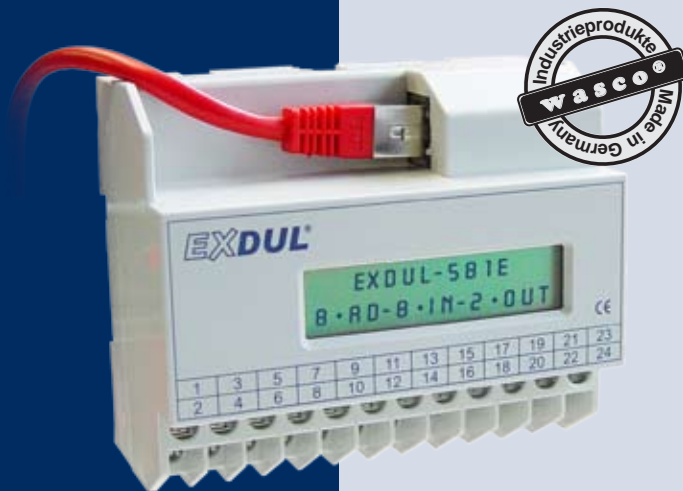


# EXDUL-581E

**Ethernet Module with 8 Analog Inputs, 8 Optocoupler Inputs, 2 Optocoupler Outputs and LCD Display**



## 8 A/D inputs 16 bit

8 A/D inputs single-ended  
or  
4 A/D inputs differential

## 8 optocoupler inputs

## 2 optocoupler outputs

## 5 Counter 32 bit

## LCD Display

The module EXDUL-581E provides either eight single ended or four differential 16-bit A/D input channels. Several bipolar input voltage ranges (+/-0.63 V, +/-1.27 V, +/-2.55 V, +/-5.1 V, +/-10.2 V) can be adjusted. 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 eight digital inputs and two digital outputs which are opto-isolated galvanically by high-quality optocouplers and are equipped with additional protection diodes. Special high power output optocouplers cope with a switching current up to 150 mA. An external power supply powers the module with the required operating voltage. The module provides a 24-pin screw terminal block for connecting the external power supply as well as the analog/digital inputs and outputs. The programmable LCD display presents either digital I/O status information or user-specific data. 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 rails.

## SPECIFICATIONS

### A/D inputs

8 inputs single-ended (se)  
or 4 inputs differential (diff)  
or combined se/diff selectable via software  
Resolution: 16 bit  
Input voltage ranges bipolar:  
+/-0.63 Volt, +/-1.27 Volt, +/-2.55 Volt,  
+/-5.1 Volt, +/-10.2 Volt  
FIFO: 10000 values  
Input resistor: 500  $\Omega$   
Over voltage protection: 50V  
Measuring cycle: 100kHz

### Optocoupler inputs

8 bipolar channels, galvanically isolated  
Over voltage protection diodes  
Input voltage range  
high = 10..30 Volt  
low = 0..3 Volt

### Optocoupler outputs

2 channels, galvanically isolated  
High capacity optocouplers  
Reverse polarity protection  
Output current: max. 150 mA  
Switching voltage: max. 50 V

### Counters

5 programmable counters 32 bit (occupying  
5 optocoupler inputs)  
Counting frequency: max. 5 kHz

### LCD Display

Matrix display with 2 lines and 16 columns  
presenting 16 characters each line  
Programmable to display user specific data  
or I/O status

### Operation voltage

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

### Ethernet Interface

100Base-T Ethernet Interface

### Connection terminals

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

### Ethernet connection lines

RJ45 network cable Cat5 or higher

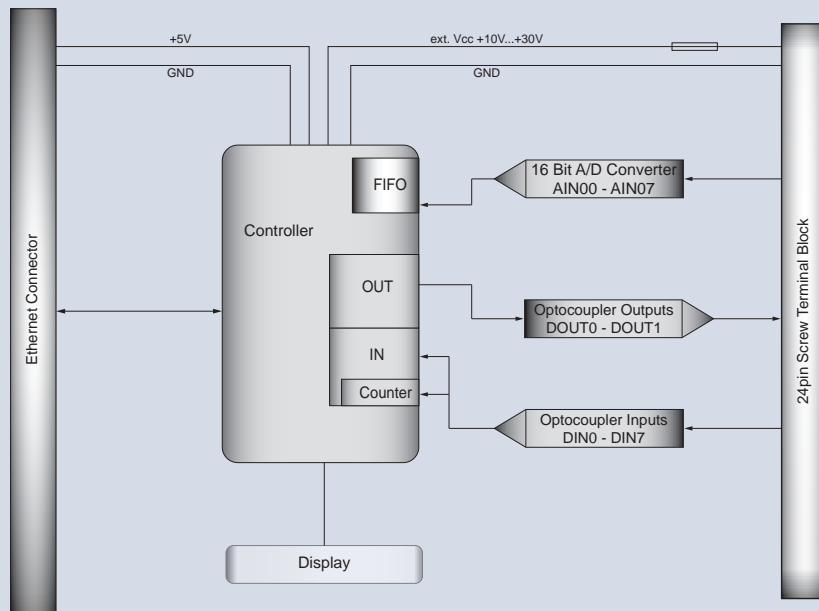
### Dimensions

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

### Casing

Insulating plastic casing with integrated snap-in 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

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

### Screw-Terminal CN1

AIN01+	2	1	AIN00+
AIN03+	4	3	AIN02+
AIN05+	6	5	AIN04+
AIN07+	8	7	AIN06+
AGND	10	9	AGND
DIN1 / Counter1	12	11	DIN0 / Counter0
DIN3 / Counter3	14	13	DIN2 / Counter2
DIN5	16	15	DIN4 / Counter4
DIN7	18	17	DIN6
DOUT+	20	19	DIN_COM
DOUT1-	22	21	DOUT0-
GND_EXT	24	23	Vcc_EXT

## ASSEMBLY AND APPLICATION OPTIONS



Top-hat Rail Mounting



Wall Mounting



Mobile Use on a Desk

## PROGRAMMING

Driver installation from the enclosed CD. Information about the supported Windows versions is available in section support of [www.wasco.de](http://www.wasco.de).

Sample programs for Microsoft Visual C++, C# and Microsoft Visual Basic are included on CD.

## SCOPE OF DELIVERY

Ethernet Module EXDUL-581E  
Ethernet connection cable 1m long  
German Description (English on request)  
Installation and sample programs

## ORDER INFORMATION

EXDUL-581E EDP-No. A-371772  
Ethernet Optocoupler I/O Module

## SUITABLE ACCESSORIES

### DR-60-24

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

EDP-No. A-3425



### F4652-24-Set

Industrial high-power relay combination with two change-over contacts 250 V / 8 A and free-wheeling diode, snap-in technology for DIN EN top-hat mounting

EDP-No. A-351024



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