**Press Release**

**New: Inline amplifier for C9C and U9C miniature force sensors**

User-friendly and space-saving measurement chains for forces ranging from 50 N to 50 kN

**Darmstadt, May 2020**

The C9C and U9C force sensors from HBM are now also available with a permanently connected inline measuring amplifier. This design makes it much easier to set up the measuring chain, as there is no more soldering or crimping and no need to configure a measuring amplifier. A current-output (4—20 mA) and a voltage-output (0—10 V) version are available, so users can continue working with existing hardware. The measuring chain has been calibrated as a unit.

The new, low-noise electronics is optimally matched to the miniature force sensors. Like the sensors, the amplifier modules meet the requirements of the IP67 degree of protection. This enables the use of the force transducers with inline amplifiers under harsh conditions. The new amplifier modules have also been mechanically tested for shock and vibration and meet the same high requirements as the sensors. Since both the housing of the force transducer and the housing of the electronics are galvanically connected, the entire measuring chain operates in a Faraday cage, so that the measurement results are reliable even under unfavorable conditions. The measuring chain has been EMC-tested in HBM's inhouse laboratory.

The U9C and C9C series sensors are particularly well-suited for fast force measurements, so the new amplifier modules boast 2 kHz rated bandwidth. The amplifiers’ accuracy class (0.15) also matches that of the miniature force transducers (0.2). The measuring chains can be calibrated in the HBM calibration laboratory in compliance with DKDR3-3 or the ISO376 standard to guarantee compliance with the requirements of quality standards and potential audits.

Refer to the provided documentation to find out which output signal in V or mA is the output for the respective measured force. To facilitate parameterization of the next stage, the documentation also contains information on the measurement chain sensitivity and the setting up of two-point scaling.

For more information, please visit

https://www.hbm.com/en/3928/c9c-miniature-force-sensor-for-compressive-forces/

https://www.hbm.com/en/3926/u9c-miniature-force-sensor-for-tensile-and-compressive-forces/

**About HBM Test and Measurement**

Hottinger Baldwin Messtechnik GmbH (HBM Test and Measurement, founded in Germany in 1950) is today the technology and market leader in the field of test and measurement. HBM’s product range comprises solutions for the entire measurement chain, from virtual to physical testing. The company has production facilities in Germany, USA, China, and Portugal and is represented in over 80 countries worldwide.

For more information, please visit [www.hbm.com](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.hbm.com%2F&data=02%7C01%7Cmelanie.klingelmeyer%40hbkworld.com%7Cf42e7ef6b63446cfc14808d7ecee4bcc%7C6cce74a3397545e09893b072988b30b6%7C0%7C0%7C637238380535015826&sdata=MhRNqBH%2B%2Fa6Lkcb%2FS2yPGgDRWIA41ELunScn3roG9vc%3D&reserved=0)

**About HBK – Hottinger, Brüel & Kjær**

HBK – Hottinger, Brüel & Kjær, home to the HBM Test and Measurement and

Brüel & Kjær Sound and Vibration brands, is a subsidiary of UK-based Spectris

plc ([www.spectris.com](http://www.spectris.com)), which has annual sales of £1,5 bn and employs

approximately 9800 people worldwide.

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