

## UM-B

5 nW - 25 mW, radiometer for ultra-low power measurements



### OUTPUT OPTIONS

- > **SMART DB15 CONNECTOR**  
Contains all the calibration data  
Included in UM9B-BL-D0 model only
- > **ANALOG OUTPUT**  
When used with APM analog power supply

### COMPATIBLE DISPLAYS & PC INTERFACES



MIRO ALTITUDE



MAESTRO



U-LINK



M-LINK



APM analog power supply  
(for UM9B-BL-L-D0)

### KEY FEATURES

- > **VERY LOW NOISE LEVEL**  
Noise levels of a photodetector, but with the large bandwidth of a pyroelectric:
  - Down to 5 nW when using the analog power module (APM)
- > **VERY HIGH RESPONSIVITY**  
Up to 20 000 V/W when using the analog power module (APM)
- > **VERY LARGE BANDWIDTH**  
From DUV to FIR thanks to pyroelectric technology
- > **INCLUDES AN ISOLATING TUBE TO BLOCK UNDESIRED NOISE FROM THE ENVIRONMENT.**

### ACCESSORIES



Stand with delrin post





SDC-500 digital  
optical chopper

# UM-B

Specifications

CE NIST\*  
Traceable   
\*Also traceable to NRC-CNRC



	UM9B-BL-L-D0	UM9B-BL-D0
<b>MAX AVERAGE POWER</b>	200 $\mu$ W	20 mW (MAESTRO), 25 mW (M-LINK)
<b>EFFECTIVE APERTURE</b>	9 mm $\phi$	9 mm $\phi$
<b>COMPATIBLE DISPLAYS &amp; PC INTERFACES</b>	APM	MIRO ALTITUDE, MAESTRO, U-LINK and M-LINK
<b>MEASUREMENT CAPABILITY</b>		
<b>Spectral range</b>	0.1 - 20 $\mu$ m	0.1 - 20 $\mu$ m
<b>Calibrated spectral range</b>	0.248 - 2.1 $\mu$ m <sup>a</sup>	633 nm <sup>b</sup>
<b>Maximum measurable power</b>	200 $\mu$ W	20 mW (MAESTRO), 25 mW (M-LINK)
<b>Noise equivalent power (RMS)</b>	5 nW	300 nW
<b>Rise time (0-100%)</b>	$\leq$ 0.2s	$\leq$ 0.2s
<b>Calibration uncertainty</b>	$\pm$ 4% at 1064 nm	$\pm$ 4% at 1064 nm
<b>Chopper frequency</b>	5 $\pm$ 1 Hz	10 $\pm$ 1 Hz
<b>DAMAGE THRESHOLDS</b>		
<b>Maximum average power density (1064 nm)</b>	50 mW/cm <sup>2</sup>	50 mW/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>		
<b>Effective aperture</b>	9 mm $\phi$	9 mm $\phi$
<b>Sensor</b>	Pyroelectric	Pyroelectric
<b>Absorber</b>	BL	BL
<b>Dimensions</b>	38.1 $\phi$ X 79D mm	38.1 $\phi$ X 79D mm
<b>Weight</b>	91 g	91 g
<b>ORDERING INFORMATION</b>		
<b>Available output options</b>	DB15 only	DB15 only
<b>Compatible stand</b>	STAND-D-233	STAND-D-233
<b>Product page</b>		

a. Calibrations at 2.1 to 2.5  $\mu$ m and 10.6  $\mu$ m are available on special request.  
b. Typical wavelength correction factors are provided for 0.19 to 2.1  $\mu$ m.

Specifications are subject to change without notice