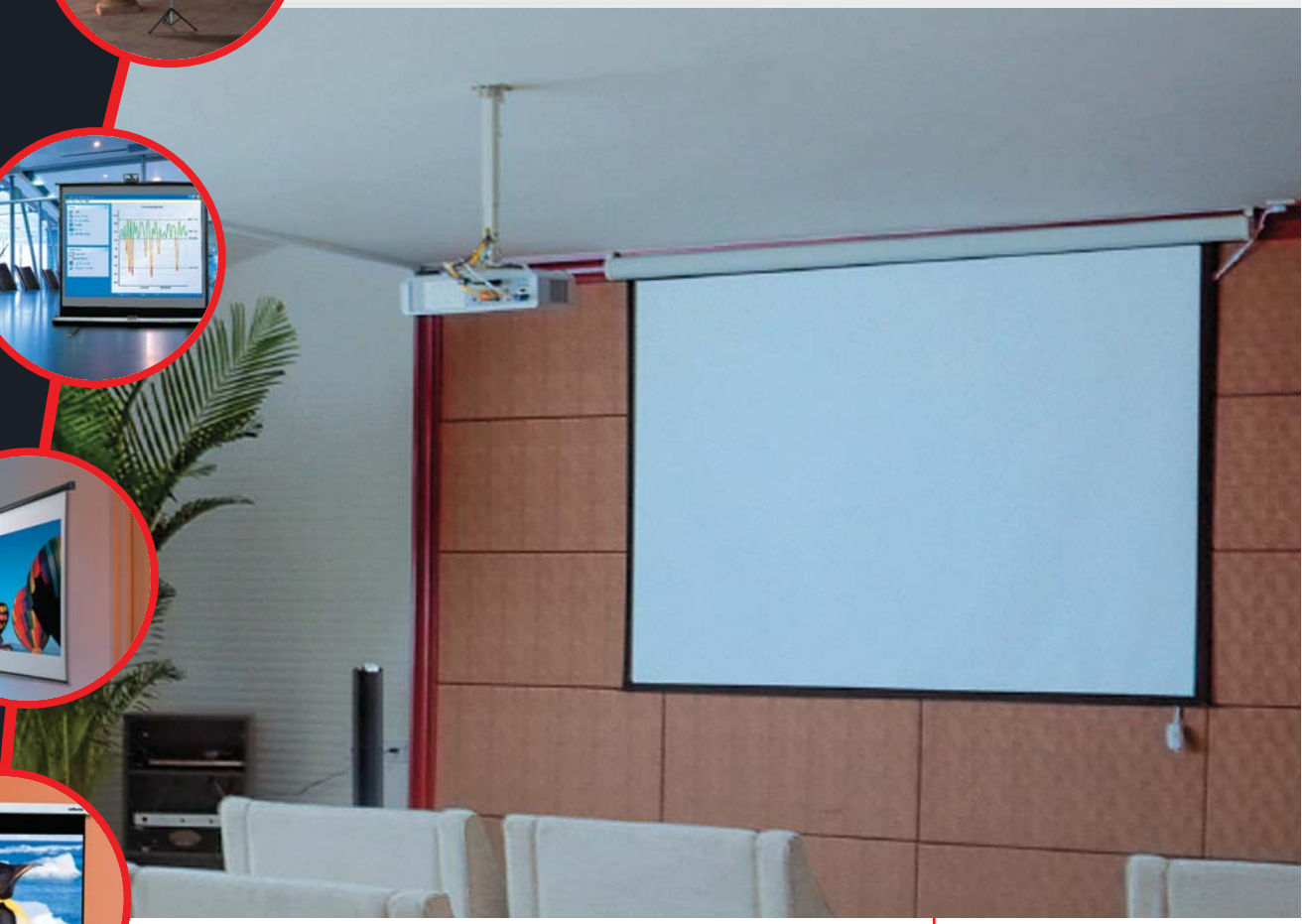
Projection Screens

reflecta®









The right projection screen for your specific purpose

VIEW PROJECT SCAN ARCHIVE


reflecta

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reflecta

Quality and innovation in photography - this has been the hallmark of reflecta for more than 35 years. The history of our company started with the production of projection lamps and photo accessories in 1967 – today, we offer customised solutions for presenting and processing photos for almost any purpose.

To make the best out of your photos, we make the highest demands in quality to ourselves. Time and again, our innovative products have shown that the good can still be made better. We are committed to our tradition. Therefore, we do not twiddle our thumbs, not even in the age of digital photography and image processing. At reflecta, you will find novelties for all aspects of photography. Quality and innovation – to make only the best of your photos.

Chronology

1967 reflecta foto-film-projektion was established in Nuremberg. Product range: projection lamps and photo accessories.

1970 Company moved to Schwabach near Nuremberg.
Production of film and photo lights was started, distribution of flashguns, projection lamps, flash lamps and cubes.

1974 Production of reflecta projection screens was started.

1977 reflecta superstar screen for daylight projection was introduced.
At the time, it was the brightest screen due to a completely new procedure of surface coating.

1980 Another projection screen, the reflecta pearly screen, with a specially finished surface for highest colour luminance and authentic colours was introduced.

1982 The reflecta system 4000 for tripod projections screens was introduced.

1999 Projection screen product range was expanded to home theatre applications.

2006 Projection screen product range was expanded significantly.

2007 New screen series CrystalLine was introduced which involved an expansion of warehouse grounds to over 4,000 sq..

2010/ 2012 reflecta participated in Europe's most important exhibition for screens and AV technology, the ISE (Integrated System Europe) in Amsterdam.

reflecta worldwide

Europe
Belgium
Cyprus
Denmark
Great Britain
Finland
France
Greece
Netherlands
Ireland
Island
Italy
Luxembourg
Austria
Poland
Portugal
Romania
Sweden
Switzerland
Slovenia
Slovakia
Spain
Czech Republic
Hungary

North America
Canada
U.S.A.

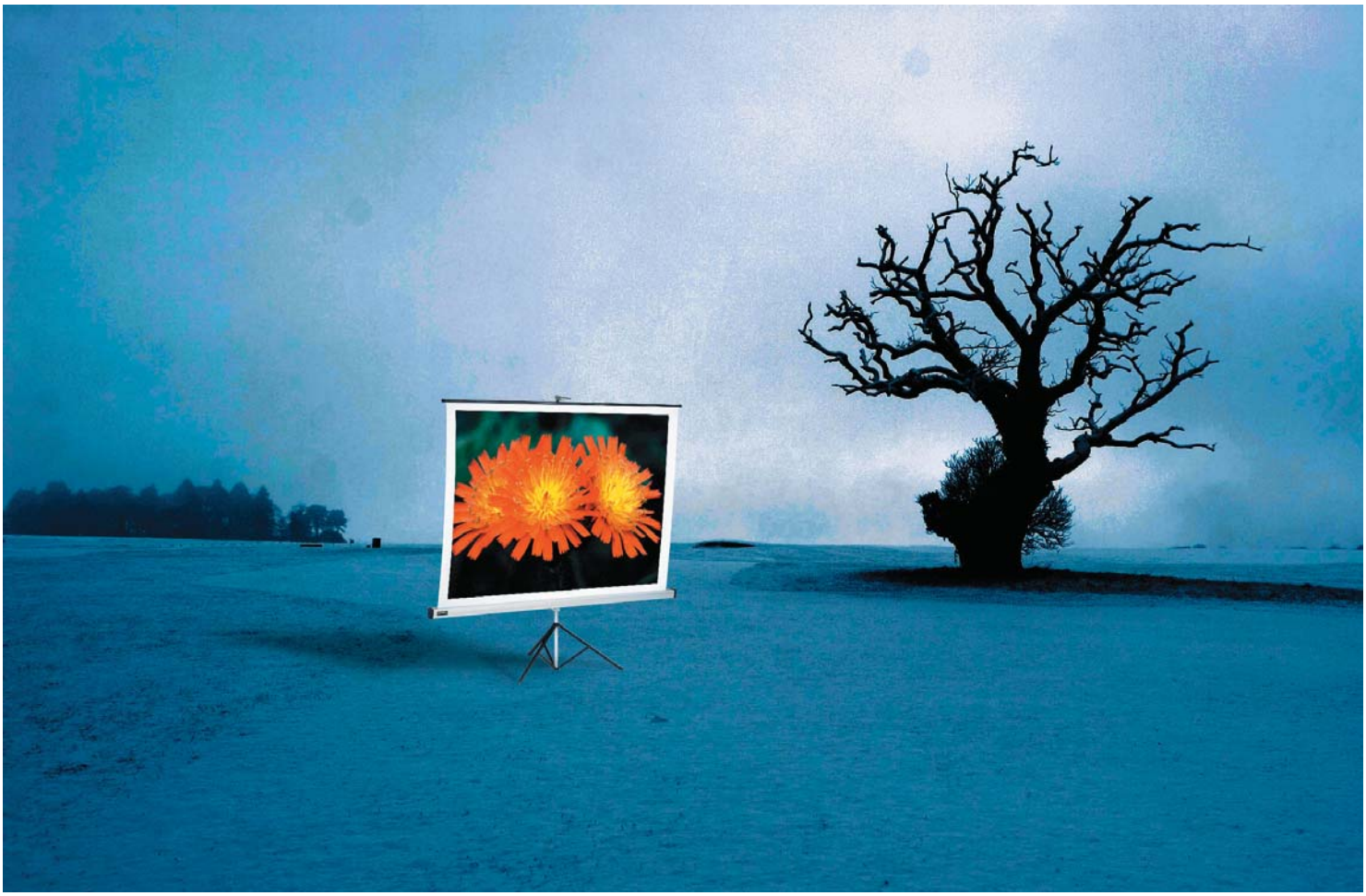
South America
Argentina
Venezuela

Middle East
Iran
Israel
Yemen
Kuwait
Oman
Palestine
Saudi Arabia
Syria

Asia
Bangladesh
Hong Kong
India
Indonesia
Japan
Korea
Malaysia
New Zealand
Pakistan
Russia
Singapore
Sri Lanka
Taiwan
Thailand
Vietnam

Africa
Morocco
South Africa
Tunisia

Purchasing references at mail@reflecta.de



Basics about the fabrics

If you want to present pictures or information to an audience, be it in the private or business sector, a perfect presentation is indispensable.

However, this can be achieved only if projection device and screen match each other. A slide projector, e.g., needs a different screen than a beamer. Before purchasing a screen, you should therefore think carefully about the intended purpose.

In the private sector, different factors are decisive than when used in the business world. When used at home, the pure pleasure of watching the presentation is in the foreground; when the screen is not required, it should be hidden unobtrusively. In the business area, a stable design to withstand daily use and versatile applications is required.

Basics about brightness

In order to view a projected picture, the picture must have a certain brightness. This brightness, of course, depends on the light in the room, and the picture must be brighter than the surrounding light. It is also clear that in bright rooms, the pictures must be proportionately brighter than in dark rooms.

A decisive parameter of all projectors is their light intensity. For multimedia projectors, this intensity is measured in lumen, where the standard of the American National Standard Institute (ANSI) is applied frequently.

The larger the projection surface, the lower the amount of light per surface unit since projectors – irrespective of the size of a picture – always produce the same amount of light.

part from light intensity, the contrast value is an essential factor which influences the quality of the projected image. The contrast value indicates the ability of a projector to reflect a scale of shades as wide as possible in their colour intensity from the darkest to the brightest shade as in real life. A high contrast will produce a natural, vivid image.

Hence, luminous efficacy and contrast value must match the brightness of the ambient light and the characteristics of the projection screen to produce a perfect image.

The ratio between the brightness of the projector and that of the projected image should be 5:1 as a minimum to achieve the best image quality.

A. Trapezoid distortion

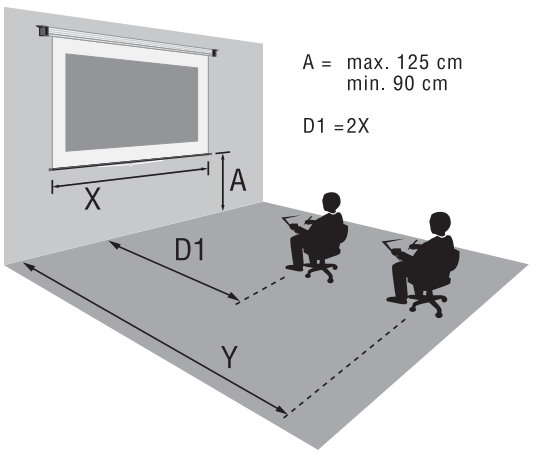
Front projections typically produce a trapezoid distortion (keystoning). The projected picture is larger at the top of the screen than at the bottom. This distortion is caused by an inclined projection onto a straight hanging screen. Special keystone eliminators allow for an inclined positioning of the screen to provide for an appropriate means to avoid the trapezoid distortion when using OHP. With the modern data and video projectors, the trapezoid effect can also be avoided or reduced with the keystone eliminators.

B. Gain factor

The gain factor describes the luminance of a fabric or a projection screen. The higher the gain, the stronger the reflection of the screen fabric. With an increasing gain factor, the viewing angle of the screen decreases.

C. Angle of view

The angle of view describes the angle in degree where the picture on the screen is still adequately visible. It is measured with reference to the normal of the screen center. The double angle of view (= viewing angle) thus describes the area within which an audience should be seated.



D. Selecting the right screen

Selecting the right screen depends on four variables:

1. Type of screen

- Rear or front projection (the latter is the most common method).
- Mounted firmly or portable.
- Operated electrically or manually.

2. Screen size

- Depends on projection room and seating arrangement.
- Ideally, the following criteria are considered:
  - The screen width (X) should amount to at least half the distance between screen and first row of seating (D1) (example: With a distance of 4 metres between the first row and screen, the minimum screen width is 2 metres).
  - The distance between screen and last row of seating (Y) should not be larger than 6 times the screen width (X) (example: With a screen width of 2 metres, the last row should be at 12 metres as a maximum).
  - The distance between floor and bottom edge of screen (A) is 90 cm, preferably 125 cm for row seating.

3. Screen format

It is determined by the projection method. The format (also referred to as aspect ratio) is defined by the ratio of height to width of the screen. Depending on the projection type, the following formats are distinguished:

- 1:1 for overhead projection (also referred to as square)
- 4:3 for video projection (also referred to as NTSC or video)
- 3:2 for slide projection
- 16:9 for widescreen projection

4. Type of fabric

The type of fabric is determined by the following factors:

- The projection method (front projection or rear projection).
- The projector. Each projector has a specific luminous efficacy (measured in ANSI lumen). If several projection devices are used (e.g. beamer and OHP), it is recommended to match the luminance (gain factor) of the fabric to the lowest ANSI lumen value.
- The size of the projection room. The size and the layout determine the seating of the audience. The wider the seats are apart, the larger the recommended viewing angle of the screen.
- The ambient light.

The lighting conditions of the projection environment affect the presentation quality. When the lighting can be controlled, e.g. by darkening or a high luminance of the projector, the "SuperLux" fabric can be used.

The rule of thumb is: keep the ambient light away from the screen; the brighter the ambient light, the higher the luminance of the projector and/or reflection of the fabric should be.

Rear projection is substantially more insensitive to ambient light!

E. Care of screens

Frequent use of a screen requires an appropriate care. All screens can be cleaned with a carefully applied weak soapsuds. When not in use, the screens should be retracted to their casing to protect them against depositing dust.

Avoid to touch the screen fabric with bare hands since, in the course of time, dust will stick better to the (greasy) imprints than on clean spots.

The fabric types

A projection screen does not only refract the projected light, but also distributes it with a single goal: send as much light as possible into the direction of the audience.

There are two types of projection screens:

- Diffuse
- Reflective

Gain

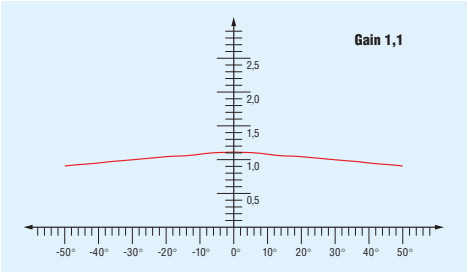
The reflection properties of a screen are defined by the gain or luminance factor. This factor informs you of the luminance of the respective projection screen in comparison to a surface that is standard white-coated. The factor expresses how many times lighter the picture is seen by the viewer. The larger the gain factor of a screen, the smaller the viewing angle. Typically, the specified gain factor indicates the maximum reflection of a screen along the projection axis. Special coatings of the projection screens are used to obtain different reflection characteristics. Their effect is to manipulate the light reflection, i.e. either distributed evenly in all directions or concentrated to a small viewing angle.

AlphaLux

Characteristics:

- Gain 1.1
- Viewing angle 120°
- Weight/m² 360 g
- Screen thickness 0.28 mm

Used for:
Tripod Alpha, Cinemobil and spring roller

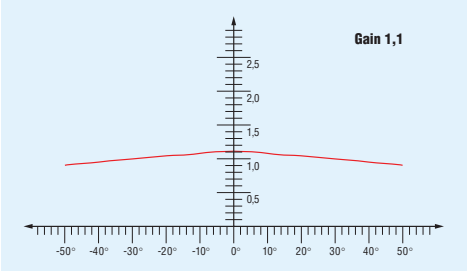


TwinLux

Characteristics:

- Gain 1.1
- Viewing angle 120°
- Weight/m² 360 g
- Screen thickness 0.28 mm

Used for:
Tripod Alpha TwinLux

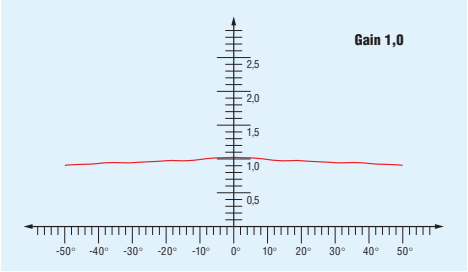


GammaLux

Characteristics:

- Gain 1.0
- Viewing angle 160°
- Weight/m² 380 g
- Screen thickness 0.28 mm

Used for: Ultra-portable table screen and portable floor screen

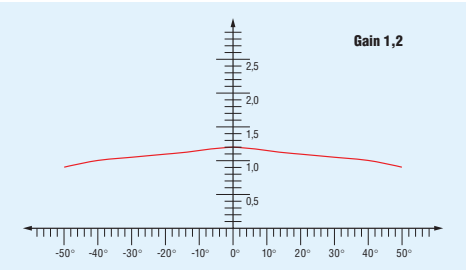


UltraLux

Characteristics:

- Gain 1.2
- Viewing angle 120°
- Weight/m² 570 g
- Screen thickness 0.40 mm
- Fire protection class M1

Used for: Landscape formats, tripod, self-locking roller Silverline or electric Silverline, Superior

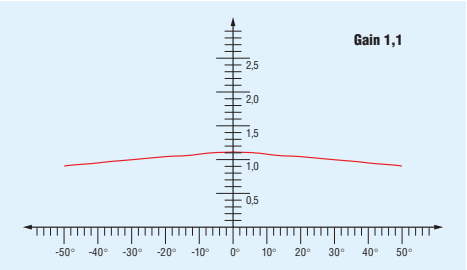


ValueLux

Characteristics:

- Gain 1.2
- Viewing angle 150°
- Weight/m² 601 g
- Screen thickness 0.40 mm

Used for:
Cosmos series

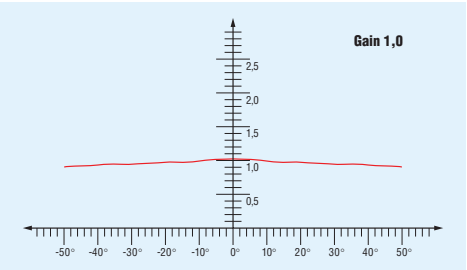


DeltaLux

Characteristics:

- Gain 1.0
- Viewing angle 160°
- Weight/m² 440 g
- Screen thickness 0.40 mm

Used for:
Galaxy series Self-locking roller

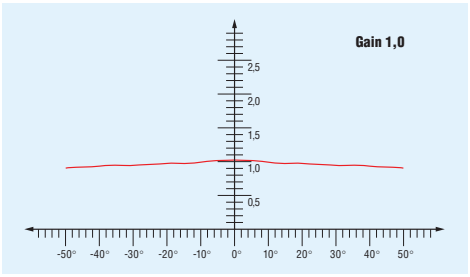


UltraLux for mobile front projection

Characteristics:

- Gain 1.0
- Viewing angle 100°
- Weight/m² 295 g
- Screen thickness 0.22 mm

Used for:
QuickSet

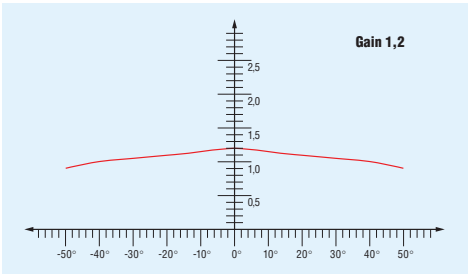


UltraLux for mobile rear projection

Characteristics:

- Gain 1.2
- Viewing angle 100°
- Weight/m² 370 g
- Screen thickness 0.28 mm

Used for:
Quickset

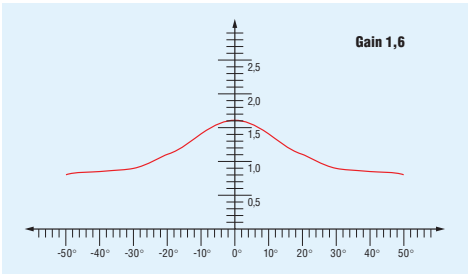


RearPro

Characteristics:

- Gain 1.6
- Viewing angle 120°
- Weight/m² 420 g
- Screen thickness 0.32 mm
- Fire protection class M1

Used for:
Self-locking Silverline rear projection

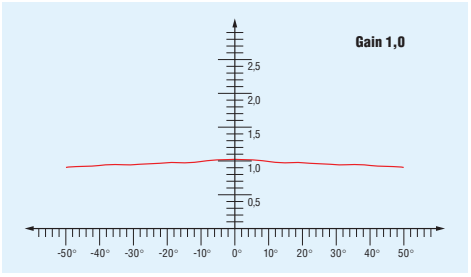


BetaLux

Characteristics:

- Gain 1.0
- Viewing angle 120°
- Weight/m² 300 g
- Screen thickness 0,35 mm

Used for:
CrystalLine Tripod, self-locking roller, electric

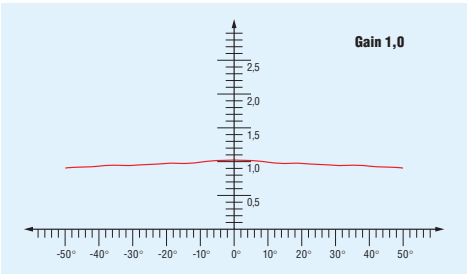


SigmaLux

Characteristics:

- Gain 1.0
- Viewing angle 160°
- Weight/m² 370 g
- Screen thickness 0.35 mm

Used for:
CineHome

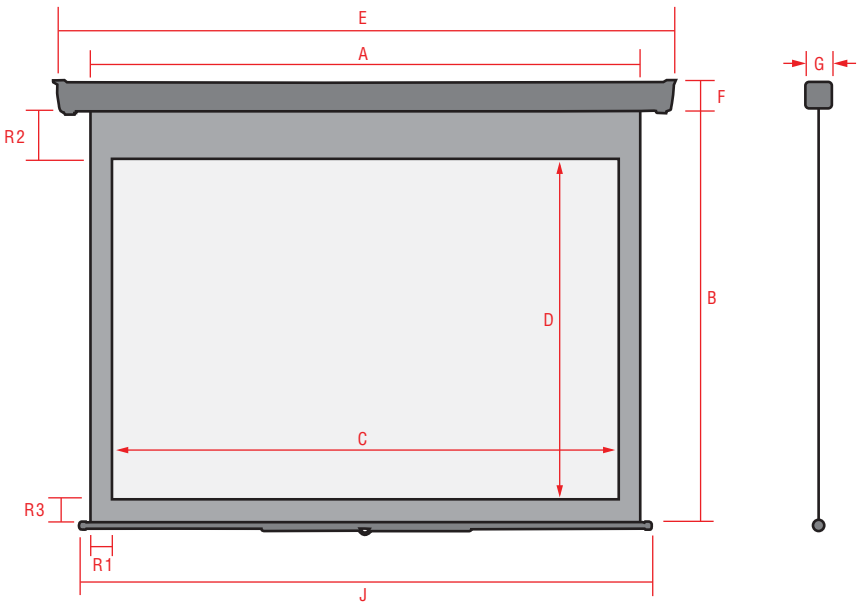


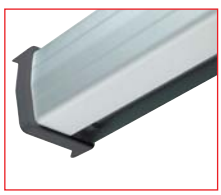
Silverline self-locking roller / Electric

The reflecta large projection screen to be fixed permanently to a wall or ceiling is mounted to an aluminum profile case and is operated either manually or motor-driven. The projection screen is extended and retracted with a space-saving and silent tube motor with integrated end position switch. With the switch, the screen can be stopped at any desired position. Optionally, the screen can be equipped with a locking mechanism to stop the screen at intermediate heights to adjust to different projection formats. Ideal for the training and communications sector.

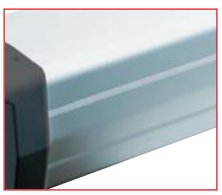
Product details:

- Mounted to wall or ceiling.
- Electric or manual operation.
- Simple installation and easy handling.
- 8.5 cm x 8.5 cm large tube allows for space-saving installation.
- Large viewing angle.
- Suitable for all common front projection types.
- High-quality screens available in UltraLux (1.2 gain) or RearPro (1.6 gain) quality.




Solid aluminum tube


Plastic end caps for wall or ceiling installation


Warp-resistant profile


Switch of the electric Silverline

Silverline self-locking roller – Technical data (all dimensions in cm)

Art.No.	Type	Fabric	Format	A	B	C	D	R1	R2	R3	E	F	G	J	Weight
80900	SilverLine self-locking roller	UltraLux	1:1	155	160	155	160				173	8,5	8,5	162	5 kg
80910	SilverLine self-locking roller	UltraLux	1:1	180	190	180	190				198	8,5	8,5	187	6 kg
80920	SilverLine self-locking roller	UltraLux	1:1	200	210	200	210				218	8,5	8,5	207	7 kg
80930	SilverLine self-locking roller	UltraLux	4:3	220	180	220	180				238	8,5	8,5	227	8 kg
80940	SilverLine self-locking roller	UltraLux	4:3	240	180	240	180				258	8,5	8,5	247	9 kg
80904	SilverLine self-locking roller	UltraLux	4:3	155	149	145	109	5	35	5	173	8,5	8,5	162	5 kg
80914	SilverLine self-locking roller	UltraLux	4:3	180	168	170	128	5	35	5	198	8,5	8,5	187	6 kg
80924	SilverLine self-locking roller	UltraLux	4:3	200	183	190	143	5	35	5	218	8,5	8,5	207	7 kg
80934	SilverLine self-locking roller	UltraLux	4:3	220	193	210	158	5	35	5	238	8,5	8,5	227	8 kg
80944	SilverLine self-locking roller	UltraLux	4:3	240	213	230	173	5	35	5	258	8,5	8,5	247	9 kg
80954	SilverLine self-locking roller	UltraLux	4:3	280	233	270	203	5	25	5	298	8,5	8,5	287	12 kg
80905	SilverLine self-locking roller	UltraLux	16:9	155	132	145	82	5	45	5	173	8,5	8,5	162	5 kg
80915	SilverLine self-locking roller	UltraLux	16:9	180	146	170	96	5	45	5	198	8,5	8,5	187	6 kg
80925	SilverLine self-locking roller	UltraLux	16:9	200	157	190	107	5	45	5	218	8,5	8,5	207	7 kg
80935	SilverLine self-locking roller	UltraLux	16:9	220	168	210	118	5	45	5	238	8,5	8,5	227	8 kg
80945	SilverLine self-locking roller	UltraLux	16:9	240	179	230	129	5	45	5	258	8,5	8,5	247	9 kg
80955	SilverLine self-locking roller	UltraLux	16:9	280	197	270	152	5	40	5	298	8,5	8,5	287	12 kg
80916	SilverLine self-locking roller Rear Pro	Rear Pro		180	190	180	190				198	8,5	8,5	187	6 kg
80926	SilverLine self-locking roller Rear Pro	Rear Pro		200	210	200	210				218	8,5	8,5	207	7 kg
80936	SilverLine self-locking roller Rear Pro	Rear Pro		220	200	220	200				238	8,5	8,5	227	8 kg
80946	SilverLine self-locking roller Rear Pro	Rear Pro		240	200	240	200				258	8,5	8,5	247	9 kg

Silverline Electric – Technical data (all dimensions in cm)

Art.No.	Type	Fabric	Format	A	B	C	D	R1	R2	R3	E	F	G	J	Weight
81801	SilverLine Electric professional	Ultralux		180	200	180	200				199	8,5	8,5	187	10 kg
81811	SilverLine Electric professional	Ultralux		200	210	200	210				219	8,5	8,5	207	11 kg
81821	SilverLine Electric professional	Ultralux		220	220	220	220				239	8,5	8,5	227	12 kg
81831	SilverLine Electric professional	Ultralux		240	200	240	200				259	8,5	8,5	247	13 kg
81841	SilverLine Electric professional	Ultralux		300	200	300	200				319	11	10	307	18 kg
81851	SilverLine Electric professional	Ultralux		300	225	300	225				319	11	10	307	20 kg
81861	SilverLine Electric professional	Ultralux		300	250	300	250				319	11	10	307	21 kg
81871	SilverLine Electric professional	Ultralux		300	300	300	300				319	11	10	307	21 kg
81881	SilverLine Electric professional	Ultralux		350	265	350	265				369	11	10	357	22 kg
81891	SilverLine Electric professional	Ultralux		350	300	350	300				369	11	10	357	22 kg
81892	SilverLine Electric professional	Ultralux		350	350	350	350				367	15	14,5	358	37 kg
81893	SilverLine Electric professional	Ultralux		400	350	400	350				423	18	18,5	408	45 kg
81894	SilverLine Electric professional	Ultralux		400	400	400	400				423	18	18,5	408	47 kg
81895	SilverLine Electric professional	Ultralux		500	400	500	400				523	18	18,5	508	58 kg
81896	SilverLine Electric professional	Ultralux		500	500	500	500				523	18	18,5	508	60 kg
81897	SilverLine Electric professional	Ultralux		600	400	600	400				623	18	18,5	608	65 kg
81804	SilverLine Electric professional	Ultralux	4:3	170	160	160	120	5	35	5	189	8,5	8,5	177	9 kg
81814	SilverLine Electric professional	Ultralux	4:3	180	168	170	128	5	35	5	199	8,5	8,5	187	10 kg
81824	SilverLine Electric professional	Ultralux	4:3	200	183	190	143	5	35	5	219	8,5	8,5	207	11 kg
81834	SilverLine Electric professional	Ultralux	4:3	220	198	210	158	5	35	5	239	8,5	8,5	227	12 kg
81844	SilverLine Electric professional	Ultralux	4:3	240	213	230	173	5	35	5	259	8,5	8,5	247	14 kg
81874	SilverLine Electric professional	Ultralux	4:3	280	233	270	203	5	35	5	299	8,5	8,5	287	17 kg
81854	SilverLine Electric professional	Ultralux	4:3	300	258	290	218	5	35	5	319	11	10	307	21 kg
81864	SilverLine Electric professional	Ultralux	4:3	350	295	340	255	5	35	5	369	11	10	357	22 kg
81900	SilverLine Electric professional	Ultralux	4:3	400	335	390	295	5	35	5	417	15	14,5	408	42 kg
81901	SilverLine Electric professional	Ultralux	4:3	500	410	490	370	5	35	5	523	18	18,5	508	57 kg
81902	SilverLine Electric professional	Ultralux	4:3	600	485	590	445	5	35	5	623	18	18,5	608	70 kg
81805	SilverLine Electric professional	Ultralux	16:9	170	140	160	90	5	45	5	189	8,5	8,5	177	9 kg
81815	SilverLine Electric professional	Ultralux	16:9	180	146	170	96	5	45	5	199	8,5	8,5	187	10 kg
81825	SilverLine Electric professional	Ultralux	16:9	200	157	190	107	5	45	5	219	8,5	8,5	207	11 kg
81835	SilverLine Electric professional	Ultralux	16:9	220	168	210	118	5	45	5	239	8,5	8,5	227	12 kg
81845	SilverLine Electric professional	Ultralux	16:9	240	180	230	130	5	45	5	259	8,5	8,5	247	14 kg
81875	SilverLine Electric professional	Ultralux	16:9	280	197	270	152	5	45	5	299	8,5	8,5	287	17 kg
81855	SilverLine Electric professional	Ultralux	16:9	300	213	290	163	5	45	5	319	11	10	307	22 kg
81865	SilverLine Electric professional	Ultralux	16:9	350	241	340	191	5	45	5	369	11	10	357	22 kg
81906	SilverLine Electric professional	Ultralux	16:9	400	270	390	220	5	45	5	417	15	14,5	408	42 kg
81907	SilverLine Electric professional	Ultralux	16:9	500	325	490	275	5	45	5	523	18	18,5	508	57 kg
81908	SilverLine Electric professional	Ultralux	16:9	600	385	590	335	5	45	5	623	18	18,5	608	63 kg

Other sizes and formats on request (also with rear pojection fabric).