

Network analyzers

The ADR-D 230 D22 instruments identify a family of single-phase network analyzers for true r.m.s. measurements (TRMS) which allow direct connection for currents up to 22.5 A. The Modbus model also allows connection via CT for greater currents and has an isolated RS-485 serial output which, through the MODBUS protocol functions and the use of the relative registers, allows the analyzer to be connected to a Master device (PC/PLC...) for displaying and archiving the data.

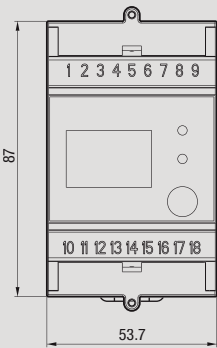


ADR-D 230 D22 Modbus
ADR-D 230 D22 Spot

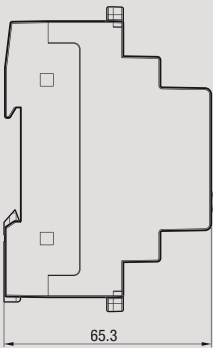
- 1 Load connection terminal
- 2 Green LED indicating the connection to the mains
- 3 Red LED to indicate activity on the serial line (only for ADR-D 230 D22 Modbus)
- 4 Button for pages scrolling and basic settings
- 5 Terminals for serial connection RS-485 (only for ADR-D 230 D22 Modbus)
- 6 Backlit display to view the electrical measurements

DIMENSIONS (mm)

Front view



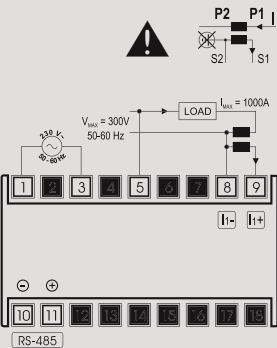
Side view



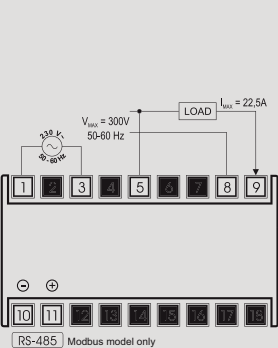
CONNECTION DIAGRAM

Diagram

ADR-D 230 D22 Modbus
(Connection via CT)



ADR-D 230 D22 Spot
ADR-D 230 D22 Modbus



ADR SINGLE-PHASE DIRECT CONNECTION
ADR SINGLE-PHASE WITH RS-485 OUTPUT

- Measurement and display of the measurements of a single-phase system: voltage, current, active power, power factor, frequency, active energy
- Separate power supply independent from the measurement
- Direct connection of the voltage cable
- View via 5+7 digits LCD display
- Zeroable partial energy meter
- Timed or disable backlighting
- RS-485 serial output with RTU serial protocol (Modbus model only)
- Overrange indication for voltages higher than 315 V
- Failure connection indication
- Selectable transformation ratios for the ADR-D 230 D22 Modbus model: 5/5, 10/5, 25/5, 50/5, 75/5, 100/5, 125/5, 150/5, 200/5, 250/5, 300/5, 400/5, 500/5, 600/5, 800/5, 1000/5



TECHNICAL INFORMATION

GENERAL CHARACTERISTICS

Power supply	Vac	230 (-15 ÷ +10%)
Frequency	Hz	50 / 60
Absorption	VA	4
Maximum current	A	22,5 / 1000/5 on CT
Maximum voltage (full scale)	V	300
Voltage resolution	V	0.1
Voltage precision		± 0.5% of the full scale ± 1 digit
Direct connection maximum current	A	22.5
Current resolution (f.s. 22.5 A)	A	0.01
Direct connection current precision		± 3% ± 1 digit (f.s. 22.5 A)
Power precision		± 1% ± 1 digit
	kW	(f.s. 100 or 1000)

Power factor precision		± 1% ± 1 digit
Frequency precision	Hz	± 0.1
Active energy precision		Class 1
Container		3 DIN modules
Installation		DIN-rail (omega bar)
Protection degree		IP20 / 51 on the front
Terminal 1-3-5		2.5 mm²
Terminal 8-9 (current)		4.0 mm²
Terminal 10-11 (serial output)		2.5 mm²
Operating temperature	°C	-10 ÷ 45
Storage temperature	°C	-20 ÷ 60
Humidity	RH	20 ÷ 90% non condensing

REFERENCE STANDARDS

Compliance with Community directives:
2014/35/UE (LVD), 2014/30/UE (EMCD)
is declared in reference to the following harmonised standards:
• EN 61010-1 • EN 61000-6-2 and EN 61000-6-4 • EN 62053-21 and EN 62053-23 (metrological requirements)

Code	Model	Description
VE009700	ADR-D 230 D22 Modbus	Single-phase network analyzer with RS-485 serial and direct connection via CT
VE008900	ADR-D 230 D22 Spot	Single-phase network analyzer 22.5 A direct connection

MEASUREMENT AND CONTROL