

Universal Driver Modules Series EXD-U02

Stepper motor valve driver specifically designed for the Emerson EX and CX Series of electrical control valves in applications such as:

- Capacity control by means of hot gas bypass
- Evaporating pressure regulator or crankcase pressure regulator
- Hot gas flow such as heat reclaim
- Condensing pressure regulation and liquid duty
- Refrigerant mass flow control in CO₂ transcritical systems

Features

- Plug and play, no parameter setting
- Valve opening proportional to 4...20mA or 0...10V analogue input signal
- Digital input can be used to force valve closing
- Easy configurable by Dip-switches
- Easy wiring
- Fully tested and ready for operation



EXD-U01

Options

- Uninterruptible Power Supply ECP-024 to automatically close valve after power down

Selection Table

Type	Part No.	Description
EXD-U02	804750	Universal Driver Module
EXD-U01 Contr. Kit	808052	Universal Driver Module with Terminal Kit
K09-U00	804559	Terminal Kit for EXD-U01

* Controller Kit contains terminal kit

Accessories

Type	Part No.	Description
ECP-024	804558	Uninterruptible power supply for up to 2 drive modules
K09-P00	804560	Electrical terminal kit for ECP-024
ECT-323	804424	Transformer 25VA
ECT-623	804421	Transformer 60 VA 24V/230V AC – DIN-rail mounting



K09-U00



ECP-024



ECP-024



ECT-323



ECT-323

Function

The driver module EXD-U02 requires an analog input signal of 4...20 mA or 0...10 V. The output is the closing/opening of EX/CX valve series and consequently the control of liquid or vapor refrigerant mass flow in accordance with the analog input. The universal driver module can be connected to any controller which can provide a 4...20 mA or 0...10 V analog signal. This gives extreme flexibility to system manufacturers to use any desired controller and achieve different functionalities. The universal driver module keeps the valve at fully close position when the input signal is 4 mA or 0 V. The valve will be fully open at 20 mA or 10 V.

Optional uninterruptible power supply ECP-024

The optional uninterruptible power supply ECP-024 contains a rechargeable lead-acid battery, which provides enough energy to close the valve in case of power loss. ECP-024 can be connected to two EXD-U01 Driver Modules for closure of up to two valves.

Technical Data

Supply Voltage	24 VAC ±10%, 50-60 Hz Note: 24 VDC supply voltage can be used but it results to lower MOPD and it needs to be verified by system manufacture.
Supply current	to be protected by a 1.0 A external fuse
Power consumption	10 VA in conjunction with EXV
Protection Class	IP20
Weight	~ 800 g
Marking	CE

Analog input signal Burden	4-20 mA 364 Ω
Analog input signal Impedance	0-10 V 27 kΩ
Digital input	24 VAC ±10%, 50-60 Hz 24 VDC ±10%
Connector	Screw terminals for wire size 0.5-2.5 mm ²
Mounting	DIN rail mounted
Housing	Aluminum

Optional Uninterruptible Power Supply ECP-024

Backup battery type	Lead acid gel rechargeable battery
Number of backup batteries	2, each 12 VDC, 0.8 Ah
Supply voltage	24 VAC ±10%, 50-60Hz
Output voltage, UB	18 VDC
Number of outputs to drivers	2
Marking	CE

Connection	Screw terminals for wire size 0.5-2.5 mm ²
Mounting	DIN rail mounted
Protection class	IP20
Housing	Aluminum