

New pyrometer series CellaCast PX with cutting-edge IO-Link interface technology

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KELLER ITS



Today's demands on the mechanical, forming and machining properties of foundry products have increased significantly in recent years. This is due both to the complexity of the components and to the objective of saving material and weight. In addition, the market is being flooded by low-cost suppliers. Efficient production in the foundry sector only possible by focusing and specializing on high-quality products. This, however, requires that demands on quality are defined, checked and adhered to from the raw material through to the entire production process. Especially the prescribed temperature of the liquid metal when pouring into the mould must be ensured.

The optical temperature measuring method with pyrometers has meanwhile established itself in steel mills and foundries. For this purpose, KELLER Infrared Temperature Solutions - who is one of the innovative leading companies in the field of optical temperature measurement - has developed a unique measuring method with the CellaCast measuring system. By means of a CSD (Clean Surface Detection) function and a rectangular measuring field, the pyrometers are able to filter the correct temperature of the liquid steel and iron even with slag and oxide on top of the surface.

The measuring system is used to monitor continuously the temperature in the runner of blast furnaces or cupola furnaces. At automatic casting machines, the temperature of each production part is detected and recorded at the critical process point, i.e. when filling the mould. Faulty production parts can be sorted out directly or the casting process can be stopped immediately when reaching the minimum permissible limit temperature.

The CellaCast System can be integrated into the plant control system or can be used as stand-alone solution to display the measured values with the number and analysis of the production parts on a PC and save them automatically in a database.

As a novelty, KELLER ITS presents the CellaCast PX measuring system with the cutting-edge IO-Link interface technology. When specifying the IO-Link interface in accordance with IEC 61131-9, particular emphasis was placed on standardization, operational safety and simple hardware and software commissioning and cabling. Therefore, IO-Link is rightly called the industry's USB interface for controlling

machinery and equipment. Several measured values, diagnostic information for demand-oriented maintenance, information on operating states or fault messages can be transmitted in parallel via the digital interface. It is also possible to dynamically adapt the device parameters with the PLC to the material during operation via the interface.