

## Description

The AD-VL 500 FE monitor module is a display unit and data logger for front panel installation. It has up to 8 analogue standard signal inputs. The inputs can be configured as current or voltage inputs. Counter values can be derived simultaneously from the analogue signals by means of adjustable switching thresholds. A scaled measured value display with freely definable units is possible. The display is done by freely configurable display elements such as numeric display, bar graph, time diagram, drag pointer, LEDs, etc. The unit is supplied with predefined standard display windows. All signals can be logged cyclically in the unit's own memory. The logged data are stored as daily files on an internal micro SD card. They can be retrieved at any time with a USB stick or downloaded via the network interface. The unit can be configured either via the integrated web server of the network interface or via the configuration software AD-Studio. The configuration software is available free of charge on the ADAMCZEWSKI website. The various interfaces (RS485/LAN) make it easy to integrate the device into your own data networks in order to read out measurement data in real time.

## Application

Display of freely definable values on a graphic display. Scrolling through several display types. Visual signal monitoring with web browser. Logging of data for later evaluation.



## Specific characteristics

- 40 configurable display elements.
- All properties of the display elements such as colour, size, position, labelling and type are configurable.
- 10 configurable displays with 1...12 display elements per display.
- Integrated web server.
- Convenient configuration of the displays via PC software AD-Studio.
- Buffered real-time clock.
- Interface protocols: Modbus-RTU, Modbus-TCP

## Business data

**Order number**  
AD-VL 500 FE

## Information

### Downloads

Instruction manual

[man-vl500-ad-en.pdf](#)



## Technical specifications

### Current inputs

Range 0 ... 20 mA  
Resolution 14 bit  
Input resistance 50 Ohm

### Voltage inputs

Range 0 ... 10 V  
Resolution 14 bit  
Input resistance 100 kOhm

### Counter

Range 0 ... 20 mA; 0 ... 10 ... 24 V  
Input resistance I: 50 Ohm; U: 100 kOhm  
Frequency < 1,5 Hz  
Pulse width > 300 ms

### Supply

Supply voltage 20 ... 253 V DC  
Supply voltage 50 ... 253 V AC  
Max. power consumption 3,0W / 9,5VA

### Housing

Dimensions (WxHxD) 96x96x63 mm  
Front panel cut out 92x92 mm  
Protection class panel IP 54  
Protection class connection IP 20  
Connection method detachable terminal clamp  
Manner of fastening Panel-mount-case  
Weight 250 g

### Environmental conditions

Ambient temperature -10 ... 50 °C  
Storage and transport -10 ... 70 °C (no condensation)  
Pollution degree 2

### EMC

Product family standard EN 61326-1  
Emitted interference EN 55011, CISPR11 Cl. B, Gr. 1

### Electrical safety requirements

Product family standard EN 61010-1

## Technical specifications

### RS485-interface

Connection	3-pole socket 3.81mm
Standard	RS-485
Protocol	Modbus-RTU
Function	Konfiguration, Modbus-Slave
Max. length of bus	100m - twisted, shielded cable
Bus termination	120 Ohm (both sites of the bus)

### Configuration interface

Connection	3.5mm jack socket
Standard	AD-PC (UART), proprietary
Function	configuration

### Network interface

Connection	RJ45 socket
Standard	Ethernet, 10/100 Mbit/s
Protocol	HTTP, Modbus-TCP
Function	Web server, configuration, download
User name	admin
Factory password	leave empty

### USB interface

Connection	Type A socket for USB stick
Standard	USB 1.0, 2.0
Function	Data transfer

### Display

Type	3,5 TFT
Resolution	320x240 Pixel

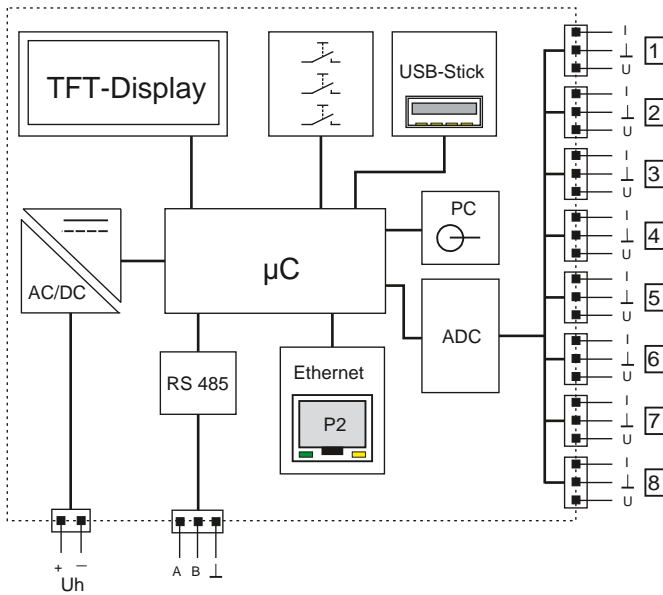
### Operation

Type	3 short-stroke keys
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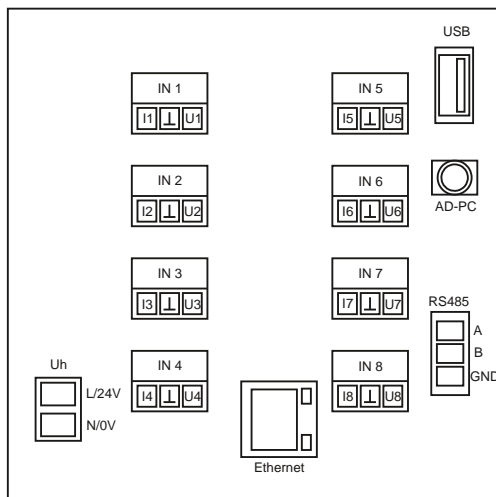
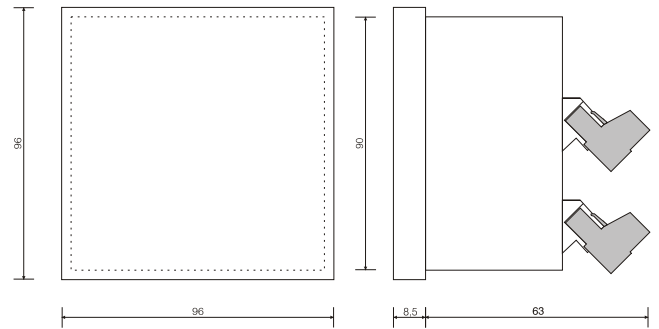
### Data logger

Internal memory size	2 GB
Internal storage medium	µSD, single level cell
Sampling interval	1s ... ~18h
Max. channels	32
Data format	*.csv (Text)

### Block and wiring diagram



### Dimensions



## Modbus-Data

## Readings

Start address	no. of registers	name	unit	data type	read	write
40017	2	Analog value 1	mA/V	float	yes	no
40019	2	Analog value 2	mA/V	float	yes	no
40021	2	Analog value 3	mA/V	float	yes	no
40023	2	Analog value 4	mA/V	float	yes	no
40025	2	Analog value 5	mA/V	float	yes	no
40027	2	Analog value 6	mA/V	float	yes	no
40029	2	Analog value 7	mA/V	float	yes	no
40031	2	Analog value 8	mA/V	float	yes	no
40033	2	Scale value 1		float	yes	no
40035	2	Scale value 2		float	yes	no
40037	2	Scale value 3		float	yes	no
40039	2	Scale value 4		float	yes	no
40041	2	Scale value 5		float	yes	no
40043	2	Scale value 6		float	yes	no
40045	2	Scale value 7		float	yes	no
40047	2	Scale value 8		float	yes	no
40051	1	Digital level 1	0/1	U16	yes	no
40052	1	Digital level 2	0/1	U16	yes	no
40053	1	Digital level 3	0/1	U16	yes	no
40054	1	Digital level 4	0/1	U16	yes	no
40055	1	Digital level 5	0/1	U16	yes	no
40056	1	Digital level 6	0/1	U16	yes	no
40057	1	Digital level 7	0/1	U16	yes	no
40058	1	Digital level 8	0/1	U16	yes	no
40061	2	Counter value 1		U32	yes	yes
40063	2	Counter value 2		U32	yes	yes
40065	2	Counter value 3		U32	yes	yes
40067	2	Counter value 4		U32	yes	yes
40069	2	Counter value 5		U32	yes	yes
40071	2	Counter value 6		U32	yes	yes
40073	2	Counter value 7		U32	yes	yes
40075	2	Counter value 8		U32	yes	yes