



robogonio alpha8

The multifunctional goniophotometer machine

The robogonio enables the flexible measurements of angle-dependent photo- and radiometric parameters and combines the advantages of several conventional goniophotometer types into one device.

The solid 6-axis construction of the goniometer supports the positioning of the samples (light sources and luminaires) as well as the manipulation of their angles with high precision and reliability. The large number of mechanical variances in the traditional A, B or C planes using one single measurement system thus combines the goniometer types 1.1, 1.2 and 1.3 according to DIN EN 13032-1 into one device.

Depending on the configuration, the goniometer types 2.x, 3 and 4 can also be realised. The robogonio alpha 8 is able

to concretely measure luminous intensity and radiant intensity distributions (EULUMDAT, IES etc.) and in extension also color distributions as well as luminance distributions (glare).

Near-field goniometric measurements to generate ray data are also possible. Furthermore, any geometry can be scanned. Due to the robogonio's high flexibility, several applications can be realized by one single device. In addition, the system can easily be upgraded at a later date. All configurations can be run by the goniometer software. Setup routines and cross-laser modules facilitate and speed up a precise installation and adjustment of the sample.

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Any configuration possible.

Example:

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The alpha line is equipped with the solid photometer frc'3 for luminous intensity measurements. Measurements of the luminous intensity distribution (LID) are conducted step by step with the desired measurement resolution. A typical LID measurement takes about 100 minutes.



Specifications

The robogonio alpha 8 has a rated payload of 8 kg. It is available in a variety of rated payloads of 4 kg up to 1300 kg.

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|---------------------------|--|
| Rated payload | 8 kg |
| Number of axes | 6 |
| Weight | 160 kg |
| Max. work envelope radius | 1420 mm |
| Position repeatability | up to $\pm 0,04$ mm |
| Measurement resolution | up to $\pm 0,01$ ° |
| Angle repeatability | up to $\pm 0,005$ ° |
| Detector | frc'3 – radiometer / photometer (alpha line) |
| Measurement data | Luminous intensity distribution (LID) |
| Detector mountings | wall, floor, ceiling or rail system mounting |

Configurations

Depending on the configuration, multiple applications can be realized with one device. Options are:

| | | |
|--------|---|---|
| -f | Goniophotometer (far field, alpha line) | Photometer frc'3 |
| -l | Goniophotometer (far field, pro line + top line) | fast high-end-photometer (Class L) frc-f-l |
| -spc | Goniospectrometer | Spectrometer spec'3 |
| -spr | Goniospectroradiometer (far field) | Spectroradiometer spr'3 |
| -si | Near field goniophotometer (near field, far field, ray data) | Luminance measuring camera luca photometer frc'3 |
| -sic | Ray data goniophotometer (near field, far field, ray data, polychromatic) | Luminance and color measuring camera luca'color and spectroradiometer spr'3 |
| -rr | Goniophotometer system for measuring the retro-reflexion | High-end-photometer (Class L) frc-f-l, projector |
| -h | Auxiliary photometer according to DIN EN 13032-4 | Photometer frc'3 (small version) |
| -phi-f | Luminous intensity and luminous flux measurement with a stationary light source | Photometer frc'3 with 7 th axis |
| -phi-l | Luminous intensity and luminous flux measurement with a stationary light source | fast high-end-photometer (Class L) frc-f-l with 7 th axis |
| -fls | Goniophotometric flash measurement (effective flash light strength according to Blondel-Rey or Schmidt-Clausen) | only available in combination with an -l robogonio |