



AlignMeter USB

Measurements of position and angular displacements of laser beams



- Analyzes angular directions ($\theta_x \theta_y$) and position direction of incoming laser beam into its aperture
- Versatile – Measures Power and Angular incoming direction using PSD detector technology
- Precise: Down to 0.1 μm resolution & 50 Hz digital filter, and down to 0.005 mRad resolution.
- Two basic versions: 50 mm & 100 mm Focal Length, other options are available.

Specifications

50 mm Focal Length

PSD size	9 x 9 mm	4 x 4 mm
Usable beam size range	50 μm to 8 mm	50 μm to 3 mm
Update rate	Max. 150 Hz at 500 Hz digital filter	Max. 150 Hz at 500 Hz digital filter
Spectral range	350 - 1100 nm	350 - 1100 nm
Position measurement range	8 mm dia. circle max.	3 mm dia. circle max.
Power range	10 μW - 10 mW with filters	10 μW - 10 mW with filters
Power accuracy (*)	$\pm 5\%$	$\pm 5\%$
Angle measurement range	180 mRad	90 mRad
Angle resolution	0.02 mRad (50 Hz Filter)	0.01 mRad (50 Hz Filter)

100 mm Focal Length

PSD size	9 x 9 mm	4 x 4 mm
Usable beam size range	50 μm to 8 mm	50 μm to 3 mm
Update rate	Max. 150 Hz at 500 Hz digital filter	Max. 150 Hz at 500 Hz digital filter
Spectral range	350 - 1100 nm	350 - 1100 nm
Position measurement range	8 mm dia. circle max.	3 mm dia. circle max.
Power range	10 μW - 10 mW with filters	10 μW - 10 mW with filters
Power accuracy (*)	$\pm 5\%$	$\pm 5\%$
Angle measurement range	80 mRad	40 mRad
Angle resolution	0.01 mRad (50 Hz Filter)	0.006 mRad (50 Hz Filter)

(*) – To maintain full calibration accuracy, attenuating optical filter (ND) may be necessary for operation with beams greater than 1 mW per PSD @ 633 nm

Ordering Information

Complete system including a manifold box, USB2.0 cable, measuring head, software and user manual on CD/Flash Drive, carrying case.

ALIGN-USB-50-9x9: Measuring head with focal length $f=50\text{mm}$
ALIGN-USB-50-4x4:
ALIGN-USB-100-9x9: Measuring head with focal length $f=100\text{mm}$
ALIGN-USB-100-4x4:

Optional accessories

ALIGN-FLT-NG4: NG4 filter in housing
ALIGN-FLT-NG9: NG9 filter in housing
ALIGN-FLT-NG10: NG10 filter in housing
ALIGN-HOOD: 55mm long, for ambient light suppression

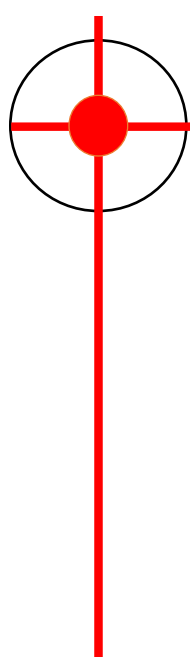
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September 2026

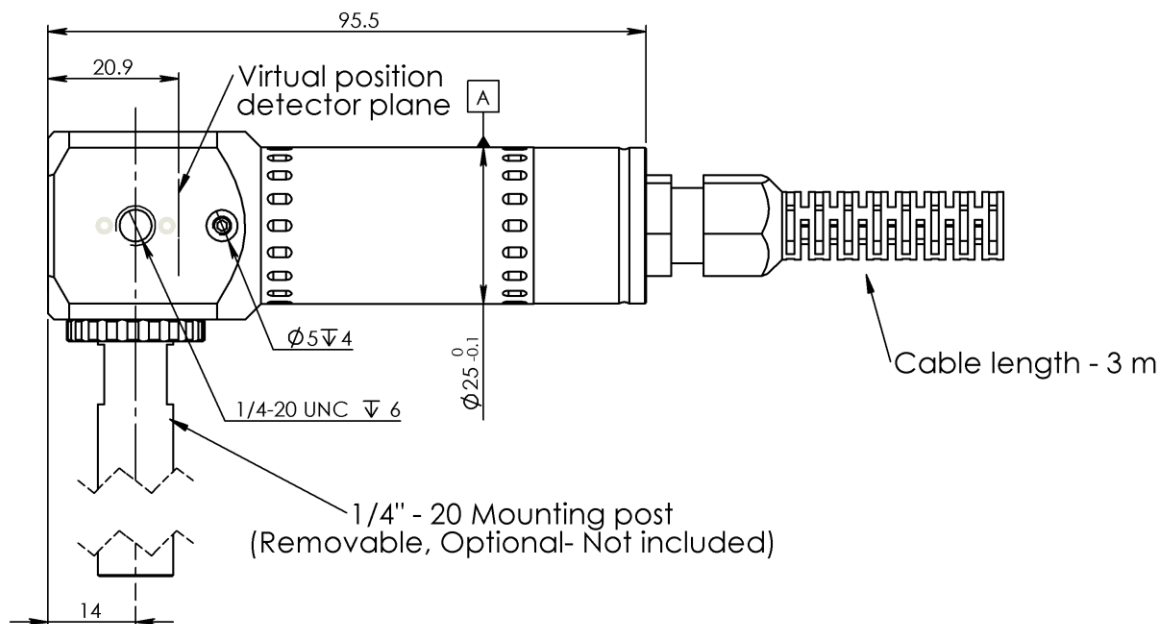




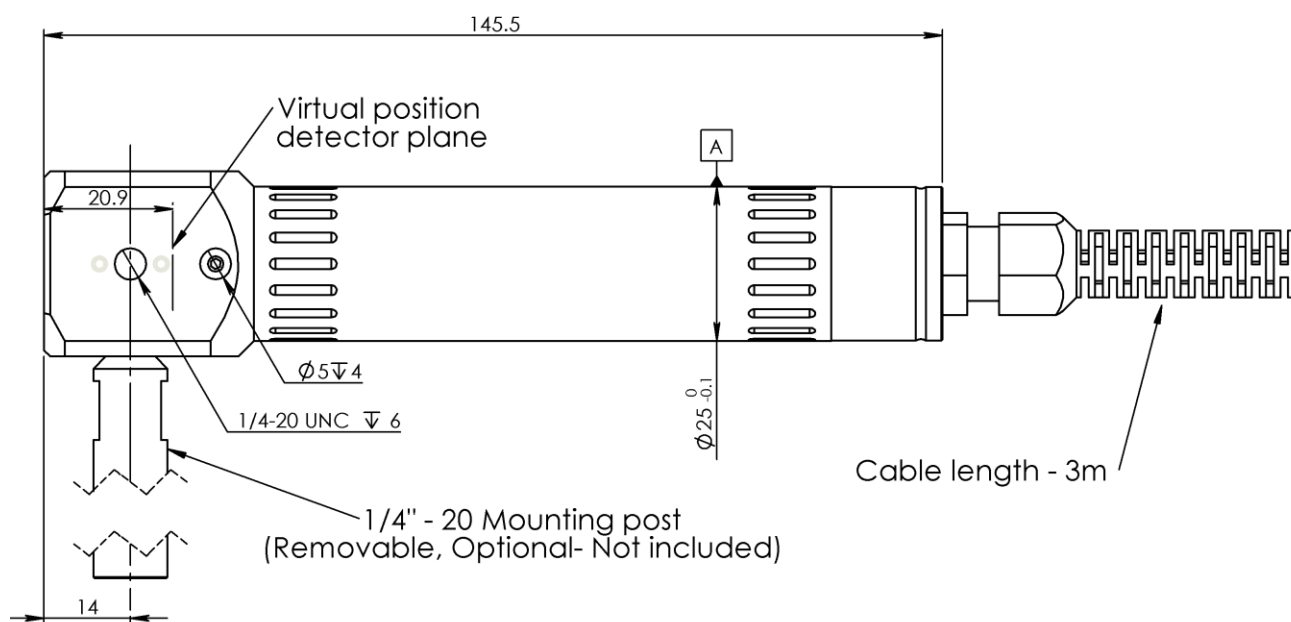
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100 mm Focal Length



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