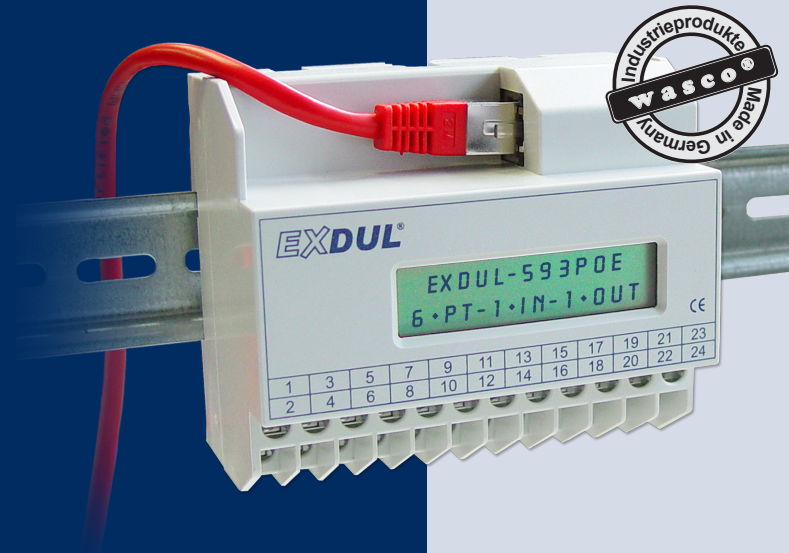


# EXDUL-593POE

**Ethernet Module with 6 Temperature Measuring Units, 1 Optocoupler Input, 1 Optocoupler Output, LCD Display and Power supply via Power over Ethernet**



**6 temperature measuring units**  
 PT100 3-wire sensing  
 PT1000 3-wire sensing

**1 optocoupler input**

**1 optocoupler output**

**programmable logic**  
 with module-controlled message to PC

**1 Counter 32 Bit**  
 with data backup in case of blackout

**Watchdog**

**LCD display**

## SPECIFICATIONS

**6 Temperature measuring units**  
 PT100 3 wire sensing  
 PT1000 3 wire sensing  
 sensor type per unit selectable  
 via jumpers  
 input protection: +/-45V

**Optocoupler input**  
 1 bipolar channel  
 Over voltage protection diodes  
 Input voltage range  
 high = 10..30 Volt  
 low = 0..3 Volt

**Optocoupler output**  
 1 channel  
 High capacity optocouplers  
 Reverse polarity protection  
 Output current: max. 150 mA  
 Switching voltage: max. 50 V

**Counter**  
 1 hardware-supported programmable counter  
 32 Bit (allocated to the optocoupler input)  
 counting frequency: max. 5 kHz  
 automatic backup of meter readings in case  
 of blackout

**Webpage**  
 Configuration  
 Function test  
 Firmware update

**Communication Watchdog**  
 adjustable time slot of 1 bis 2<sup>32-1</sup> ms

**Programmable Logic**  
 Output switchable via links  
 Message to PC in case of a change of state  
 at the input

**LCD Display**  
 Matrix display with 2 lines and 16 columns  
 presenting 16 signs each line  
 Programmable for presentation of customized  
 data or I/O status display

**Operation voltage**  
 Power over Ethernet IEEE802.3  
 or  
 +10 V...+30 V via external power supply

**Ethernet Interface with PoE**  
 10/100Base-T Ethernet Interface

**Connection Terminals**  
 1 \* 24-pin screw terminal block  
 Ethernet RJ45 socket

**Ethernet connection lines**  
 RJ45 network cable Cat6 or later

**Dimensions**  
 105 mm x 89 mm x 59 mm (l x b x h)

**Casing**  
 Insulating plastic casing with integrated  
 snap-on technology for DIN EN rail mounting.  
 Suitable for control and engineering technol-  
 ogy mounted to control and distribution boxes,  
 surface mounting or mobile use on a desk.

The module EXDUL-593PoE features 6 measuring units with PT100 and PT1000 sensors, each of which with its own current source and measuring inputs. The measuring of the individual sensors is made by software commands. Both the temperature and the sensor resistance can be measured.

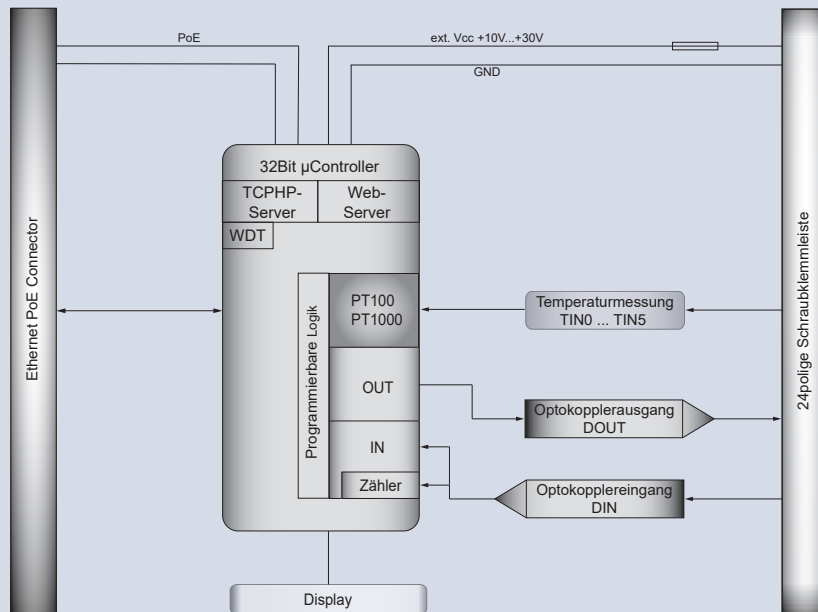
In addition, the module provides one digital input and one digital output galvanically isolated via high-quality optocouplers and additional protection diodes. The special high power output optocoupler copes with a switching current up to 150 mA.

The module can be powered by both power over Ethernet as via one external voltage source with the emergency agile operating voltage.

The module can be configured in a user-friendly way via the integrated webpage. In addition, a simple function test is possible.

Communication between PC and module is done by sending and receiving Bytearrays via a stable TCP/IP connection, which is secured by a handshake protocol.

## BLOCK DIAGRAM



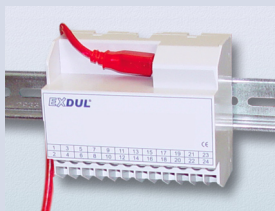
## PIN ASSIGNMENT

The Terminals Vcc\_EXT und GND\_EXT are designated for an application of an external supply voltage of 10 ... 30 V.

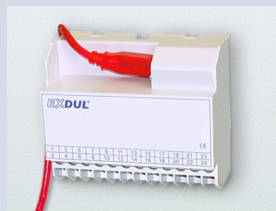
### Screw Terminal CN1

RTDIN0+	2	1	FORCE0+
FORCE1+	4	3	FORCE0-
FORCE1-	6	5	RTDIN1+
RTDIN2+	8	7	FORCE2+
FORCE3+	10	9	FORCE2-
FORCE3-	12	11	RTDIN3+
RTDIN4+	14	13	FORCE4+
FORCE5+	16	15	FORCE4-
FORCE5-	18	17	RTDIN5+
DOUT0-	20	19	DOUT0+
DIN0-	22	21	DIN0+
GND_EXT	24	23	Vcc_EXT

## ASSEMBLY AND APPLICATION OP-



Top-hat Rail Mounting



Wall Mounting



Mobile Use on a Desk

The programmable logic of the module can be used both for autarkic actions at the output as well as for messages to the PC.

This way the need of a polling at the inputs often is eliminated and both data traffic and computer load significantly can be reduced.

The programmable LCD display presents digital and analog I/O status information or programmable user-specific data.

The module provides a 24-pin screw terminal block for connecting the external power supply as well as the input and output optocoupler.

The compact chassis enables the module to be used as a portable device

## PROGRAMMING

### Windows®:

Driver and program examples for Java, VB.NET, C++.NET, C#.NET, Python, LabView Tutorial

### Linux®:

Driver and program examples for C, C++, Python and Java (see manual)

### Android:

Driver and program examples for C#

Download at:

[www.messcomp.com](http://www.messcomp.com), Section Support - Software

## SCOPE OF DELIVERY

Ethernet Module EXDUL-593PoE

Cat.6 Ethernet cable 1 m

German Description (English on request)

Installation and sample programs

## ORDER INFORMATION

EXDUL-593PoE EDP-No. A-372330

Ethernet Optocoupler I/O Module

For more detailed information about the here listed and other accessories we refer to the corresponding data sheets

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