Checking the ovality of pies
(Slave pointer function)

A measurement-related feature of the **PT64** diffusereflection laser triangulati on sensors from ipf electronic is the so-called slave pointer function, which is available through the analog outputs of the device using the software. The utility of this special function is illustrated using the specific application example of a pipe-drawing plant, which needs to check the ovality of pipes with a specific diameter.

The „MIN-MAX" slave pointerfunction is activated using the free configuration soft ware for preparing the ovality check. For the check, the pipe placed under the sensor is rotated 360°, which is reported to the **PT64** through a digital switching signal at signal input 1. During the time period in which this control signal is present, or for one complete revolution of the test part or pipe, the diffuse reflection laser sensor continuously gathers measured values. A maximum and minimum value is determined from the detected measuring range after the disappearance of the control signal at input 1, and then the difference between the minimum and maximum value is output through the analog output. The difference determined for the test part effectively represents the measurement of the ovality.

The analog/difference signal is transmitted to the higher-level control unit and evaluated there. If the signal is so big that it exceeds the range for the permitted maximum ovality, the pipe in question is rejected as scrap. Before the next pipe is evaluated, the **PT64** receives a switching signal through the second digital control input which deletes the last generated diff erence value.

Thanks to the special slave pointer function for the **PT64**, the pipe-drawing plant is now able to check the ovality of all pipes with an uniform diameter very easily, conveniently and above all consistently.

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