

High precision rack mounted meter

alpha A2500

Electronic rack mounted meter for high precision measurements

With the deregulation of the energy market, in combination with a changing cost situation, new flexible tariff structures and a modern energy management are required. Remote metering and the standardization process become more and more important. With the adaptation of the *alpha* meter A2500, ELSTER Messtechnik has created the conditions to match these new requirements.

The *alpha* meter is available either for CT connection and CT/VT connection. The meter is in accordance with the relevant DIN and IEC standards and follows the requirements of VDEW V2.1 for electronic electricity meters.



Features

- ◆ Housing with special Essalec connectors
- ◆ wide voltage range power supply → same meter can be used at all nominal voltages
- ◆ available for 3-wire and 4-wire applications
- ◆ high accuracy and stability
- ◆ display according to the VDEW-specification
- ◆ reduction of the certification time by using the efficient test mode
- ◆ 4-quadrant measurement (+P, -P, +Q, -Q, Q1..Q4)
- ◆ 4 energy and 4 demand tariffs, independently controllable
- ◆ measurement of active, reactive and apparent demand
- ◆ integrated tariff clock
- ◆ time back-up with internal supercap or battery
- ◆ time synchronization by connection of a DCF77 antenna
- ◆ readout of load profile data according to VDEW specification by use of IEC 1107 protocol
- ◆ improved load profile storage ability
 - 13 months of 15minute intervals
 - selectable up to 8 channels
 - different storage modes (demand, energy/interval, register data)
 - load profile for pulse inputs
- ◆ log file for registration of all events with time stamps
- ◆ registration of instrumentation values
- ◆ 4 electronic control inputs
- ◆ 6 electronic pulse/control outputs
- ◆ 1 mechanical relay output (option)
- ◆ up to 3 pulse inputs (option)
- ◆ auxiliary power supply (option)
- ◆ user friendly reading, setting and programming tool *alpha*SET

Technical data

Modifications or deviations are reserved Rev.1.1

Nominal voltage	4-wire meter 3-wire meter (Aron)	3x58/100V...3x240/415V 3x100V...3x240V
Nominal frequency		50 / 60Hz or 16.66Hz
Nominal (max) current		5//1, 1(2)A, 5(6)A, 5(15) other current ranges available
Accuracy		Class 0,5S and 0,2S
Power supply	Wide range power supply Nominal voltage	3x58/100V...3x240/415V (+/-20% Un), Still operates even with the failure of two phases or one phase and the neutral
4 control inputs	Control voltage Threshold	Max. 276V AC „OFF“ at <47V, „ON“ at >51V
6 electronic outputs - pulse output or - control output	AC and DC voltage Voltage range Current range	5V to < 276V AC/DC < 100mA AC/DC
1 mech. relay output	Max. switching power Life expectancy Max. switching voltage Max. current	1,325VA 10 ⁷ operations 265V AC/DC 1A AC/DC
3 pulse inputs	Pulse or synchronization input Connection to external DCF77-antenna possible	S0-standard, according to DIN 43864
Interfaces	Optical interface CL0- interface or RS232-/RS485 interface	According to IEC 1107 Protocol according to IEC 1107, 300...19,200 Baud
Time backup for RTC	Supercap Battery	> 10 days > 10 years
Auxiliary power supply	Wide range power supply	48V...230 AC/DC +/-15%
Temperature condition	Operating temperature Storage temperature	-25°...+60° -40°...+70°
EMC-compatibility		According to EN 61036, EN 60687 Surge 12kV
Power consumption	Voltage circuit Current circuit Auxiliary power supply	< 0,8W, <1,2VA per phase < 0,01W, <0,01VA per phase < 0,8W, < 1,2VA
Connections		Essailec connectors Withdrawable under power
Housing		19 inch rack mounted version, metal box

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