

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

Technical specifications

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

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

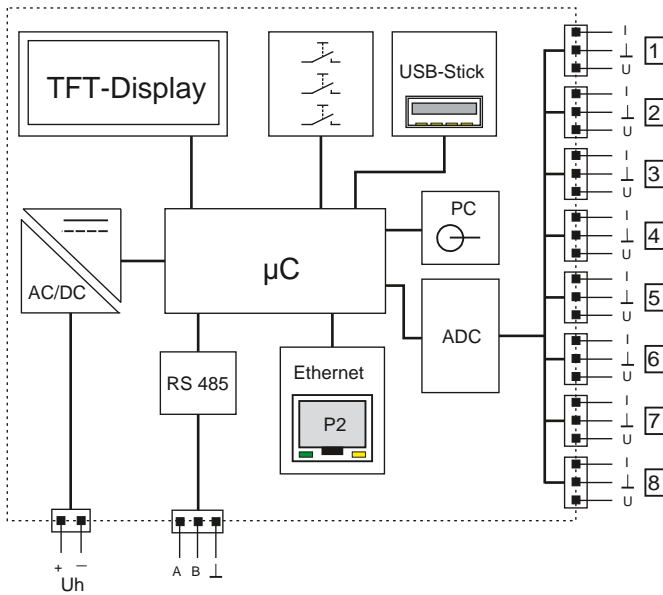
Operation

Type	3 short-stroke keys
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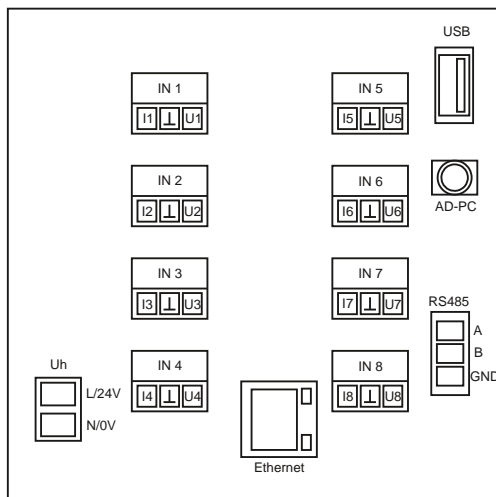
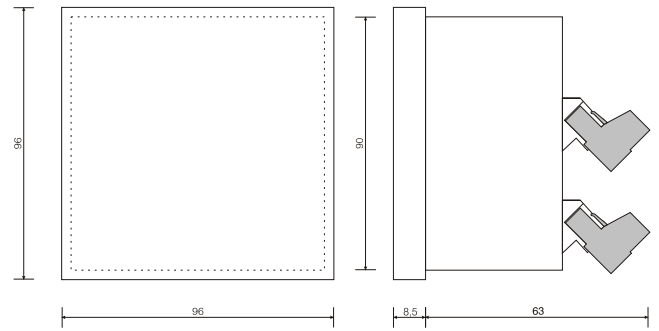
Data logger

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