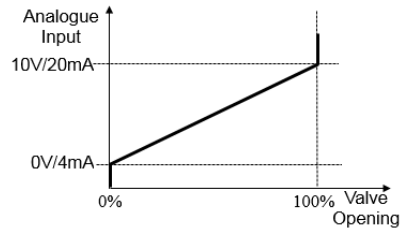


DXD is designed for controlling the electronic expansion valve which is driven by a uni-polar stepper-motor, particularly the Emerson Flow Controls' uni-polar valves RX1S, DX1, DX2, DX3, RX3 and so on. The DXD is able to drive the stepper motor by converting a 0~10VDC or 4~20mA analogue input from the master controller to the stepper pulses, which can be controlled manually as well. The key features are listed as below:

- Drive one 12VDC uni-polar electronic expansion valve
- Accept 0~10V or 4~20mA analogue input
- **Control solenoid valve by relay dry contact, relay is turned on when powered on**
- Human-machine interface DXHMU is available for manual control of the valve and can show the real-time steps. (DXHMU is optional, which can be ordered separately)
- Control the electronic expansion valve and set parameters by RS485 command. (DXR485 board is required)



### Driven by analogue input:

The DXD can convert a 0~10V or 4~20mA analogue signal or RS485 command to pulses, which finally drives the stepper motor to control the opening of electronic expansion valve like RX1S and DX3. The red LED will be on when the valve is operating. The green LED indicates the power supply status of DXD.

### Manual control:

With the plug-in interface DXHMU, it is possible to control the valve manually. The 4-digit eight-segment LED displays the opening steps of valve, and there are also 4 buttons below the eight-segment LED, which features "full open" "full close" "open 1 step" and "close 1 step".

The default mode of DXHMU is designed to be auto-operating, which means controlling the opening by a 0~10V or 4~20mA analogue signal, under the auto mode, the 4th eight-segment LED will be displayed with its decimal de-energized. By pressing and holding the "full open" button for 3 seconds, the DXHMU will be shift to the manual mode, with the decimal of the 4th eight-segment LED powered on. In this mode, it is possible to control the valve manually.

### Input / Output:

Legend	Description
<b>DXD</b>	
E1: 1-4	EEV Output (Pulsing): BLU4-Blue, WHT3-White, BRN2-Brown, BLK1-Black
E1: 5	EEV Output (Common): +12VDC: GRY+ - Gray
SW1: 1-2	2-Bit Dipswitch, Bit2 used for setting maximum steps, and Bit1 is reserved.
E2: 1-2	Analogue Input: 4-20mA Signal 1: 4-20mA, 2: GND
E2: 3-4	Analogue Input: 0-10V Signal, 3: GND, 4: 0-10V
E3: 1-2	Power Supply: 24VAC/DC
E4: 1-2	Relay Output, Dry Contact
<b>DXR485</b>	
E5: 1-3	RS485 Communication: 1: B, 2: A, 3: GND

### Technical parameters:

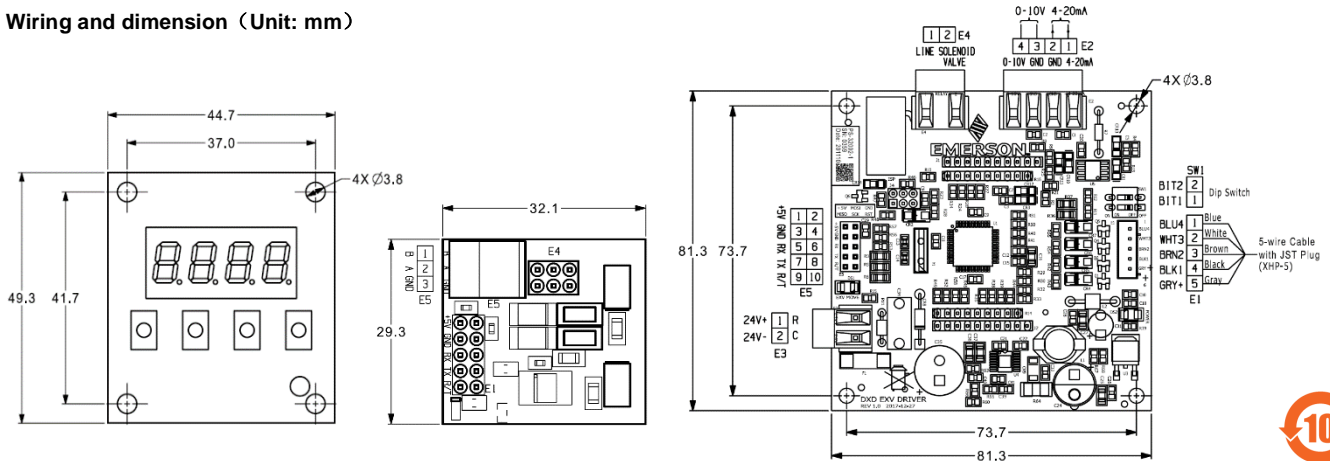
<b>Power Input</b>	24VAC/DC±10%, 50/60Hz	<b>Mounting</b>	Nylon Support Column
<b>Power Consumption</b>	Maximum 25VA	<b>Accessory (Optional): Display</b>	Model: DXHMU
<b>Terminal Block E1</b>	5-pin JST plug (XHP-5)	<b>Temperature Storage Operating</b>	-25 ~ +60°C 0 ~ +55°C
<b>Terminal Block E2/E3/E4</b>	Removable Block Cross-section: 0.14~1.5mm <sup>2</sup>	<b>Humidity</b>	20~85%, No Condensing
<b>Analogue Signal Resolution</b>	4~20mA: 0.02mA 0~10V: 0.01V	<b>Weight</b>	70g
<b>Protection</b>	IP 00	<b>Compatibility</b>	EMC, RoHS

### Wiring, PCN and dimension (Unit: mm)

PCN	Product	Note
098311	Driver board DXD-500, with RS485 board DXR485	Maximum steps: 500
098312	Driver board DXD-650, with RS485 board DXR485	Maximum steps: 650
098313	Display DXHMU	Order separately

Note: DXR485 is a part of DXD 098311 and 098312. If user doesn't use communication function, DXR485 can be taken down.

### Wiring and dimension (Unit: mm)



### Names and Contents of the Hazardous Substances in the Product

Technical data are correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Emerson directly stating the information required.

Emerson cannot be held responsible for errors in capacities, dimensions, etc., stated herein. Products, specifications and data in this literature are subject to change without notice.

The information given herein is based on data and tests which Emerson believes to be reliable and which are in accordance with today's technical knowledge. It is intended for use by persons having the necessary knowledge and skill, at their own discretion and risk. Our products are designed for fixed applications. For mobile applications, failures may occur.

This table is prepared in accordance with the provision of SJ/T 11364.

\*: Assembled with PCB and components (diode, resistor, voltage regulator, connector etc.)

O: Indicate that said hazardous substance contained in all the homogeneous materials for this part does not exceed the limit requirement of GB/T 26572

X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572; but the content of such substance is exempt from China RoHS restrictions

Part Name	Hazardous Substance		
	Pb	Hg	Cr +6
PCB assembly*	X	O	O
Package and accessories	O	O	O