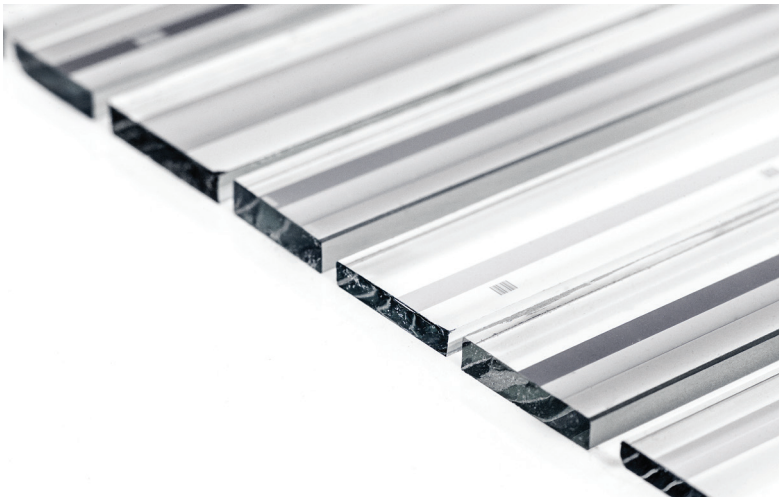
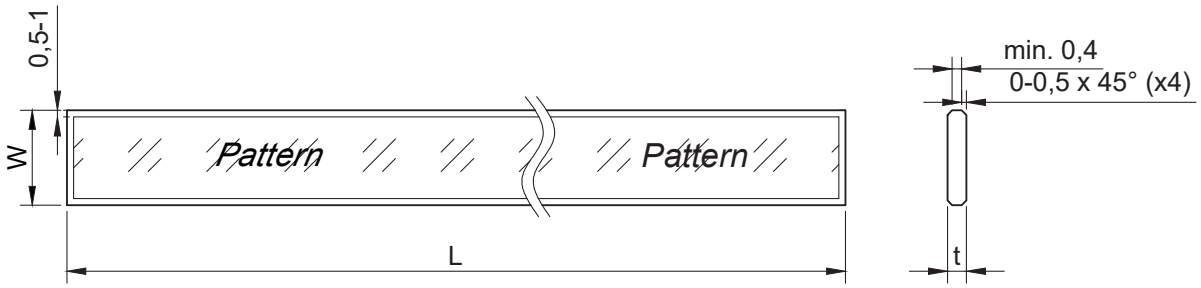
Micro Optical
by Precizika Metrology

LINEAR SCALES



Linear scales are available in lengths of up to 3400 mm! Wide selection of substrate material includes float glass, BK7, optical glass, ceramics, aluminium oxide, as well as low coefficient of thermal expansion options like quartz glass, borosilicate, robax, zerodur and others. Depending on the industry and application, different specifications can be selected to better suit customer needs.



L - Scale length (10-3400mm); W - Scale width (3-50mm); t - thickness (0,5-8mm)

MATERIAL

Substrate material	float glass, BK7 optical glass, ceramics, aluminium oxide and others. Low CTE: quartz glass, borosilicate, Robax, Zerodur.
Thickness of substrate	0,5 - 8 mm
Max. scale length	3400 mm
Max. measuring length	3360 mm
Proccessing	Scribed and broken, laser cutting
Outbreaks on edges	< 0.1 mm, edges linearity 0.1 mm/m
Grinded, polished glass	Edges linearity up to 0.015 mm/m
Coating	Chrome, alumininum, silica, anti-reflective chrome and others on request

Graduation line's width max. tolerance	±5%
Accuracy grades	±1; ±2; ±3 µm (L < 1m); ±2; ±3; ±5 µm (L < 3.4 m)
Graduation parallelism to glass edge	< 0.1 mm/m
Shape of graduation line	Rectangular if L > 400 mm; any if L < 400 mm
Max. available height of graduation pattern	32 mm
Variation of light transmission of incremental scale pattern	±3%

PATTERN

Incremental track;
Incremental track with fixed or variable pitch and track with reference mark; distance-coded marks.
Incremental and absolute tracks + reference mark and aphodisation.
Labels and different shaped marks.

Other glass types, glass thicknesses and shapes of graduations lines can be provided. Please contact us with your ideas, drawings, needed specifications and other information and we will talk about the options.