

## INTEGRATED TAP PHOTO DETECTOR IPD-1



The IPD-1 is a single-channel optical power monitoring device which tap-integrated photodetectors. This is very compact and are easily mounted on a PCB board for system use. Optical properties are excellent and include a broad wavelength range covering both C and L-bands, low back-reflection and high sensitivity. The IPD modules eliminate the redundant use of an optical fiber coupler/splitter and a photodetector and saves significant space on a PCB board as DWDM channel counts rise. Applications include multi-channel power monitoring at DWDM multiplexers/demultiplexers or in optical amplifiers.

Optical Monitors

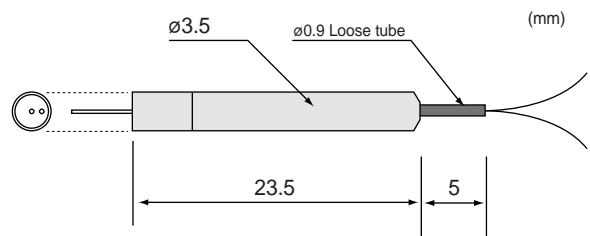
### Features

- ▶ Wide operating wavelength range (1510 -1630 nm)
- ▶ Operating temperature range from 0-70 °C with no thermal control
- ▶ Wide input power dynamic range
- ▶ Low insertion loss

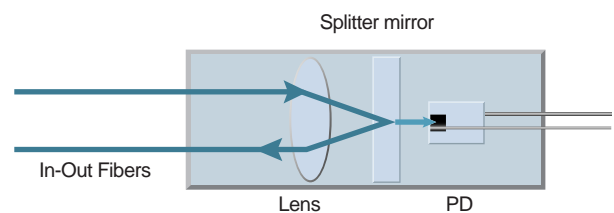
### Applications

- ▶ DWDM mux / demux channel monitoring
- ▶ Gain monitoring in amplifier systems
- ▶ Optical switch monitoring

### Dimensions



### Configuration

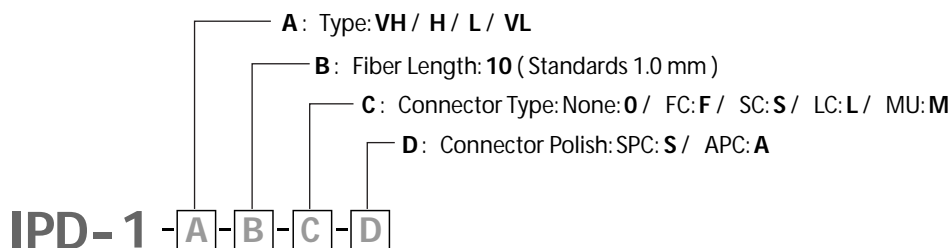


## ■ Specifications

Parameter	Unit		IPD-1				Notes
			VH	H	L	VL	
Insertion Loss	Max.	dB	1.0	0.8	0.7	0.6	
Detector Sensitivity		mA/W	70 - 120	40 - 60	20 - 50	> 8 - 20	
PDL	Max.	dB	0.1				0.03 typ.
Wavelength Range		nm	1510 - 1610				
Input Optical Power		dBm	-40 - 10	-37 - 13	-35 - 15	-30 - 20	
Return Loss	Min.	dB	45				
Fiber Type			SMF -28				0.25 mm coating
Temperature Dependence of Detector Sensitivity	Max. Max.	dB	0.3				0.6 dB@ < 1630 nm ( dB in optical )
Dark Current	Max.	nA	5				@70 °C, 5 Vbias, 0.5nAmax@25°C
Capacitance	Min.	pF	20				
Max Rating Bias	Min.	V	20				
Max Rating Forward Current	Max.	mA	2				
Rise Time	Max.	nsec	1				
Fall Time	Max.	nsec	1				
Package Dimensions		mm	ø= 3.5 l= 23.5				
Reliability			Telcordia GR-000468 certified				
Operating Temperature		°C	0 - 70				
Storage Temperature		°C	-40 - 85				

The device's performance remains within the ranges specified above throughout the specified wavelength range, for all temperatures between 0 and 70 °C, and for all states of polarization

## ■ Ordering Code



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