

Possibilities by separating data collection and evaluation in separate units

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Different quality requirements demand different technical solutions, depending if cracks, material mix-ups or different electrical conductivity should be detected. With the use of Eddy Current, different material properties can be identified in a reliable and economical way since decades, however setting up these equipment by using the correct frequencies, phase angles, filters, etc. and maintaining it to ensure constant results necessitate skilled experts with different and extensive background knowledge. Industry 4.0 and increasing labor expenses even in low cost countries, where most of the production facilities are being relocated require price competitive, easy to use and flexible equipment without compromising in reliability and accuracy. By strictly separating collecting the signals with a corresponding hardware and evaluating the same using different software and sensors, depending on the to be tested part, the test system will be very flexible. Enabling the collecting of signals in an own separate hardware also allows the user to place the "data grabber" very close to the to be tested object and test with very high frequencies up to 20 MHz for close surface defects as the distance between sensor and hardware can be limited for low interference. The connection to the PC with the corresponding software can be realized by conventional Ethernet connection with very high speed, so the evaluation software transfers the collected signals into readable information about the test object in real time. Thanks to the own evaluation software, much more information can be generated, displayed, uploaded or stored than just OK / NOK. Just according to the intention of industry 4.0.