Glass Photomask

SUBSTRATE & COATING

Substrate Material	Sodalime, Quartz (fused silica)- Other substrate on request
Standard coating	Low reflective chrome @435 nm
Optionnal coating	High reflective chrome. Low reflective chrome at specific wavelenght

PATTERN & RESOLUTION

Minimum Feature / Line Width	Down to 0.6 µm

DIMENSIONS

Dimensions	3×3 inches to 28x32 inches
Customized size	Custom size available on request

USE CASES

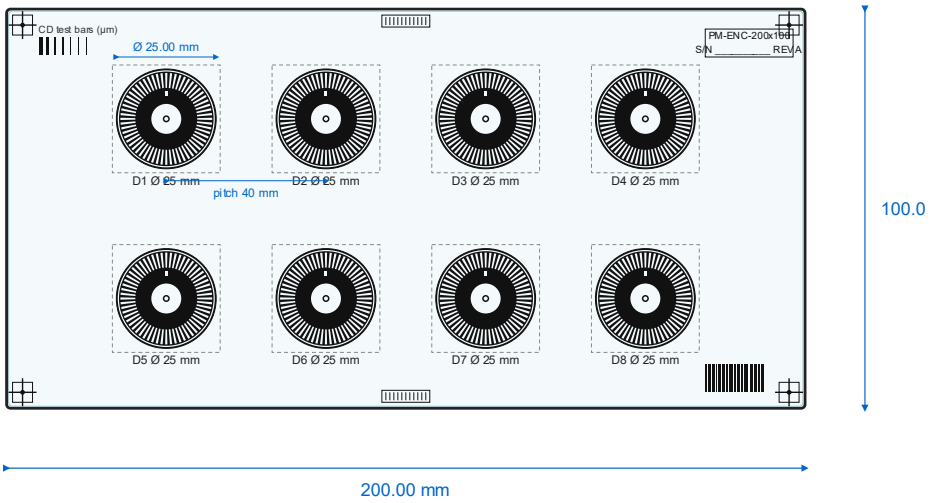
Quartz substrates support deep-UV exposure and are commonly used in the following applications:

1. Micro-optics
2. Semiconductors
3. MEMS

PHOTOMASK — ENCODER DISK ARRAY / 200 × 100 mm

Quartz glass substrate, chrome pattern — 8 × Ø 25 mm rotary encoder disks

Part No. PM-ENC-200x100 / Polarity: clear-field (chrome features = opaque)



HOW TO ORDER

Glass photomasks are manufactured to order. Please provide the following information when requesting a quotation:

1	Mask dimensions
2	Minimum features size
3	Input data: GDS,CIF,DXF, Gerber 274X
4	Substrate material
5	Required quantity and delivery timeframe

Request a Quote

Contact us for custom glass photomask solutions tailored to your application and specifications.

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** All values are nominal. Selba reserves the right to update specifications without prior notice. Custom tolerances and special requirements available on request.*

Optical Encoder Disc - Glass Substrate

SUBSTRATE

Glass Type	Sodalime, Quartz, D263, Black glass — other substrates on request
Thickness	From 0.3 to 6 mm
Flatness	<10 µm / Ø 100 mm

COATING & PATTERN

Coating	High reflective chrome. Low reflective chrome at specific wavelength
Minimum Feature / Line Width	5µm standard. Down to 2 µm on request.
Maximum line width deviation	±5%
Angular accuracy	2 arcsec
Pattern concentricity with outer/inner Ø	<0.1 mm

DIMENSIONS

Outer Ø	Up to Ø200 mm as standard
Outer Ø tolerance	±0.1 mm with Ø<120 mm. ±0.2 with Ø>120 mm
Inner Ø	Up to 190 mm as standard
Inner Ø tolerance	± 0.1 mm with Ø<90 mm. ±0.2 with Ø>90 mm

COATING OPTIONS

Reflective Chromium

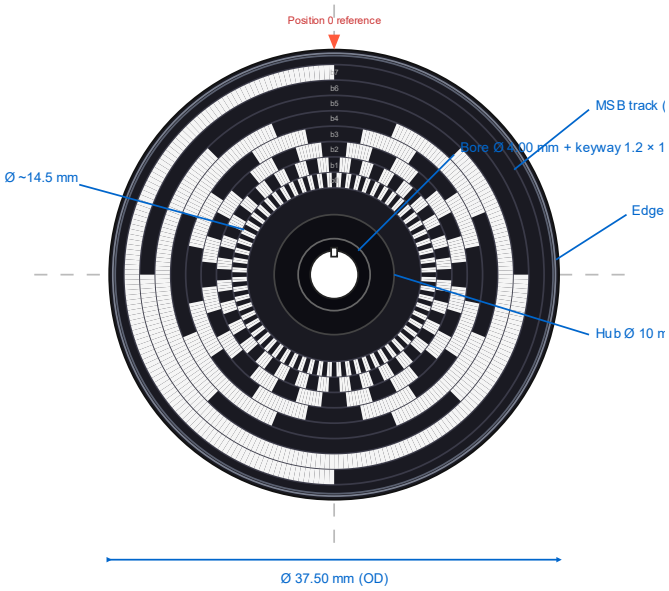
High reflective chrome(R>60%) combined with black glass provide high contrast between chrome and glass areas for reliable signal output.

Low reflective Chromium

Low reflective chrome with R<10% at a defined wavelength can be used to minimize unwanted reflections of patterned area.

ABSOLUTE ROTARY ENCODER DISK — Ø 37.5 mm

Dark glass substrate— 8-bit Gray code (256 positions) + index



HOW TO ORDER

Please provide the following information when requesting a quotation:

1	Encoder dimensions.
2	Data input — DXF, Gerber, GDS or PDF format
3	Glass type
4	Coating type
5	Required quantity and delivery timeframe

Request a Quote

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Optical Encoder Scale - Glass Substrate

SUBSTRATE

Glass Type	Sodalime, Quartz, D263, black glass — other substrates on request
Thickness	From 0.3 to 4.8 mm
Flatness	<10 µm / 100 mm

COATING & PATTERN

Coating	High reflective chrome. Low reflective chrome at specific wavelenght
Minimum line width	5µm standard. Down to 2 µm on request
Global length accuracy	Down to ± 1µm

DIMENSIONS

Linear Length	Up to 900 mm as standard
Dimensional Tolerance	±0.1 mm for Length and Width

COATING OPTIONS

Reflective Chromium

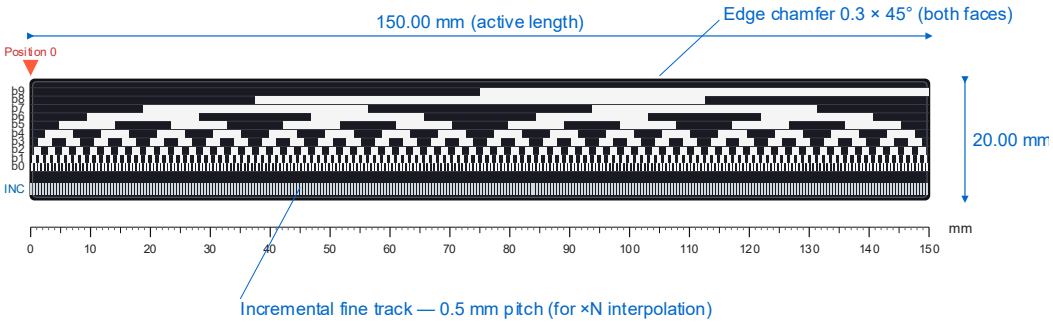
High reflective chrome(R>60%) combined with black glass provide high contrast between chrome and glass areas.

Low reflective Chromium

Low reflective chrome with R<10% at a defined wavelength can be used to minimize unwanted reflections of patterned area.

ABSOLUTE LINEAR ENCODER SCALE — 150 × 20 mm

Dark glass substrate — 10-bit Gray code (1024 positions, 0.146 mm step) + incremental fine track



Substrate: dark glass (B270 / soda-lime tinted, OD ≥ 4), polished both sides, thickness 3.0 mm ± 0.05 mm — edge chamfer 0.3 ×
Pattern: chrome opaque with clear (etched) windows — 10-bit reflected binary (Gray) code, MSB top → LSB above incremental
Resolution: 1024 absolute positions over 150 mm (0.1465 mm/step). Incremental fine track at 500 µm pitch enables interpolation

HOW TO ORDER

Please provide the following information when requesting a quotation:

1	Linear scale dimensions
2	Data input — DXF, Gerber, GDS or PDF format
3	Glass type
4	Coating type
5	Required quantity and delivery timeframe

Request a Quote

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Film Photomask

SUBSTRATE & COATING

Material	Silver halide photographic emulsion coated on Polyester.
Substrate Thickness	0.18 mm (180 µm)

PATTERN & RESOLUTION

Minimum Feature	7 µm for line, 12µm for circle.

DIMENSIONS

Dimensions	Up to 28x32 inches
Customized size	Custom size on request

USE CASES

Film photomasks are more affordable than glass masks, thus ideal for prototyping and relevant for numerous applications, including:

1. PCB
2. Semiconductors
3. MEMS
4. Microfluidics

HOW TO ORDER

Photomasks are made to order. Please provide the following information when requesting a quotation:

1. Mask dimensions
2. Minimum features size
3. Input data: GDS,CIF,DXF, Gerber 274
4. Required quantity and delivery timeframe

Request a Quote

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High-precision photolithography and glass machining

PRODUCT DATASHEET

Calibration Plates and Targets

SUBSTRATE & COATING

Substrate Material	Glass Sodalime, Quartz, D263, optical filter — other substrates on request
Coating on Substrate	Reflective chromium (R > 60%) or antireflective chromium (R < 5% at a specific wavelength)

PATTERN & RESOLUTION

Minimum Feature / Line Width	0.6 µm
Pattern Types	custom patterns or standardized test chart such as USAF1951, Siemens star

DIMENSIONS

Dimensions	According to customer specifications
Machining	Machining with precise alignment of the pattern to the outer shape
Dimensional Tolerance	±0.1 mm on cut dimensions (tighter tolerances on request)

TYPICAL USE CASES

Optical System Calibration

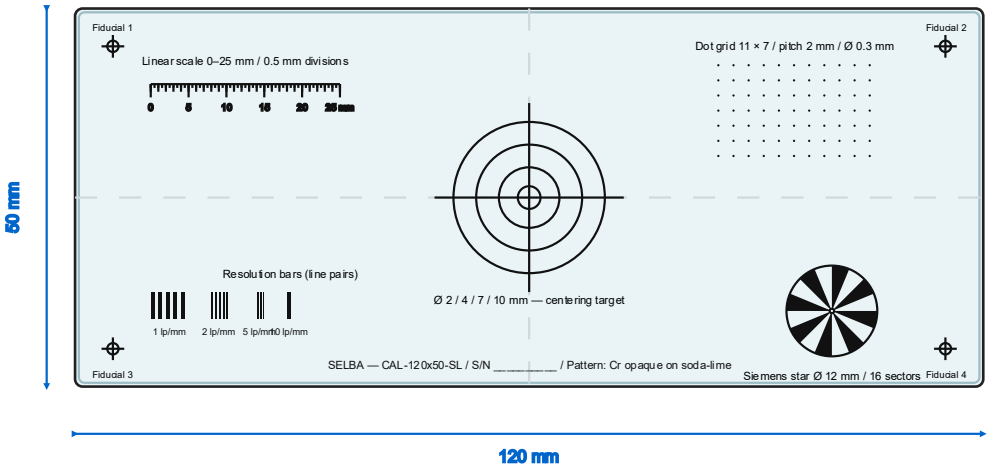
Precise chromium patterns on optically flat substrates provide reference features for calibrating cameras, microscopes, and metrology instruments. Reflective and antireflective chromium coatings deliver the high contrast required for accurate measurement and image analysis.

Precision Metrology Targets

Used for machine vision, microscopy, and dimensional metrology. Precise alignment of the pattern to the outer shape ensures reliable referencing and repeatable measurements.

High-precision photolithography and glass machining

PRODUCT DATASHEET



HOW TO ORDER

Calibration plates and targets are manufactured to order. Please provide the following information when requesting a quotation:

1	Plate dimensions and outer shape — according to customer specifications
2	Data input — GDS, DXF, Gerber, or PDF format
3	Substrate material — Sodalime, Quartz, D263, optical filter, or other on request
4	Coating — reflective chromium (R > 60%) or antireflective chromium (R < 5%), single- or double-sided
5	Required quantity and delivery timeframe

Request a Quote

Contact us for custom calibration plate and target solutions tailored to your application and specifications.

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