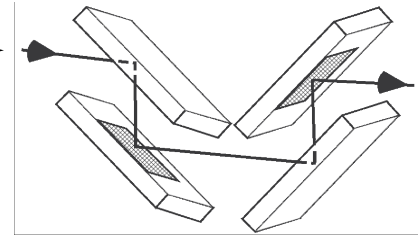




▲ four element detector  
with protective window-cap

## HH04-S1337 Four-element transmission photodetectors

principle beam journey ▶



The four-element photodetector is the simplest transmission trap detector with coaxial input and output beams. The high-quality photodiodes are arranged in the device in such a way that the entering beam undergoes reflections in one plane only. The transmitted beam is about 1 % of the input beam and can be easily analyzed behind the detector or directed into next detector. The active area of 4-element transmission photodetector is a bit less than 50 % of the single photodiode in the device. This device can be used in measurements of optical power where back-reflection is necessary to avoid.

Parameter	Detector Model <b>HH04-S1337</b>	Notes
Active area [mm <sup>2</sup> ]	49	
Spectral range [nm]	360-950	
Spectral responsivity [mA/mW]	0,35-0,7	Depends on wavelength, almost linear up to 950 nm
Quantum efficiency	0,8-0,97	Incl transmittance
Calibration relative uncertainty [%]	0,5	Responsivity calibration
Maximum optical power density [mW/cm <sup>2</sup> ]	5	
Full field of view [°]*	10	
Optical path length in the device [mm]*	49	Distance from the first reflection to the last reflection - 35 mm
Maximum declination between incoming and transmitted beams [°]	0,5	
Maximum transmittance [% of incoming beam]**	12	@360 nm, depends on polarisation
Minimum transmittance [% of incoming beam]**	0,2	@950 nm, depends on polarisation
Spatial uniformity of the responsivity [%]	±0,1	Scanned @ 632,8nm
Spatial uniformity of the transmittance [%]	±1	Scanned @ 632,8nm
Dimensions (approx):*		
Diameter [mm]	60	Dimensions and type of electrical connector upon customer specifications
Length [mm]	42	
Weight (approx)[kg]	0,2	

\*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