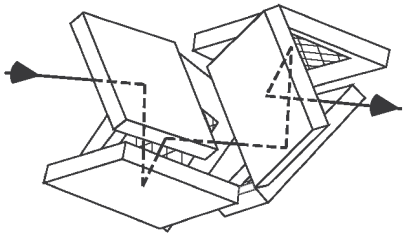
HH06-S1337
Six-element transmission photodetectors

◄ six element detector

principle beam journey ►



So-called transmission trap detector does not reflect back light: six photodiodes are mounted in such a way that non-absorbed and reflected beam from one photodiode is directed to the consequent one. Transmitted beam is weakened by three orders of magnitude, which can be easily measured. Owing to compact design the responsivity and the transmittance of the detector are polarization-independent. Typically, 6-element photodetector is applied in measurements of optical power where polarization-independent responsivity and transmitted beam are aimed at.

Parameter	Detector Model **HH06-S1337**	Notes
Active area [mm²]	50	
Spectral range [nm]	360-950	
Spectral responsivity [mA/mW]	0,35-0,7	Depends on wavelength, almost linear up to 950 nm
Quantum efficiency	>0,98	Incl transmittance
Calibration relative uncertainty [%]	0,5	Responsivity calibration
Maximum optical power density [mW/cm²]	5	
Full field of view [°]*	13	
Optical path length in the device [mm] *	84	Distance from the first reflection to the last reflection - 66mm
Maximum declination between incoming and transmitted beams [°]	0,5	
Maximum transmittance [% of incoming beam]**	1,4	@360nm
Minimum transmittance [% of incoming beam]**	0,06	@950nm
Spatial uniformity of the responsivity [%]	±0,1	Scanned @ 632,8nm
Spatial uniformity of the transmittance [%]	±1	Scanned @ 632,8nm
Dimensions (approx): *		
Diameter [mm]	65	Dimensions and type of electrical connector upon customer specifications
Length [mm]	52	
Weight (approx)[kg]	0,3	

*The given values are illustrative may depend on the customer specified features of photodetector
**The values are given for detector modeled as a photodiode with antireflection coating effective thickness 30 nm

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