KI 9600 Series

Optical Power Meter

Optical Communications Test Applications

- System power testing
- Attenuation testing
- Fiber identification
- Wavelength Selective Option for PON



Revision 28

The KI 9600A series shirt-pocket Optical Power Meter is used for testing fiber optic communications systems.

2% traceable calibration accuracy, ease of use and high availability combine to achieve superior measurement confidence.

Detector & calibration options cover a wide range of connector types, fiber types, common wavelengths, and power levels from +24 to -60 dBm.

A new VE detector option provides optimal absolute accuracy across all multimode and single mode wavelength bands.

Features

- Simple to use
- Rugged & drop-resistant construction
- Shirt pocket size with spring clip
- Large sunlight readable display
- Interchangeable connectors
- 300-hour battery life
- dBm, dB, linear, tone Hz
- Multi-fiber ID for fiber identification
- Power averaging mode for modulated signal
- Tamper-lock mode for low skill measurement
- Max / Min recording & display hold
- Up to 10 calibrated wavelengths
- ISO 17025 traceable calibration certificate
- 3-year warranty & calibration cycle
- Made in Australia

KI 9600 Series - Optical Power Meter

The small KI 9600A Pocket Fiber Meter is ideal for measuring absolute / relative light levels or test tones on single mode, multimode systems. High traceable accuracy and ease of use make it perfect for field or laboratory.

Tough construction includes moisture resistance, rubber corners, a captive connector dust cap and it can be dropped over 2 meters onto a hard surface. This instrument meets MIL PRF 28800F Class 2. Calibration is ISO 17025 traceable.

When used with multiple KI 9800 sources, the multi-Fiber ID feature can uniquely identify up to 12 fibers.

Operational savings come from a 3-year warranty, 300 hours of battery life, and fast operation.

The meter displays mW, µW, nW, dB, dBm to 0.01 dB resolution. A separate reference for each λ can be stored.

A Power Averaging Mode measures the average power of modulated or unstable signals.

The Tamper-lock mode allows a site manager to lock and track instrument settings to reduce measurement skill and improve both test confidence and traceability.

Interchangeable optical connectors are dust and drop protected. Other styles include the popular LC.

The innovative and unique VE meter is the preferred solution for both single mode and multimode testing from 650 – 1650 nm. It provides typical InGaAs performance for single mode testing, and greatly improved absolute accuracy in the 850 nm band, for up to 50 u core fiber

The InGaAs meter is the preferred solution for single mode testing from 900 – 1650 nm.

H series meters are available for high power testing. They offer good immunity to wavelength and reflection effects.

For testing 1 mm POF, ribbon fiber, MT-RJ, expanded beam connectors etc., refer to the alternative KI 9600XL brochure for instruments with large area detectors.

TECHNICAL SPECIFICATIONS

Response λ (nm)	Damage level (dBm)	Calibration λ (nm)	Power range (dBm)	Tone & mulita-fiber ID Sensitivity[6] (dBm)	Midrange linearity[1] (dB)	Calibration Accuracy[2] (%)	Polarization Sensitivity[5] (dB)	λ Sensitivity[4] ± 30 nm (dB)	Max Fiber Core Size (um)
InGaAs detector									
600 ~ 1700	+15	850 **1300, 1310, 1390, 1490, 1550,** 1610, 1625	+5 ~ -60	-40 -50	0.04	2 (0.09 dB)	< 0.05	0.2	100
H3B (InGaAs) detector									
800 ~ 1700	+27[3]	850 **1300, 1310, 1390, 1490, 1550, 1590,** 1610, 1625	+24 ~ -40	-20 -30	0.04	2 (0.09dB)	< 0.05	0.2	100
H5 (InGaAs) detector									
800 ~ 1700	+25[3]	850 **1300, 1310, 1390, 1490, 1550, 1590,** 1610, 1625	+15 ~ -50	-30 -40	0.04	2 (0.09dB)	< 0.05	0.2	100
VE (Visual Enhanced InGaAs) detector									
470 ~ 1650	+15	635, 650, **850** **1300, 1310, 1390, 1490, 1550,** 1610, 1625	+5 ~ -60	-40 -50	0.04	2 (0.09 dB)	< 0.05	0.3	50
					typical		typical	typical	

Note 1: Mid-range linearity @ 1550 nm. Non-coherent light, with APC connector. Excludes top 5 dB and bottom 10 dB of range.

Note 2: Calibration condition: non-coherent light, -35±5 dBm, 23±3°C, ±0.5 nm, 20±3 nm FWHM, PC ceramic connector, 50 µm fiber.

Note 3: H5 & 3B can sustain the damage level for 2 minutes.

Note 4: For calibration wavelengths in bold type.

Note 5: For APC connectors only.

Note 6: Tone detection up to 1 KHz.

Technical data is subject to change without notice as part of our program of continuous improvements.

GENERAL SPECIFICATIONS

Parameters	Value
Battery life	300 hours
Size	124 x 81 x 25 mm, 4.9 x 3.2 x 1.0"
Weight	0.15 kg, 0.33 lb. Shipping 0.5 kg, 1.1 lb.
Operating / Storage	-15 to 55 °C / -25 to 70 °C
Relative humidity	0 ~ 95%
Case	Polycarbonate with captive dust cap, 2.5-meter drop tested.
Tone detection	200 ~ 2500 Hz ± 2 %
Recommended calibration cycle	3 years
Max / min	Recording feature for stability testing
Power	2 alkaline AAA cells. Selectable auto-off, low battery indicator

ORDERING INFORMATION

Description	Part number
Instrument, Power Meter InGaAs	KI 9600A-InGaAs
Instrument, Power Meter H3B	KI 9600A-H3B
Instrument, Power Meter H5	KI 9600A-H5
Instrument, Power Meter VE	KI 9600A-VE

STANDARD ACCESSORIES

Description	Quantity
Option, Hybrid Adaptor, Ceramic Sleeve, SC/SC (OPT046)	1
Carry pouch (OPT156*)	1
Wrist strap	1
ILAC/ NATA traceable certificate	1
QA certificate	1
Quick Reference Guide	1

Supplied optical interchangeable connector adaptor has a ceramic (metal-free) sleeve.

OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

Description	Part number
Option, Hybrid Adaptor, Ceramic Sleeve, SC/FC	OPT051
Option, Hybrid Adaptor, Ceramic Sleeve, SC/LC, metal body	OPT076
Option, Hybrid Adaptor, Ceramic Sleeve, SC/ST	OPT040
Option, Hybrid Adaptor, Ceramic Sleeve, SC/D4	OPT055
Option, Hybrid Adaptor, Ceramic Sleeve, SC/MU	OPT080
Option, Hybrid Adaptor, Ceramic Sleeve, SC/LSA-DIN47256	OPT071
Option, Hybrid Adaptor, POF Multi-adaptor	OPT077
Option, Hybrid Adaptor, HFBR	OPT078
Option, Hybrid Adaptor, Ceramic Sleeve, SC/E2000	OPT060
Option, Hybrid Adaptor, Ceramic Sleeve, SC/E2000 Green	OPT060G
Option, Hybrid Adaptor, Ceramic Sleeve, SC/Universal 1.25 mm	OPT085
Option, Hybrid Adaptor, Ceramic Sleeve, SC/Universal 2.5 mm	OPT081
Option, Hybrid Adaptor, Metal Sleeve, SC/SMA 905/906	OPT082
Option, Hybrid Adaptor, Ceramic Sleeve, SC/F3000 or LC Simplex, plastic body	OPT072

The power meter works with both PC and APC connectors.



AUTHORIZED DEALER

KINGFISHER a TEMPO company

Kingfisher International Pty Ltd
720 Springvale Road, Mulgrave
VIC 3170 Australia

T +61 3 8544 1700
F +61 3 8544 1793
E sales@kingfisher.com.au

kingfisherfiber.com