# Add:io

## Additional I/O units



Additional I/O units for EXOcompact and EXOclever with up to 32 supplementary I/Os per Add:io. Possibility to expand an EXOclever controller with unlimited I/Os and an EXOcompact with up to 50 I/Os. The Add:io units fit smoothly together, requiring minimal space.

- ✓ Plug'n play with Regin's system solution
- ✓ Easy to increase the amount of I/Os
- ✓ Add I/Os next to the controller, or in another cabinet up to 300 m away
- ✓ Ideal to combine with other modules in the Add:io series

## **Application**

The Add:io series is intended for use in combination with EXOclever and EXOcompact to expand the number of I/Os in a system. Each unit expands the system with up to 32 I/Os. An EXOclever controller can be expanded with unlimited I/Os or an EXOcompact with up to 50 I/Os.

The units are programmable in EXOdesigner, the same environment used for all other EXO controllers.

#### **Function**

The Add:io and the controller communicate via the EFX port. The units are connected with a cable allowing 300 meters communication distance. Some models are equipped with a 0(4)...20 mA input, especially adapted for the Water and Wastewater segment.

Status indication is shown by LEDs on the side of the unit which makes it easy to see if there is a connection problem, if data is being transferred.

#### Installation

The units fit smoothly together, requiring minimal space. They can be mounted in two ways, either on their backside or stacked on the short side with a high packing density as a result.

Each unit has a unique address which is easily set with DIP-switches.

Add:io



## Technical data

#### General data

Supply voltage	24 V AC 5060 Hz or 24 V DC			
Tolerance	1826 V AC / 2230 V DC			
Power consumption, nominal	IO-EC16UID-X: 4.5 VA / 1.8 W IO-EC16UOB-X: 7.8 VA / 3.5 W IO-EC8UID8UOB-X: 5.7 VA / 2.5 W IO-EC32DIA-X: 5.2 VA / 2.2 W IO-EC32DIB-X: 5.2 VA / 2.2 W IO-EC16DOE-X: 4.3 VA / 1.5 W			
Protection class	IP20			
Ambient humidity	Max. 95 % RH			
Ambient temp. (working)	055 °C			
Storage temperature	-20+70 °C			
Mounting	DIN-rail			
Number of modules	8			
Inputs/Outputs	See data on the physical product.			
Display	No			
Status indication type	LED for communication information			
I/O indication, front label	LED for indication; status DO/DI			
Cable connection	Push-in connectors			
Dimensions, external (WxHxD)	140 x 136 x 46 mm			
Weight (incl. packaging)	0.30 kg			

#### Serial port data

Port type	RS485
Default protocol	EFX
Supported protocols	EFX slave
Port isolation	Yes, 170 V
Communication speed	115200 bps
Cable length	max 300 m



#### I/O data

I/O data					
Universal input d (Uld)	AI:				
	<ul> <li>✓ 0(2)10 V DC</li> <li>✓ 0(4)20 mA (Shunt 150Ω, overcurrent protected)</li> <li>✓ 8001600 Ω (Pt1000, Ni1000 LG, Ni1000 DIN)</li> <li>✓ 04000 Ω (Pt1000 ext, Ni1000 LG ext, Ni1000 DIN ext)</li> <li>✓ Tolerant against misconnection with 24V AC/DC</li> <li>DI:</li> </ul>				
	<ul> <li>✓ Sourcing input type, GND is ref</li> <li>✓ Pulse counting (pulse width &gt;4ms)</li> <li>✓ Tolerant against misconnection with 24V AC/DC</li> </ul>				
Universal output b (UOb)	AO:				
	<ul> <li>✓ 0(2)10 V DC, short-circuit protected (3 mA, short circuit protection)</li> <li>✓ Tolerant against misconnection with 24V AC/DC</li> <li>DO:</li> </ul>				
	√ 24 V AC/DC sinking MOSFET, DC short-circuit protected (2 A, DC short circuit protected)				
Digital input a (Dla)	DI:				
	<ul> <li>✓ Sinking input type, +C is ref</li> <li>✓ Pulse counting (pulse width &gt;4 ms)</li> <li>✓ Tolerant against misconnection with 24V AC/DC</li> </ul>				
Digital input b (Dlb)	DI:				
	<ul> <li>✓ Sourcing input type, GND is ref</li> <li>✓ Pulse counting (pulse width &gt;4 ms)</li> <li>✓ Tolerant against misconnection with 24V AC/DC</li> </ul>				
Digital output e (DOe)	DO:				
	√ 24 V AC/DC sinking MOSFET, DC short-circuit protected (2 A, DC short circuit protected)				

#### Material

Material, housing	Polycarbonate (PC)

## CE

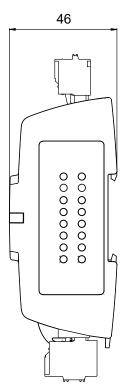
This product carries the CE-mark. More information is available at <a href="www.regincontrols.com">www.regincontrols.com</a>.

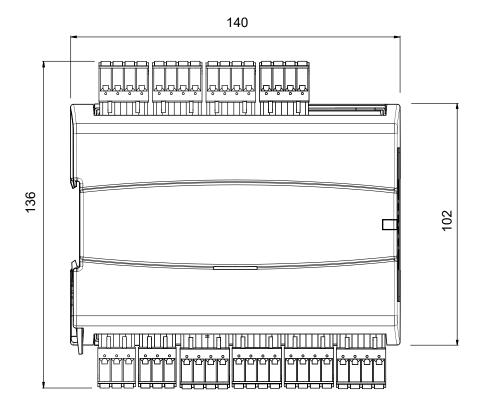


## Models

Article	Universal input d (Uld)	Universal output b (UOb)	Digital input a (DIa)		Digital output e (DOe)
IO-EC16UID-X	16	-	-	-	-
IO-EC16UOB-X	-	16	-	-	-
IO-EC8UID8UOB-X	8	8	-	-	-
IO-EC32DIA-X	-	-	32	-	-
IO-EC32DIB-X	-	-	-	32	-
IO-EC16DOE-X	-	-	-	-	16

## Dimensions





#### [mm]

## Documentation

All documentation can be downloaded from <a href="www.regincontrols.com">www.regincontrols.com</a>.

