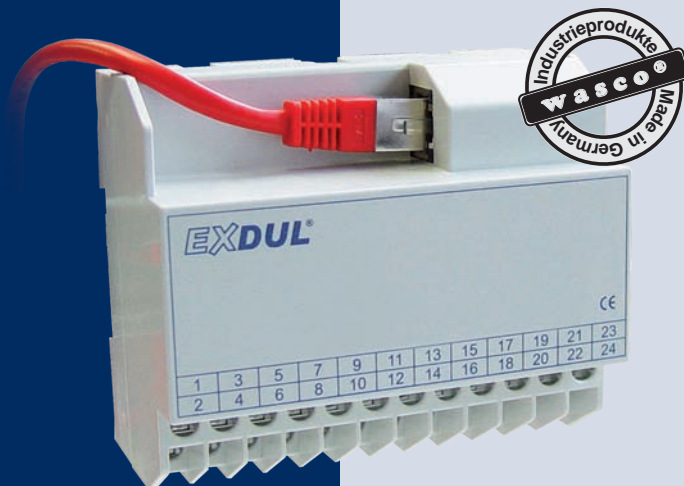# wasco®

EXDUL-581S

Ethernet Module with 8 Analog Inputs, 8 Optocoupler Inputs, 2 Optocoupler Outputs

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 Counters 32 bit

SPECIFICATIONS

EXDUL-581S 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 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 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.

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 range bipolar:
  +/-0,63 Volt, +/-1,27 Volt, +/-2,55 Volt, +/-5.1 Volt, +/-10.2 Volt
FIFO: 10000 valves
Input resistor: 500 MΩ
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

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 LIne
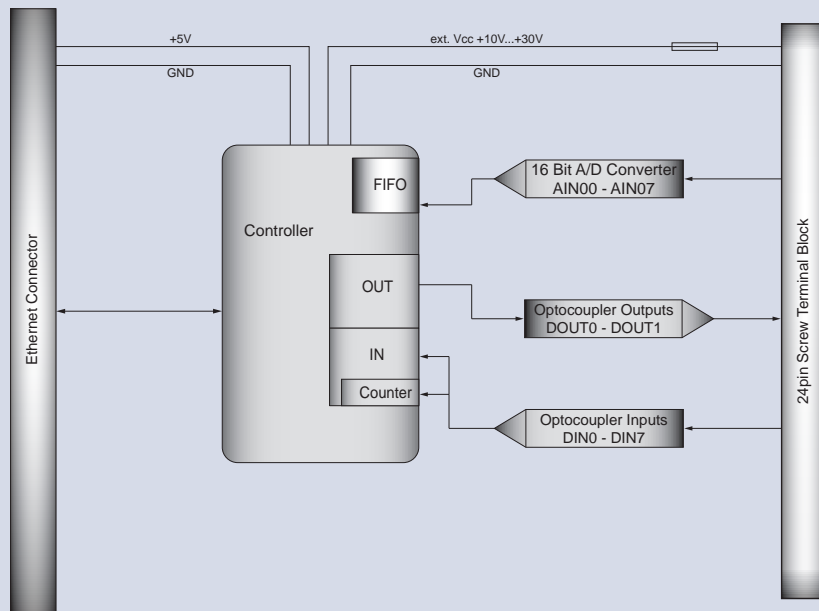RJ45 network cable Cat5 or higher

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

Casing
Insulating plastic casing with integrated snap-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

+5V

GND

ext. Vcc +10V...+30V

GND

Ethernet Connector

Controller

FIFO

16 Bit A/D Converter
AIN00 - AIN07

OUT

Optocoupler Outputs
DOUT0 - DOUT1

IN

Counter

Optocoupler Inputs
DIN0 - DIN7

24pin Screw Terminal Block

PIN ASSIGNMENT

Terminals Vcc_EXT und GND_EXT are provided for an application of 10 ... 30 V 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

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, Section Support - Software

SCOPE OF DELIVERY

Ethernet Module EXDUL-581S
Cat5 Ethernet connection cable 1m long
German Description (English on request)
Installation and sample programs

ORDER INFORMATION

EXDUL-581S   EDP-No. A-371760
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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