



PrismMaster® Flex

Flexible goniometer
for quality control in
optics manufacturing





Passion for optics

TRIOPTICS develops and produces the world's most largest range of optical measurement and manufacturing technology for the development, quality control and production of lenses, lens systems and camera modules.

PrismMaster® Flex

The PrismMaster® Flex is a versatile goniometer with a modular product concept. It is particularly suitable for quality control of prisms and plano optical components in optics manufacturing. The system is available in the three configuration levels PrismMaster® Flex, Flex 1D and Flex 2D.



Autocollimator in the swivelling arm for flexible measurement applications and ease of use

In the standard configuration with one electronic autocollimator in a swivel arm the PrismMaster® Flex as a highly flexible comparison goniometer enables the production-related quality testing of prisms and plano optics with measurement times of less than 1 sec per sample.

Besides simple comparison measurements with high speed, advanced configurations are capable of numerous measurement applications. The PrismMaster® Flex 1D captures the position information of the swivel arm. The PrismMaster® Flex 2D additionally captures the position information of the sample table. The numerous measurement possibilities of the PrismMaster® Flex 1D and 2D include angle measurement in absolute values and measurement of spatial angular relationships.

Each of the three configurations (PrismMaster® Flex, Flex 1D, Flex 2D) is upgradable with additional options to cover specific individual measurement tasks. With up to two additional collimators or autocollimators as well as a narrowband lightsource the flexible goniometer is suitable, for example, for measuring of deflection angles in transmission or for determination of the refractive index.

Key features

- Modular goniometer in three configuration levels
- Options for all configuration levels, e.g. for measurement of deflection angles as well as determination of the refractive index
- Measurement in reflection for outer prism angles and in transmission for deflection angles
- Mechanical ball bearing, no compressed air required
- Measurement is traceable to international standards



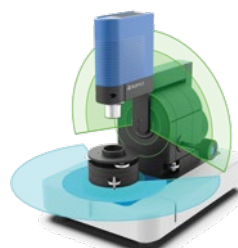


Production-related quality testing of prisms and plano optics with short measurement times

Configurations

and their applications at a glance

PrismMaster®

| Flex | Flex 1D | Flex 2D |
|---|---|---|
|  |  |  |
| Comparison goniometer | Capturing the position information of the swivel arm | Capturing the position information of swivel arm and sample rotary table |

| Comparison measurements | Flex | Flex 1D | Flex 2D |
|---|------|---------|---------|
| Surface angle (comparison measurement) | ■ | ■ | ■ |
| Deflection angle | ■ | ■ | ■ |
| On two surfaces | ■ | ■ | ■ |
| Measurement applications with absolute values | | | |
| Surface angle (absolute measurement) | | ■ | ■ |
| Tilt angle | | ■ | ■ |
| Deflection angle/ Transmission angle | | ■ | ■ |
| Parallelism of plane parallel plates | ■ | ■ | ■ |
| Refractive index | | ■ | ■ |
| Spatial angular relationships | | | ■ |
| Wedge orientation | | | ■ |
| Tilt angle of strongly inclined surfaces | | | ■ |
| Pyramidal angle | | | ■ |
| Beamsplitter cube | | | ■ |

Measurement possibilities depending on the configuration and additional options

Three configurations of the PrismMaster® Flex enable versatile measurement applications. Further applications are provided with additional options. Each of the three available configurations of the PrismMaster® Flex, Flex 1D and Flex 2D can be upgraded with up to two collimators or autocollimators and a narrowband lightsource for refractive index measurement.

Additional options

The PrismMaster® Flex can be upgraded with up to two additional collimators in order to enable the following measurement applications:

- Parallelism of plane parallel plates
- Deflection angle/transmission angle
- Measurement of beamsplitter cubes

The optional configuration with up to two additional autocollimators extends the measurement functionality. This allows the following applications to be performed:

- Comparison measurements on two surfaces
- Measurement of beamsplitter cubes

Narrowband lightsource

- Refractive index measurement
- Deviation angle



Absolute angle measurement of a roof prism with highest accuracy



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