

# EXOdos

# Freely programmable controllers

Small, compact controller with different types of communication, with or without built-in display. It can be used either as a stand-alone unit or as part of a larger system.

# **EXO**dos

The EXOdos series of controllers are available with 2 communication ports, and with or without M-Bus.

They are fully compatible with all other products in the EXO range. The controllers are freely programmable using the high-level EXO language EXOL<sup>®</sup>. Programming takes place in EXOdesigner, the same environment used for all other EXO controllers.

# Areas of application

EXOdos is primarily intended for use in installations with a limited number of I/O:s, placing a high importance on a freely programmable, compact controller providing both communication capabilities and high performance. EXOdos can be used either as a stand-alone unit or together with other EXO products as part of a larger automation system.

In large automation systems, EXOdos makes an excellent complement to other EXO controllers, being ideally suited for localised tasks such as control of heating and ventilation applications.

# Application programming

EXOdos features a factory-loaded application that enables both address and communication settings to be entered into an otherwise empty controller via the display.

It is also possible to load a new or updated control application while the present control application is running.

The controller's application memory is divided into partitions and the tool *Setup Controller* is used to alternate between partitions. It is therefore easy to use the factory-loaded application to return to the original control application if any problems should occur within the new one.

# Quick facts about EXOdos

- Suitable for many applications, especially heating, but also ventilation
- Small and compact controller
- Large number of communication possibilities
- Several protocols available
- Applications can be downloaded during operation
- Local and remote display simultaneously

# Communication

EXOdos is capable of communicating via RS485 (EXOline, Modbus, BACnet MS/TP), TCP/IP (EXOline, BACnet/IP, Modbus TCP) and M-Bus.

# TCP/IP

The built-in TCP/IP-port makes it easy to create systems spanning a very wide area. By using network infrastructure already in place for ordinary computers, installation costs can be greatly reduced.

# Serial communication

EXOline and Modbus communication takes place via RS485. M-Bus functionality makes it possible to use EXOdos with most types of meters.





# **Built-in display**

In models with built-in display, the display has blue backlight and 4 rows of 20 characters each. The display light is normally dimmed but is activated when a button is pressed. The display light will be dimmed again after a period of inactivity.

The display menu is handled using five buttons.

# External displays

For installations requiring an external display, EXOdos comes prepared for quick connection (4P4C modular connector) of ED9200 and E3-DSP.

It is possible to use both an internal and an external display at the same time. The maximum permitted cable length for an external display is 100 m.



For more information on ED9200 and E3-DSP, see the respective product sheet of each product.

# Models

| Model      | AI | DI | UA* | DO | RS485 | TCP/IP | Built-in<br>M-Bus | Built-in<br>display | Power<br>consumption |
|------------|----|----|-----|----|-------|--------|-------------------|---------------------|----------------------|
| XF192DT-1  | 8  | 2  | 2   | 7  | 1     | 1      | -                 | Yes                 | 10 VA                |
| XF192T-1   | 8  | 2  | 2   | 7  | 1     | 1      | -                 | -                   | 9 VA                 |
| XF193DTM-1 | 8  | 2  | 2   | 7  | 1     | 1      | Yes               | Yes                 | 10.5 VA              |
| XF193TM-1  | 8  | 2  | 2   | 7  | 1     | 1      | Yes               | -                   | 9.5 VA               |

\*Can be configured to function as either analogue input 0...10 V or analogue output 0...10 V.

# Technical data

Supply voltage Measurements (WxHxD, incl. terminals) Mounting Protection class Display Clock Operating system

# CE

# Battery

Type Battery life Battery backup

# Operation

Ambient temperature Humidity

# Storage

Ambient temperature Humidity

# Communication

EXOline port 1 EXOline BACnet communication Modbus communication

# Inputs

Analogue inputs, AI

Digital inputs, DI

# Outputs

Analogue outputs, UA

Digital outputs, DO

230 V AC +10%/-6% 146,7 x 97,6 x 76,0 mm In cabinet door, on DIN-rail or on wall, alt. over a device box IP20, IP40 when mounted in cabinet door 4 rows of 20 characters with backlight 24 h clock with battery backup EXOrealC

**EMC:** This product conforms to the requirements of the EMC Directive 2014/30/EU through product standards EN 61000-6-2 and EN 61000-6-3. **LVD:** This product conforms to therequirements of the LVD Directive 2014/35/EU through product standards EN 60730-1 and EN 60730-2-9.

**RoHS:** This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

Replaceable Lithium cell, CR2032 More than 5 years Memory and real-time clock function

0...50°C Max 95 % RH, non-condensing

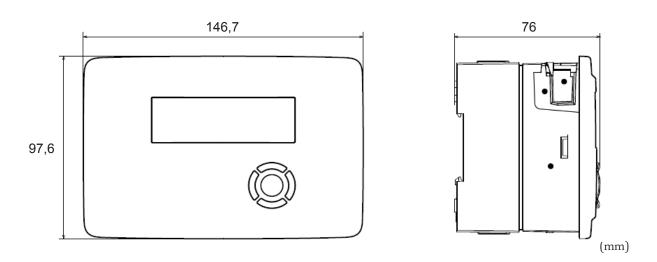
-20...70°C Max 95 % RH, non-condensing

Insulated via built-in RS485 contact Via TCP/IP port or serial port (RS485) BACnet/IP via TCP/IP or BACnet MS/TP via serial port (RS485) Via TCP/IP or serial RS485 communication

PT1000 (-50...150°C), Ni1000 DIN (-40...105°C), Ni1000 L&G (-40...120°C), Resistance (800...1600 Ohm) Potential-free closure

0...10 V DC 8 bit D/A short-circuit protected 7x relay, 230 V AC, 1 A inductive load, max. 7 A total

# Dimensions



| Product documentation                |                                          |  |  |
|--------------------------------------|------------------------------------------|--|--|
| Document                             | Туре                                     |  |  |
| Manual EXOdos                        | Manual for EXOdos                        |  |  |
| EXO Displays User Guide              | Manual on display handling               |  |  |
| Product sheet and instruction E3-DSP |                                          |  |  |
| Product sheet ED9200                 | Information about external display units |  |  |

The product sheets and instructions can be downloaded from www.regincontrols.com.

The manuals can be downloaded from Regin's FTP server. The FTP is intended for our system customers who need to share files with us, e.g. at technical support. Contact one of our sales engineers to get access to the FTP server.

