Mikrotron introduces first High-Speed Machine Vision Camera with Fiber Interface

EoSens 3FIBER combines high data rates with cable lengths up to 300 meters

Unterschleissheim, 18 July 2017. Mikrotron introduces the first high-speed machine vision camera with a fully integrated fiber solution. The fanless 3 megapixel camera EoSens 3FIBER is capable of transmitting data up to a distance of 300 meters and runs up to 566 frames per second which are transmitted through the fiber interface. Based on a full resolution of 1,696 x 1,710 pixels the frame can be reduced continuously and allows frame rates up to 225,000 at smaller ROIs. The compact and robust MTP/MP connector ensures that the camera does not disconnect even during fast and sudden movements. The thinness of each individual fiber allows bundling all fibers into one cable that transmits the entire data.

“Fiber transmitters have long become standard in the telecommunication and IT industries where the technology has been proved to be reliable. Through this, also costs for fiber solutions have gone down significantly in the past years and we believe it is the right time to introduce this communication instrument finally to high-speed machine applications”, says Max Scholz, Strategical Marketing Manager at Mikrotron and adds: “Another great advantage of the cheap and thin high-speed fiber cables over existing copper-cablings is that while they solemnly transmit light they are entirely spurious impulse independent and can be applied even in critical environments where interfering impulses occur.” An additional benefit is the camera’s ultra-slim design. At a size of 80 x 80 x 58 mm with c-mount adapter the camera can be integrated easily into existing production lines, machinery or moving equipment.

Compared to copper-based solutions the overall system costs of the fiber solution are comparatively low due to lower cable price per meter and the fact that the fiber interface is both integrated in the frame grabber and the camera. In order to exploit the full capacities of the new fiber high-speed solution the camera can be equipped with a fiber grabber from KAYA Instruments.
The whole set of features makes the camera ideal for all application fields where high data/frame rates in connection with long cables are needed such as inspection tasks in industrial processes or in the transportation sector. The camera is also best choice for application areas with possible electromagnetic interference, as well as to operate multi-camera applications where several cameras need to operate synchronously over long distances. Possible applications include for instance inspection of train axes, tires and overhead cables in transportation, various production inspections in industry such as automotive, and even recording/monitoring of ballistics and missile launches.

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