



This is what real innovation looks like: our Type 5074A digital industrial charge amplifier the first of its kind to use high-speed Ethernet

## The Type 5074A digital charge amplifier: setting the new standard for measurement in the Industry 4.0 era

**Kistler unveils the world's first amplifier for piezoelectric sensors with communication consistently based on high-speed Ethernet. For the first time, this amplifier makes it possible to integrate all sensors into a system with real-time capability, with the added convenience of performing settings by central control.**

Users of the Type 5074A digital charge amplifier can now monitor press-fit, assembly, joining, and others with maximum precision. End-to-end digitization enables the Type 5074A to provide direct communication down to amplifier level. This amplifier also features a host of measurement functions for applications that require integration of dynamic and quasi-static measurements.

### More precise and flexible measurement data

The rugged Type 5074A, with protection class IP67, can also be easily integrated into digital industrial network processes outside of the control cabinet. Up to four piezoelectric sensors can be connected per unit. The analog raw signals measured are forwarded (with interference-resistant transmission) to the control at up to 10 000 bus cycles per second via the EtherCAT, EtherNet/IP or PROFINET protocols. Each of the four channels supplies up to 50 000 measurement values per second, and each one can be individually activated and configured. This flexible design also makes it easy to monitor processes that run acyclically. Further benefits include a wide measurement range and a broad spectrum of measuring functions for every application.

### Maximum control – minimum cost

Implementation of the 5074A charge amplifier more functional. It can be integrated into an existing Ethernet with no need for additional software. Complex and costly cabling for analog and control signals can be eliminated. Configuring the control yields three major benefits for industrial processes: high data security, guaranteed control and maximum flexibility for a vast range of different applications.

### Benefits

- Direct integration of piezoelectric sensors in real time-capable Ethernet systems
- Measurement technology for dynamic and quasi-static processes
- Parameterization via the machine control
- Up to four piezoelectric signals can be digitized per unit
- Individual filtering and scaling of individual sensor signals
- Individual measurement channel control for asynchronous processes

**Kistler Group**  
Eulachstrasse 22  
8408 Winterthur  
Switzerland

Tel. +41 52 224 11 11

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