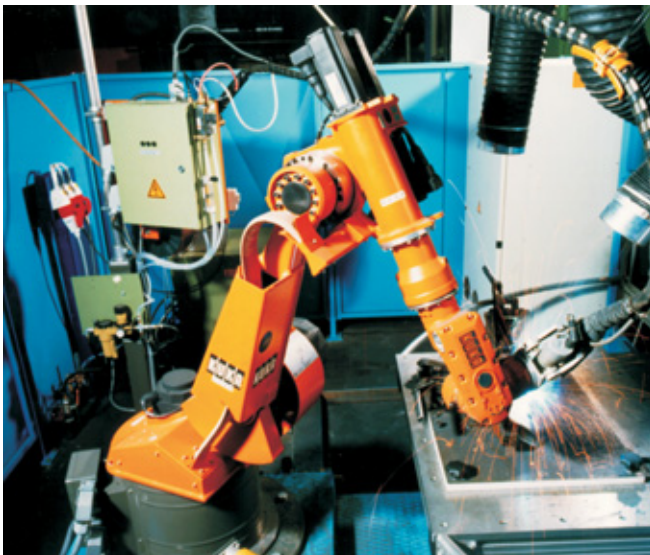


Calibrating robot axes

Industrial robots have become indispensable in modern production facilities due to their reliability and speed. During setting up and also at regular intervals within the scope of quality assurance, the robot axes must be adjusted. Here, electronic adjustment probes have long substituted mechanical probes. The measurement probes are mounted on the robot axes and acquire the zero point during the axis rotation using a probe tip. The integral electronics evaluates the probe signal and supplies a switching signal to the robot controller. This provides a definite and reliable adjustment independent of the operator. Another advantage is the reduction of downtimes, because the measurement is carried out very quickly and is automatically passed to the controller.



Pic: KUKA Roboter GmbH

The rugged stainless steel housing ensures a long service life despite the harsh industrial environment. The probe was developed in cooperation with Kuka Roboter GmbH and is supplied as a complete calibration set with connecting lead in a portable case. The adjustment probe represents an essential aid in the reliable operation of robots.

Reasons for choosing the system

- Customer- and applicationsspecific system
- Easy to use
- Robust sensor design
- High dynamic and repeatability

Measurement system requirement

- Measuring range 5 mm
- Speed $20 \mu\text{m/s} < v < 1 \text{ mm/s}$
- Operation time $< 8 \text{ ms}$

The calibrating set consists of:

- KTL-gauging sensor
- Connecting cable, length 5 m
- Screwdriver
- Suitcase

