

Technical data SpectroMaster®

	SpectroMaster® 600 HR	SpectroMaster® 600 MAN	SpectroMaster® 300 MAN
Max. measurable wavelength range. Specific wavelengths are discrete and depend on the chosen light source	195 nm ... 12,000 nm	365 nm ... 1,014 nm	365 nm ... 1,014 nm
Standard measurable wavelength range. Specific wavelengths are discrete and depend on the chosen light source	365 nm ... 1,014 nm	365 nm ... 1,014 nm	405 nm ... 643 nm
Optional measurable wavelength range. Specific wavelengths are discrete and depend on the chosen light source	UV: 195 nm ... 365 nm SWIR: 1,014 nm ... 2,325 nm MWIR / LWIR: 4,000 nm ... 12,000 nm		UV: 365 nm NIR: 1,014 nm
Apex angle measurement accuracy ¹⁾	± 0.2 arcsec	± 0.4 arcsec	± 0.5 arcsec
Refractive index measurement accuracy ¹⁾	± 2·10 ⁻⁶	± 4·10 ⁻⁶	± 5·10 ⁻⁶
Refractive index measurement repeatability (1σ)			
UV: 195 nm ... 365 nm ²⁾	3·10 ⁻⁶	--	--
VIS / NIR: 365 nm ... 1,014 nm	1·10 ⁻⁶	1·10 ⁻⁶	1·10 ⁻⁶
SWIR: 1014 nm ... 2325 nm ³⁾	5·10 ⁻⁶	--	--
MWIR / LWIR: 4,000 nm ... 12,000 nm ⁴⁾	1·10 ⁻⁴	--	--
Collimator	<ul style="list-style-type: none"> off-axis parabolic mirror collimator adjustable target slit 	<ul style="list-style-type: none"> off-axis parabolic mirror collimator adjustable target slit 	Focusing refractive collimator
Autocollimator	<ul style="list-style-type: none"> off-axis parabolic mirror autocollimator geometric beam splitter 	<ul style="list-style-type: none"> off-axis parabolic mirror autocollimator geometric beam splitter 	Focusing refractive autocollimator
Spectral lamp housing	<ul style="list-style-type: none"> mounting space for 9 light sources on a motorized rotary stage motorized filter changer for 17 interference filters 	<ul style="list-style-type: none"> mounting space for 9 light sources on a rotary stage for manual selection motorized filter changer for 17 interference filters 	Standard: <ul style="list-style-type: none"> Spectral lamp housing for a single spectral lamp (HgCd) manual filter exchange Optional: <ul style="list-style-type: none"> mounting space for 8 light sources on a rotary stage for manual selection

1) Accuracy is traceable to national standards and repeatability is verified by measurement of a certified reference prism (material N-BK7, homogeneity H4, apex angle 65°, aperture Ø30mm, surface quality λ/10) at the following wavelengths: 404.6 / 435.8 / 479.9 / 508.6 / 546.1 and 643.8 nm
 The fulfilment of the above mentioned specifications requires optimal and stable environmental conditions regarding temperature (±0.1°C), humidity (50-70%), pressure (±0.5 hPa) and air flow, a high surface quality of the sample (< λ/10) and a sample aperture of no less than Ø30 mm. Furthermore we recommend the "Meteo Station 5-400-030" as accessory to monitor the environmental conditions.

2) Verified at wavelengths 312 and 365 nm with a reference sample (material fused silica, apex angle 65°, aperture Ø30 mm)

3) Verified at wavelengths 1,014 and 1,530 nm with a reference sample (material N-BK7, apex angle 65°, aperture Ø30 mm)

4) Verified at one wavelength in the specified range with a reference sample (material ZnSe, apex angle 20°, aperture Ø20 mm)