

EC79/2009 APPROVAL OF PRESSURE TRANSMITTERS FOR HYDROGEN APPLICATIONS

Hydrogen is one of the energy carriers of the future and is becoming increasingly important. ADZ NAGANO has been offering pressure transmitters for hydrogen applications for quite some time. The generation, storage and transport of hydrogen – regardless of its state of aggregation – poses special challenges for all materials in contact with this medium.

In recent months, our **product group SH2** has been successfully tested and inspected as part of a product approval process according to European Directive EC79/2009. This approval seals the quality and safe use of our hydrogen-specific sensor technology for numerous applications for measuring and monitoring hydrogen.

These pressure transmitters can be used in hydrogen storage systems, for example, of nominal pressures up to 1000 bar. A special alloy of the sensors ensures the corresponding pressure strength and service life.

Of course, applications in lower pressure systems (up to 300 bar) and direct use in fuel cells or low-pressure systems of reactors or reformers of pressure ranges below 20 bar are also unproblematic. ■



PRESSURE TRANSMITTER WITH USB PORT

Following numerous customer requests, ADZ NAGANO has developed a pressure transmitter with a serial interface. With direct connection of a USB cable, it is ideally equipped for numerous applications.

Thanks to the USB type A plug, this transmitter can be easily connected to any standard computer. It is detected by generic drivers of the respective computer operating system and no special drivers are required – plug and play.



With the help of simple commands, data can be read out from the pressure transmitter, measured data can be logged and processed further. Thus, it is possible at any time to acquire and log very accurate measurement data quickly and easily via simple macros or a terminal.

The data can be transferred in a special measuring mode in a rhythm of ~2ms. ADZ NAGANO pressure transmitters with USB are available for all common pressure ranges within the limits of a few mbar and 5000 bar, both in relative and absolute pressure versions. ■

ADZ NAGANO – INCREASINGLY ACTIVE IN AVIATION

New end customer Dassault Aviation

At the end of 2018, ADZ NAGANO launched a new development project for the French aircraft manufacturer Dassault Aviation S.A. The project ranges from development via qualification up to series production of pressure transmitters over several years for the air management system of the business jet "Falcon 6X" (F6X).

Aviation projects are usually very complex and have many customer-specific requirements. At the beginning of an aviation-specific series production, there is always a long development and test phase, including the verification that all requirements are met.

Our pressure transmitters are used in newly developed systems for air treatment and air conditioning provided by system supplier Liebherr-Aerospace Toulouse. The development and qualification



phases have been successfully completed and the first serial parts are currently being delivered. ■

ADZ NAGANO – THE FUTURE OF THE INDUSTRY FIRMLY IN VIEW

ADZ NAGANO has long been involved in so-called joint projects in cooperation with other companies and partners from science and research. In this way, our engineers and technicians recognize trends in the field of sensor technology at an early stage and actively and innovatively shape the future of this industry by optimizing and innovating our product portfolio. ADZ NAGANO is currently supporting two research projects promoted by public project sponsors.



The *MoNaUhr* project is testing the use of so-called quantum dots in a multifunctional clock. It integrates sensory and actuator components in order to investigate the energy-autonomous operation of the watch

in interaction with integrated generators. ADZ NAGANO is responsible for various subtasks in the development of system electronics, pressure sensors and energy management.

For more details see: <https://www.adz.de/monauhr.html>

In the *TRIMIKAD* project in cooperation with the Fraunhofer Institute for Ceramic Technologies and Systems (IKTS), the use of printable 3D structures is being researched alongside the use of special ceramic substrates. Furthermore, the use of lead-zirconate-titanate structures (PZT) for signal generation is being tested. A newly developed evaluation electronics and associated software is used to evaluate the suitability as a sensor basis.

Further details can be found under the following link:

<https://www.adz.de/trimikad.html> ■



ADZ NAGANO – GROWTH NEEDS SPACE

The products of ADZ NAGANO enjoy worldwide recognition and increasing demand. The production capacities have reached their limits, and since the beginning of the year, work on the extension building has been in full swing. In order to create space, the nitrogen tank was first relocated and the media lines were newly laid. The packaging storage and parking spaces were also relocated.

Concreting works have already been completed, and roof and façade work as well as interior outfitting are currently following. Everything is progressing well and on schedule. The new part of the building accommodates parts of the production and the material store. The expansion of the production capacities increases the flexibility to be able to meet and implement customer wishes and requirements even better in the future. Completion is scheduled for autumn 2020. ■



2020/2021 FAIR DATES* FOR ADZ NAGANO



AIRTEC 2020 Munich
12 to 14 October 2020, Hall H2, Stand B05



SPS 2020 Nuremberg
24 to 26 November 2020, Hall 4A, Stand 646



Hannover Messe 2021
12 to 16 April 2021



InnoTrans 2021 Berlin
27 to 30 April 2021



Achema 2021 Frankfurt
14 to 18 June 2021, Hall 11, Stand E35



Paris Airshow 2021
21 to 27 June 2021

We look forward to seeing you!

Even though the current pandemic has affected numerous trade fair appearances and visits, we remain confident and are planning for the adjacent dates.

We are always available for individual consultancy. Convince yourself of the many solutions and possibilities our portfolio offers.

* Subject to change

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ADZ NAGANO GmbH
Gesellschaft für Sensortechnik
Bergener Ring 43 · D-01458 Ottendorf-Okrilla

Fon: +49 (0)35205-59 69 30
Fax: +49 (0)35205-59 69 59
www.adz.de

