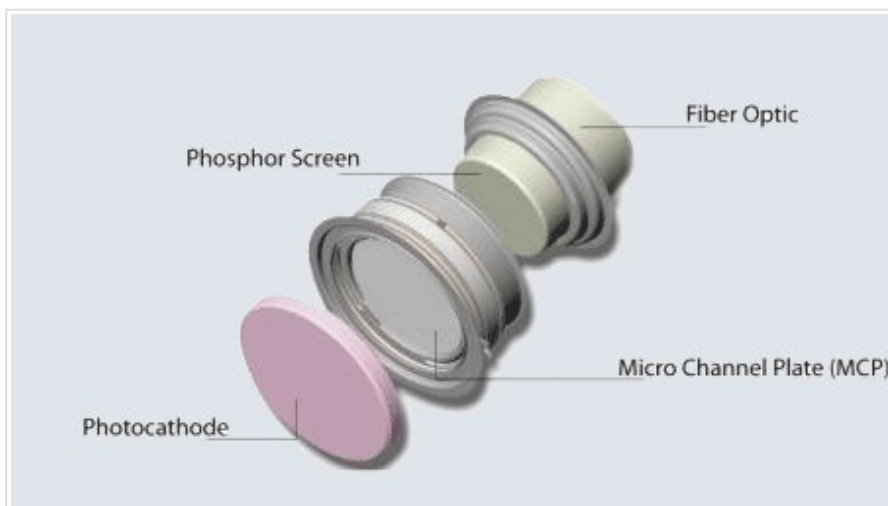


How does an image intensifier work?

An Image Intensifier is a vacuum tube that amplifies a low light-level scene to observable levels. The object lens collects light and focuses it onto the Image Intensifier. At the photocathode of the Image Intensifier the incoming light is converted into photo-electrons.



These photo-electrons are accelerated in an electric field and multiplied by a Micro Channel Plate (MCP). An MCP is a very thin plate of conductive glass containing millions of small holes. Visualisation of image intensifier with Micro Channel Plate

An electron entering a channel strikes the wall and creates additional electrons, which in turn create more electrons (secondary electrons), again and again. Subsequently the highly intensified photo-electrons strike the phosphor screen and a bright image is emitted that you can see.

PHOTONIS produces a variety of different Image Intensifiers suited for applications running from X-rays to the Near-Infrared wavelength band. The application determines which type of input window and photocathode should be used.

More about the principles can be found at [How Stuff Works](#).

 [Image intensifier animation](#)

Laatste update op 18-02-2010 door Hub Goertz.

[Ga terug](#)