

## Launched EDX-10, a DIN connector with built-in digital amplifier for solenoid proportional valves

### 1. Trends in the Market and Our Combination

In the field of manufacturing, for the purpose of productivity and efficiency improvement, the need for digitization and space saving of facilities is increasing, and also for hydraulic equipment, the demand for electronically controllable solenoid proportional valves is increasing.

We introduced the solenoid proportional valve in the 1960s, and developed and marketed its control amplifier in-house. This has led to a wide variety of users and we have responded to the needs.

With regard to digital control amplifiers, ERD-10 was launched in 2019, and ERD-20 was launched in 2021, which is compatible with the industrial networking Ethernet/IP. In recent years, further space saving and with a built-in digital control amplifier that can be directly mounted on a proportional valve to meet the need for higher efficiency develop and launch DIN connector “EDX-10” to contribute to further productivity improvement of users.

### 2. Outline of “EDX-10”

#### (1) Target markets and needs

Industrial machinery such as machine tools and forging machines

#### (2) Features

##### ① Space saving and reduce of installation man-hours

Digital amplifier unit, which used to be placed separately, was downsized to approximately one-third and built into DIN connector of the solenoid proportional valve by reducing the number of wires, space is saved and the number of man-hours for installing cables is reduced.

(Reference: Size) ERD-20:110 mm×92 mm×30.4 mm

EDX-10:73.5 mm×34 mm×39 mm

##### ② Pressure sensor feedback control

Hydraulic pressure is measured by the pressure sensor, and the driving current of the proportional valve is automatically adjusted equipped with pressure sensor feedback control. Due to oil temperature and override characteristics suppresses pressure changes and realizes high control performance despite its ultra-compact size.



EDX-10 itself

##### ③ Easy setting from PC

By introducing a special software to PC and connecting it with a USB cable, easy setting, operation, and instruction are possible. For the settings of the second and subsequent amplifiers in a specific data file it can be completed by copying and drastically reduced the setting man-hours.

##### ④ Applicable to industrial networks

Compatible with fieldbus "Modbus/RTU" and various information and instructions are digitized to hydraulic equipment promote IoT of factories by enabling communications and linking them to PLC of customers.

##### ⑤ Compliance with Overseas Safety Standard

Compatible with CE (Europe) and UKCA (United Kingdom) international safety standards.

### 3. Launch Date and Sales Target

- (1) Launch date: Sep. 2022
- (2) Price: Open Price
- (3) Sales target: Aim to sell 200 units per month by fiscal 2024.

### 4. New product inquiries

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Examples of equipping proportional valves