

CAN Newsletter Online

SPS 2022

First impressions of CAN at the fairground

From November 8 to November 10, the SPS 2022 exhibition for smart and digital automation in Nuremberg (Germany) takes place after two years of break due to Covid-19. About 1000 companies and a lot of CAN-related products are part of the fair.



CiA shows CANopen products of their member companies on the product panel wall (Source: CiA)

At SPS Smart Production Solutions 2022, the automation industry presents products, solutions, and the latest information about smart and digital automation. CAN in Automation (CiA) has been present at the SPS since the beginnings in Sindelfingen (Germany) and is also part of it this year. In hall 5, booth 410, the organization presents CANopen products of their member companies on the CiA product panel wall. CiA's aim is to provide an unbiased platform for future CAN-related specifications and standards.

Exhibition motto: Bringing automation to life

About 1000 companies show their latest innovations at the exhibition under the motto "bringing automation to life". Of course, CAN and CANopen are also part of this. For example, Nord Drivesystems presents its frequency inverters. The Nordac PRO SK 500P offers a CANopen interface supporting the drive profile CiA 402. The CANopen interface is equipped with a 4-pole screw terminal as regular. Alternatives are optionally available (CANopen double terminal etc.).



The SMX.igs-e provides the inclination data via a CAN interface (Source: STW)

Communication on machines, and between machines, is becoming increasingly important in agriculture, construction, municipal, and forestry equipment. This is why STW presents communication and automation solutions for mobile machines of the future, and services that help integrate them on the machine, explained the company. They show components suitable for setting up AI-supported (artificial intelligence) and semi-autonomous systems with "smart" sensors, such as the SMX.igs-e inclination sensor, the latest control platforms based on multi-core processors and the TCG-4 communication module. Both products feature CAN. The inclination sensor transmits the measurement data to the control system via a CAN, CANopen, or J1939 interface. Protocol and measuring range can be freely selected. The TCG-4 provides up to four CAN interfaces for machine communication.

JVL from Denmark, producer of integrated servo and stepper motors, also shows several of its CANopen products. The company announced an improved implementation of the CANopen protocol for responder operation. All motor functions are available in CANopen through gateway objects with selectable data rate up to 1 Mbit/s. CiA 301 and CiA 402 are supported.

On occasion of the SPS, Maxon Motor launches five drives. One of them is the Micromacs6 which the company showcased there. The programmable motion controller is designed to synchronize several axes in real time. This commander controller is available with an optional Bluetooth service and support interface for the first time. It has no power stages, and autonomously controls up to six axes. The controller has two independent CAN interfaces. It is suitable for equipment engineering and is compatible with Escon and Epos power stages.



The Micromacs6 from Maxon Motor with two CAN interfaces (Source: Maxon Motor)

Copley Controls, a division of Analogic Corporation, delivers motion control solutions to a range of industries and applications including robotics, automated assembly, material handling, test systems, life sciences, and semiconductor equipment. At the SPS, the company shows the Accelent Nano family of servo drives with CANopen for requirements of robotics, AGV, warehouse automation, and industrial machinery.

Actronic Solutions, which btw supplies the products from Copley Controls and others, is also part of the exhibition. Actronic supplies for example CANopen servo amplifiers, CANopen stepper motor controllers as well as several CAN cards, CAN converters, and CAN data loggers.

TTControl's rugged operator interface Vision 3 has been developed for mobile machinery. Today, increasing amounts of data from sensors (sensor fusion), actuators and cameras must be processed to manage complex working tasks, said the company. Assisting the



The IP65-rated displays can withstand dust and water ingress as well as extreme temperatures and are resistant to shocks and vibrations, explained the company (Source: TTControl)

operator is becoming more important while at the same time machinery needs to operate more efficiently to increase productivity. Mobile machinery must be equipped for (semi-) autonomous operational processes to enable the change in the role of the machine operator from manual to supervising tasks, the company continued. This results in the need for higher bandwidths and CPU performance. The Vision 3 family includes Vision 312 and the advanced derivate Vision 312Plus. Vision 312 comes with two CAN interfaces and Vision 312Plus with four CAN interfaces while one is compliant to Isobus. The displays come with a 12,1-inch LCD screen.

This article shows just a small selection (first impression) of products found on the exhibition, of course there are more.

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