

# Input Extension AEI-4UI

The AEI-4UI is an accessory for X2 controllers to extend 4 physical inputs. Each input may be setup through jumpers as input for a passive temperature sensor (NTC10kΩ), a 0…10 VDC or 0…20 mA signal.
The AEI-4UI is connected to the X2 controller through the OP-bus connection. Should an operation terminal be required, it must then be removed from the X2 controller and plugged instead into the AEI-4UI.

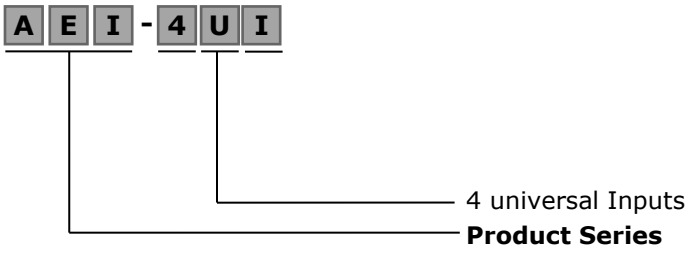
## Applications

- Air Handling Unit (AHU)
- Input extension for any X2 controller

## Functions

- 4 additional universal inputs
- suitable for devices with X2 operating system
- no additional power supply necessary, as this is provided directly by the controller

## Name




## Types and Ordering

| Product Name | Product No. | Description |
|---|---|---|
| AEI-4UI | 40-50-0138 | Input extension for X2 operating system |


© Vector Controls LLC, USA
www.vectorcontrols.com

# Technical specifications

## Important safety instructions

This device serves as an accessory to a universal control device. It's not a safety device! If equipment failure endangers people's lives and/or property, it is the responsibility of the customer, installer and system integrator to add additional safety devices to prevent a system failure caused by such equipment failure. Failure to comply with specifications and local regulations may result in damage to equipment and endanger life and property. Tampering with the device and improper use will void the warranty.

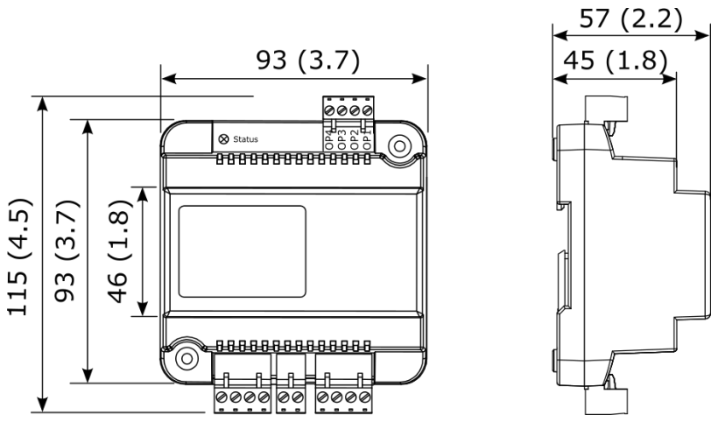
| | | |
|---|---|---|
| **Power supply** | Power requirements | Power supplied by X2 controller |
| | Power consumption | Max.0.35W |
| | Terminal connectors | For wire 0.34…2.5 mm2 (AWG 24…12) |
| **Signal inputs** | Universal input | Input jumper set for voltage or current |
| | Input signal | 0...10 V or 0...20 mA |
| | Resolution | 9.76 mV or 0.019 mA (10 bit) |
| | Impedance | Voltage: 74.8kΩ Current: 158Ω |
| | Passive input<br>Type & range | Input jumper set to temperature (RT) or digital input (DI)<br>NTC (Sxx-Tn10): -40…140 °C (-40…284 °F) |
| **Environment** | Operation | To IEC 721-3-3 |
| | Climatic conditions | class 3 K5 |
| | Temperature | 0…50 °C (32…122 °F) |
| | Humidity | <95 % RH non-condensing |
| | Mechanical conditions | class 2M2 |
| | Transport & storage | To IEC 721-3-2 and IEC 721-3-1 |
| | Climatic conditions | class 3 K3 and class 1 K3 |
| | Temperature | -25…70 °C (-13…158 °F) |
| | Humidity | <95 % RH non-condensing |
| | Mechanical conditions | class 2M2 |
| **Standards** | Degree of protection | IP30 to EN 60 529 |
| | Pollution class | II (EN 60 730-1) |
| | Safety class: local regulations must be observed! | III (IEC 60536) |
| **General** | Material | Fire proof ABS plastic (UL94 class V-0) |
| | Dimensions (H x W x D) | 60 x 93 x 115 mm (1.18 x 3.66 x 3.66 inch) |
| | Weight (including package) | 240 g (8.1 oz.) |

## Product testing and certification

CE Declaration of conformity

Information about the conformity of our products can be found on our website www.vectorcontrols.com on the corresponding product page under "Downloads".

## Dimension, mm (inch)

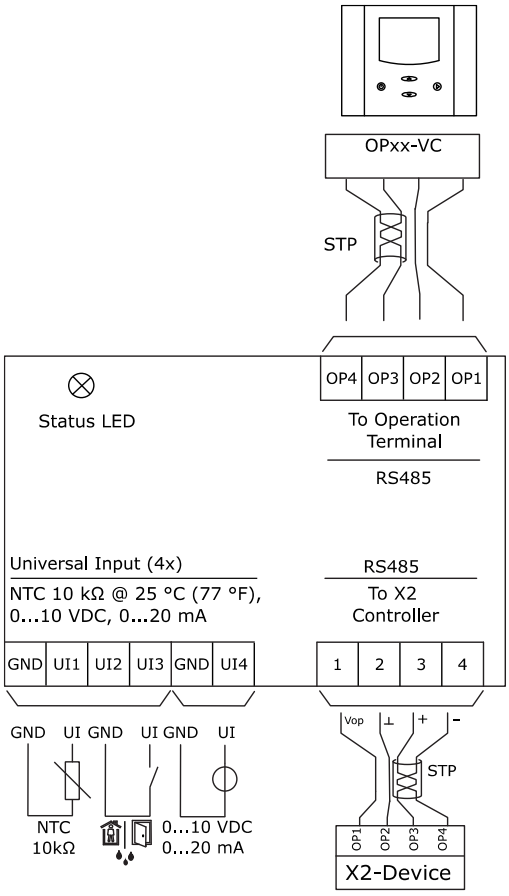


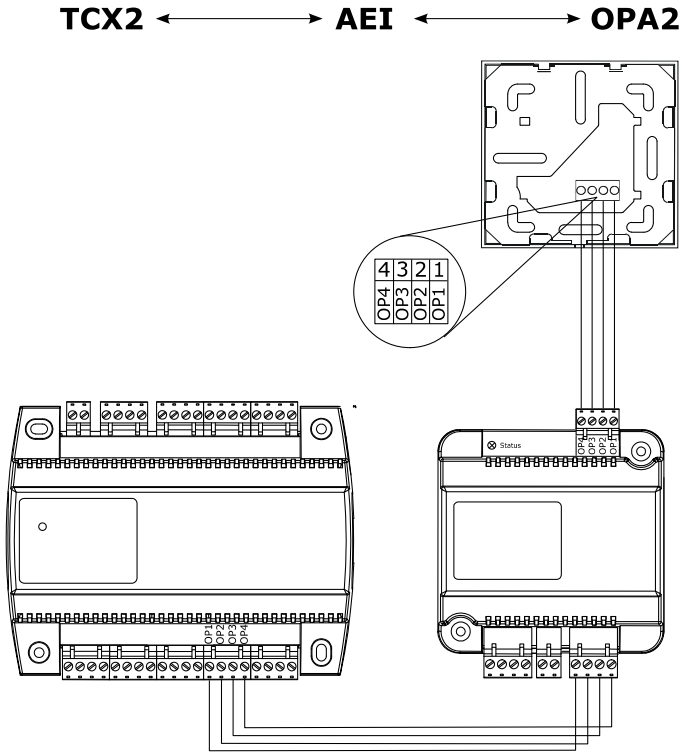

# Installation

See installation sheet no. 70-000724 (www.vectorcontrols.com).


© Vector Controls LLC, USA
www.vectorcontrols.com

## Connection diagram




## Configuration of inputs

The inputs and outputs are configured with jumpers. Jumpers are located underneath the controller.

**UI: Selection of universal input type**

Left position: voltage input (0…10 V)
*factory default*

Middle position: current input (0…20 mA)

Right position: RT or dry contact

| UI1 | | |
|---|---|---|
| 0…10V | 0…20mA | RT / DI |
| ▮ | | |

**UI: Configuration of Virtual Input (VI) of the X2 Controller**

The physical inputs of the AEI are accessed through the virtual inputs of the X2 device. The first virtual input of the X2 device is mapped to the UI1 of the AEI-4UI. The 4th virtual input maps to the UI4 of the AEI-4UI.

The AEI-4UI can only be accessed by X2 devices running firmware version V1.5 and up.

The "signal type" of the virtual input has to be set to:

- 0xu0 = 4: AEI-4UI

The type of the virtual input has to be set to:

- 0xu5 = 1: 0-10V / 0-20mA
- 0xu5 = 2: 2-10V / 4-20mA
- 0xu5 = 3: NTC

## LED-indicators

A status LED is located on the upper left side of the housing. During normal operation the LED blinks briefly once every 5 seconds. If there is an alarm or fault condition it will blink every second.


© Vector Controls LLC, USA
www.vectorcontrols.com

# Smart Sensors and Controls Made Easy!

# Quality - Innovation – Partnership

Vector Controls LLC
USA

infous@vectorcontrols.com
www.vectorcontrols.com


© Vector Controls LLC, USA
www.vectorcontrols.com