

Calibrating level measuring instruments



Calibration rig for level measuring instruments

KROHNE is not only a market leader in the calibration of flowmeters, it also has state-of-the-art calibration equipment for level measuring instruments. KROHNE operates systems for both radar and TDR measuring instruments which offer high accuracy, reliability and efficiency. The calibration process is to a large extent automated and is performed on calibration lines of over 30 meters long in some cases. Extensive safety measures ensure that the automatic measuring slide does not endanger operating staff and that external influences do not distort the measurements.

Calibration using the example of TDR level measuring instruments

TDR level measuring instruments with single or double rod or cable probes can be calibrated on a 29m track with two lines. Whilst calibration is underway on the right-hand line, the next instrument can be set up on the left-hand line. A member of staff fits the appropriate aluminum reflective plate to the slide, clamps the probe and starts the calibration process. The measuring slide automatically travels to the desired number of reference points, closes the semi-circular reflective plates and performs a measurement. The plates then open again and the slide moves to the next measuring point. Four points are measured as standard, compared with the reference values of a laser measurement and the instrument is calibrated accordingly. The values are then measured once more to check that they are within the tolerance range. The calibration process also includes a stability test in which a certain plate position is continually measured for one minute. The deviation of the measuring instrument must lie within the tolerance range. This system offers an accuracy of 0.2mm.

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