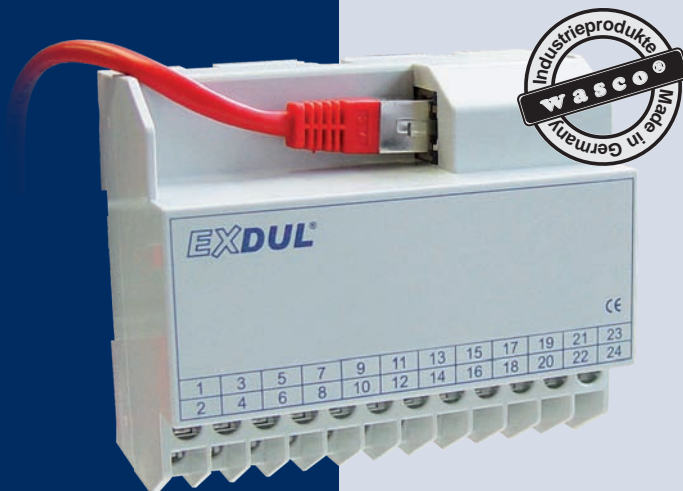


# EXDUL-592S100

**Ethernet Module with 4 Analog Voltage Inputs, 2 Analog Current Inputs, 1 Optocoupler Input, 1 Optocoupler Output and 3 Temperature Measuring Units PT100**



- 4 A/D inputs 16 bit**  
voltage measurement
- 2 A/D inputs**  
current measurement 4..20mA
- 1 optocoupler input**
- 1 optocoupler output**
- 3 temperature measuring units**  
PT100 3-wire sensing
- 1 Counter 32 Bit**

## SPECIFICATIONS

EXDUL-592 features either four ground referenced or two differential 16-bit A/D input channels. Several bipolar input voltage ranges (+/-0.63 V, +/-1.27 V, +/-2.55 V, +/-5.1 V, +/-10.2V) can be adjusted. The two bipolar current inputs (+/- 20mA) are calibrated to 4..20mA. For temperature measurement the module features 3 measuring units with PT100 sensors, each of which with individual current source and metering inputs. The conversion process including the associated configuration of the A/D components (selection of range and channel) is triggered by software commands. Additionally the module provides one digital input and one digital output which are opto-isolated galvanically by high-quality optocouplers and are equipped with additional protection diodes. The special high power output optocoupler copes with a switching current up to 150 mA. The optocoupler input may be programmed and used as a 32-bit counter input if required.

An external power supply is required to supply the necessary operating voltage to the module,

### A/D inputs voltage

4 inputs single-ended (se) or 2 inputs differential (diff) or combined se/diff selectable via software  
Resolution: 16 bit  
Input voltage range bipolar:  
+/-0,63 Volt, +/-1,27 Volt, +/-2,55 Volt, +/-5.1 Volt, +/-10.2 Volt  
FIFO: 10000 values  
Input resistance: 500 MΩ  
Over voltage protection: 50V  
max. sampling rate:100kHz

### A/D inputs current

2 inputs  
Resolution 15 Bit  
Measuring range +/- 20mA  
Calibrated to 4..20mA  
Input resistance 120Ω  
FIFO: 10000 measured values  
max. sampling rate 100kHz

### 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 programmable counter 32 Bit  
(allocated to the optocoupler input)  
counting frequency: max. 5 kHz

### 3 Temperature measuring units PT100

3-wire sensing

### Operation voltage

external power supply required  
+10 V...+30 V

### Ethernet Interface

100Base-T Ethernet Interface

### Connection Terminals

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

### Ethernet connection lines

RJ45 network cable Cat5 or later

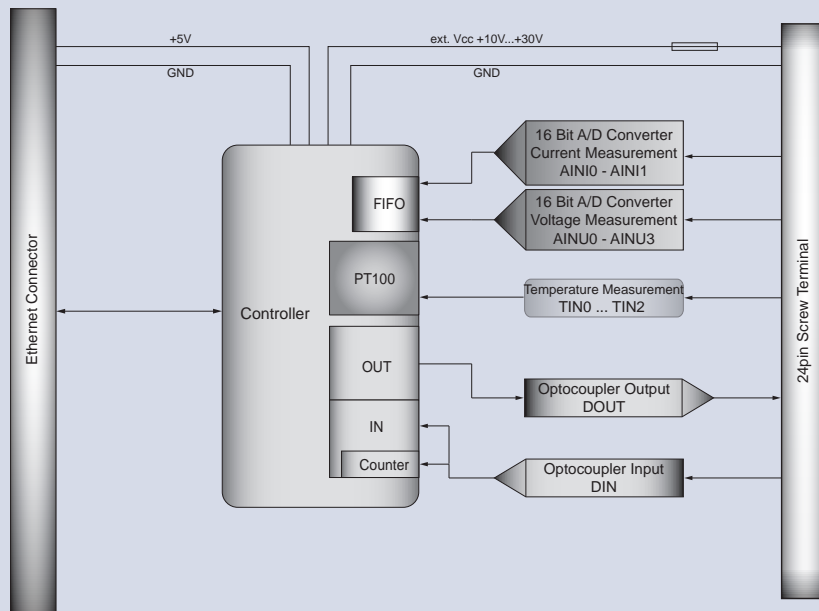
### Dimensions

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 technology mounted to control and distribution boxes, surface mounting or mobile use on a desk.

## 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

|         |    |    |         |
|---------|----|----|---------|
| AINU1+  | 2  | 1  | AINU0+  |
| AINU3+  | 4  | 3  | AINU2+  |
| AINI0-  | 6  | 5  | AINI0+  |
| AINI1-  | 8  | 7  | AINI1+  |
| FORCE0+ | 10 | 9  | AGND    |
| FORCE0- | 12 | 11 | RTDIN0+ |
| RTDIN1+ | 14 | 13 | FORCE1+ |
| FORCE2+ | 16 | 15 | FORCE1- |
| FORCE2- | 18 | 17 | RTDIN2+ |
| DOUT0-  | 20 | 19 | DOUT0+  |
| DIN0-   | 22 | 21 | DIN0+   |
| GND_EXT | 24 | 23 | Vcc_EXT |

## ASSEMBLY AND APPLICATION OPTIONS



Top-hat Rail Mounting



Wall Mounting



Mobile Use on a Desk

The module provides a 24-pin screw terminal block for connecting the external power supply and the analog or digital inputs and outputs.

The compact chassis enables the module to be used as a portable device with a notebook. For mechanical or control engineering it can also be easily wall mounted or attached to DIN mounting rail.

## PROGRAMMING

### Windows®:

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

### Linux®:

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

on enclosed CD or download at:  
[www.messcomp.com](http://www.messcomp.com), Section Support - Software

## SCOPE OF DELIVERY

Ethernet Module EXDUL-592S

Cat.5 Ethernet cable 1 m

German Description (English on request)

Installation and sample programs

## ORDER INFORMATION

EXDUL-592S

EDP-No. A-372210

Ethernet Optocoupler I/O Module

## SUITABLE ACCESSORIES

### DR-60-24

EDP-No. A-3425

Switching power supply providing one output 24 V / 2,5 A, closed construction design, touch-protected screw terminals, overload protection by current limitation, Power-On-LED



### F4652-24-Set

EDP-No. A-351024

Industrial power relay combination with two changeover contacts 250 V / 8 A and free-wheeling diode, snap-on technology for DIN EN top-hat rails



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

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