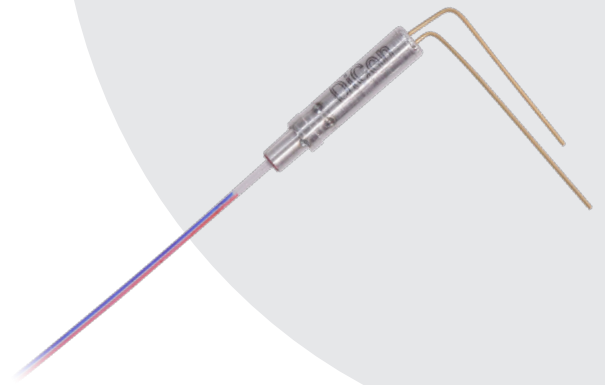


HERMETIC TAP DETECTOR SINGLEMODE

DiCon's Hermetic Tap Detector (HTD) combines the functionality of a thin film coupler and a photodetector into a single compact component for monitoring optical signals, with the added benefit of a hermetic seal for a more robust and reliable solution for rugged environments.

The HTD uses a thin film filter to tap off a percentage of the input signal only and directs it to the photodiode.



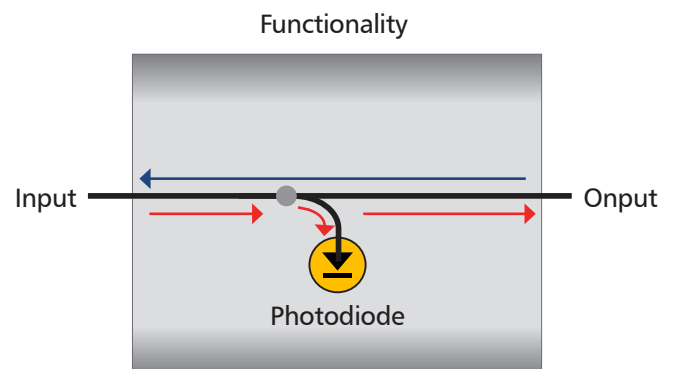
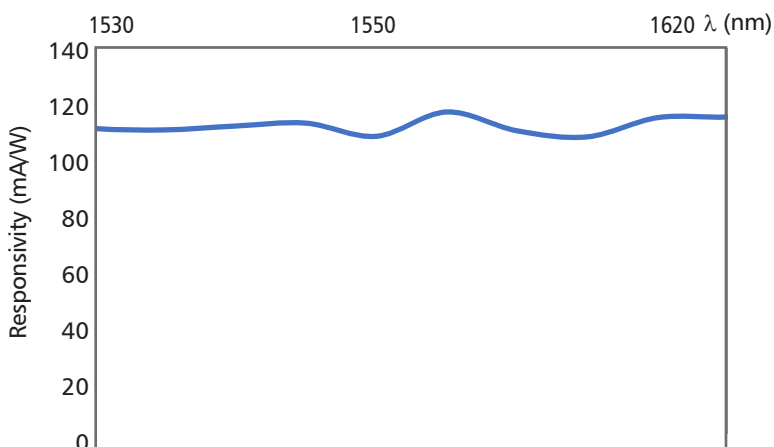
FEATURES

- High Directivity of 27 dB min, 33 dB Available
- Hermetically Sealed for Long Term Reliability
- Compact Size: 12.8 mm Long x 2.5 mm Diameter
- Flat Spectral Response

APPLICATIONS

- Optical Power Monitoring
- WDM System Channel Monitoring
- Commercial & Defense Networks

Example Spectral Response with 10% Tap Ratio



HERMETIC TAP DETECTOR

SINGLEMODE

OPTICAL SPECIFICATIONS

Specifications without connectors at approx. 23°C.

PARAMETER	Specification
Pass Band Wavelengths	O, C, L Bands
Insertion Loss	1% 0.5 dB max.
	2% 0.6 dB max.
	3% 0.7 dB max.
	5% 0.8 dB max.
	10% 1.0 dB max.
Measureable Input Power	1% -25 to 20 dBm
	2% -28 to 17 dBm
	3% -30 to 15 dBm
	5% -32 to 13 dBm
	10% -35 to 10 dBm
Directivity ¹	27 dB min.
Back Reflection	-45 dB max.
Wavelength Flatness	0.1 dB max.
Polarization Dependent Loss (PDL)	0.05 dB typ. // 0.1 dB max
Temperature Dependent Loss (TDL)	0.15 dB max. relative 23 °C
Optical Power	500 mW max.
Operating Temperature	-5 to 70 °C
Storage Temperature	-40 to 85 °C
Fiber Type	9/125 um Singlemode

1. Directivity of 33 dB minimum is available upon request.

PHOTODIODE SPECIFICATIONS

Specifications without connectors at approx. 23°C.

PARAMETER	Specification
Reverse Voltage (Vr)	20 V max.
Dark Current	1 nA max. at T = 23 °C (Vr = 5 V)
Shunt Resistance	40 MΩ min.
Capacitance	5 pF max. (Vr = 5 V)
Tap Responsivity	1% 7 to 20 mA/W
	2% 10 to 30 mA/W
	3% 20 to 40 mA/W
	5% 40 to 60 mA/W
	10% 80 to 120 mA/W
Wavelength Dependent Responsivity (WDR)	0.3 dB max
Polarization Dependent Responsivity (PDR)	0.2 dB typ. // 0.3 dB max
Temperature Dependent Responsivity (TDR)	0.2 dB max. relative to 23 °C
Linearity	± 3% @ Vr = 5 V
Bandwidth	250 MHz

ORDERING INFORMATION

HTD - □ - □ - □ - □ - □ - □

Product Code

HTD Hermetic Tap Detector

Tap Ratio

1 1%
2 2%
3 3%
5 5%
10 10%

Wavelength Range

13 1290 - 1330 nm
15 1530 - 1570 nm
16 1570 - 1610 nm

Connector Type

FC FC/UPC
FC/APC FC/APC
LC LC/UPC
LC/APC LC/APC
SC SC/UPC
SC/APC SC/APC
N None

Fiber and Jacket Type

9/BF 9/125 um Singlemode, Bare Fiber

Pigtail Length

1 1 Meter
X Specify X Meter

Pin Bending

S Straight Pins
B Bent Pins

MECHANICAL SPECIFICATIONS

Dimensions in mm

