

## 5 Specifications

The specifications are valid 30 s after switching on.

### 5.1 OLP-10

#### 5.1.1 Wavelength

Application range . . . . . 800 to 1700 nm

Selectable  
wavelengths . . . . . 820, 850, 1300, 1310, 1550 nm

#### 5.1.2 Sensor

Photodiode . . . . . Germanium

Acceptable fiber types . . . . . 9/125 to 100/140  $\mu\text{m}$

#### 5.1.3 Power measurement

The optical power level of unmodulated light or the average power level of modulated light emanating from a fiber optics cable is measured and displayed.

Display range . . . . . -70 to +11 dBm

Maximum permitted power level . . . . . +13 dBm

Intrinsic measurement error<sup>1</sup> . . . . .  $\pm 0.13$  dB (=  $\pm 3\%$ )

Overall measurement error in the temperature range  
-5 to +45 °C and power level range -55 to +5 dBm<sup>2</sup>

Wavelength	without zeroing	with zeroing
820 nm	$\pm 0.6$ dB $\pm 12$ nW	$\pm 0.6$ dB $\pm 1.6$ nW
850 nm	$\pm 0.3$ dB $\pm 12$ nW	$\pm 0.3$ dB $\pm 1.6$ nW
1300, 1310 nm	$\pm 0.25$ dB $\pm 3$ nW	$\pm 0.25$ dB $\pm 0.4$ nW
1550 nm	$\pm 0.70$ dB $\pm 3$ nW	$\pm 0.70$ dB $\pm 0.4$ nW

Table 5-1 Overall measurement error, OLP-10

### 5.1.4 Modulation detection

for the frequencies. . . . . 270 Hz, 330 Hz, 1 kHz, 2 kHz  
in the power level range

at 820, 850 nm . . . . . -45 to +11 dBm

at 1300, 1310, 1550 nm . . . . . -50 to +11 dBm

1 Reference conditions: -20 dBm (CW), 1310 nm  $\pm 1$  nm,  
23 °C  $\pm 3$  °C, 45 to 75% relative humidity.

2 -50 to +5 dBm at 820 and 850 nm

## 5.2 General specifications

### 5.2.1 LCD display

Level display . . . . .	.4-digit
Absolute level in . . . . .	dBm, mW, $\mu$ W
Level difference in . . . . .	dB
Resolution . . . . .	0.01 dB <sup>1</sup> / 0.001 $\mu$ W
Storage of measured value . . . . .	HOLD function
Display backlight. . . . .	< approx. 20 s (auto off) (BACKLIT function)

### 5.2.2 Reference level

Transfer of the measured value or entry of any value using the arrow keys.	
Setting range . . . . .	-80 to +30 dBm

### 5.2.3 Optical connector

Test adapter . . . . .	BN 2014/00.xx
Connectors . . . . .	see under "Ordering information"

<sup>1</sup> The resolution is 0.1 dB for levels < -60 dBm (OLP-15A/-16A/-18A)

## 5.2.4 Other specifications

### Power supply

Dry batteries . . . . . 2 x Mignon (AA size), 1.5 V

NiCd batteries . . . . . 2 x Mignon (AA size), 1.2 V

#### Operating time

Dry / NiCd batteries . . . . . typically 36 h / 12 h

The instrument switches off automatically after approx. 20 minutes to conserve battery power (function can be disabled)

AC line operation . . . . . using separate AC adapter

Battery charging . . . . . using separate charge adapter

#### Electromagnetic

compatibility . . . . . to EN 50 081-1, 50 082-1

### Ambient temperature

Nominal range of use . . . . . -10 to +55 °C

Storage and transport . . . . . -40 to +70 °C

### Air humidity

#### Nominal ranges of use

relative humidity, up to 40 °C . . . . . 5 to 95%

absolute humidity, >40 °C . . . . .  $\leq 30 \text{ g/m}^3$

Occasional condensation is permitted as a limit condition.

**Mechanical tests**

- Vibration, 3 axis . . . . . acc. to IEC 68-2-6  
 10 Hz to 55 Hz,  $\pm 0.35$  mm, 3 x 30 min
- Continuous shocks, 3 axis. . . . . acc. to IEC 68-2-29  
 250 m/s<sup>2</sup>, 6 ms, 3 x 1000 shocks
- Drop test, 0.8 m . . . . . acc. to IEC 68-2-32/2

**Dimensions and weight**

- Weight . . . . . approx. 500 g
- Dimensions (w x h x d), in mm. . . . . 83 x 36 x 155

**Calibration**

- Recommended calibration interval . . . . . 2 years

**5.3 Ordering information**

**Optical Power Meter OLP-10.** . . . . . BN 2229/03

To operate the Power Meter, one of the adapters listed below is required.

**Test cables** . . . . . K 3xxx<sup>1</sup>

<sup>1</sup> Detailed information on fiber optics test cables and couplers is given in a separate data sheet, "Optical Test Adapters and Adapter Cables"