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Meidensha Corporation

To members of the media

## **Meiden launches an industrial controller, $\mu$ PIBOC DS100, on the market**

### **High-performance, compact-sized product capable of delivering AI-assisted image processing**

Meidensha Corporation (Meiden) recently developed the  $\mu$ PIBOC DS100, an industrial controller designed for image processing. The product was launched on the market in May 2024.

As digital transformation (DX)-driven automation advances in various manufacturing operations, it is becoming increasingly important to ensure workers' safety while production equipment is being operated. This product is primarily designed to analyze people's movements and conduct special analysis. It can process image data captured by multiple cameras. By utilizing an optional<sup>\*2</sup> AI accelerator, the system can detect individuals and oversee/control devices based on AI inferences.

The product can improve workplace safety by identifying intrusions into hazardous areas. It is expected to enhance production processes in factories by leveraging data concerning people's movements. Additionally, its compact size enables space-saving and offers flexibility in installation conditions.

#### ■ Examples of the value the product offers include:

- Facilitating the utilization of client data through analysis of people's movements
- Improving production capacity by monitoring and controlling diverse production equipment, such as transfer robots
- Enhancing worker safety by detecting intrusions into hazardous areas

#### ■ Features

1. One of the smallest products<sup>\*2</sup> in the industry

The exterior case of the product is one of the smallest in the industry, with a

width of 191 mm, a height of 8 mm, and a depth of 227 mm. Despite being equipped with a high-performance central processing unit (desktop model CPU) that consumes 65 watts of power, it is exceptionally compact. This was made possible by implementing an efficient cooling structure, which was achieved through strategic placement of heat-emitting components. The product also offers the flexibility of vertical installation, enabling space-saving solutions that match clients' equipment layouts.

2. Equipped with diverse interfaces

This product comes equipped with 10GbE, enabling the rapid transmission of large volumes of data, such as videos and images, as a standard feature. It also includes legacy interfaces like VGA and RS-232C. Storage options such as M.2SSD and CFexpress are available.

3. High-speed processing and low power consumption

The product features the Core i7-13700E<sup>\*3</sup>, a 13<sup>th</sup>-generation Intel processor, as its CPU, enabling high-speed processing capabilities. It also offers the option of integrating the Hailo-8<sup>\*4</sup> processor as an AI accelerator, achieving up to 26 tera operations per second (TOPS). When equipped with the AI accelerator, the product can process data quickly and draw inferences at remarkable speeds while consuming less power compared to GPU-equipped systems.

Meiden is dedicated to supporting clients in promoting the use of data, achieving labor-saving benefits, and enhancing worker safety through the delivery of this product.

\*1: Technological support may be provided by a Meiden partner company when utilizing apps integrated into the product.

\*2: Based on a Meiden study as of May 2024.

\*3: "Core" is a registered trademark of Intel Corporation.

\*4: "Hailo" is a registered trademark of Hailo-Werk Rudolf Loh GmbH.