

Single phase Din-rail Meter

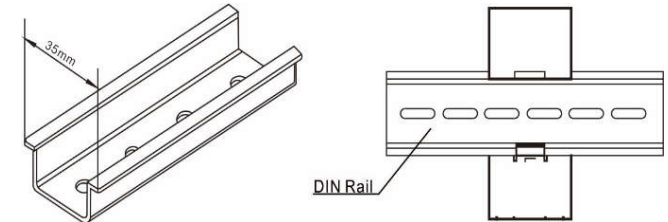
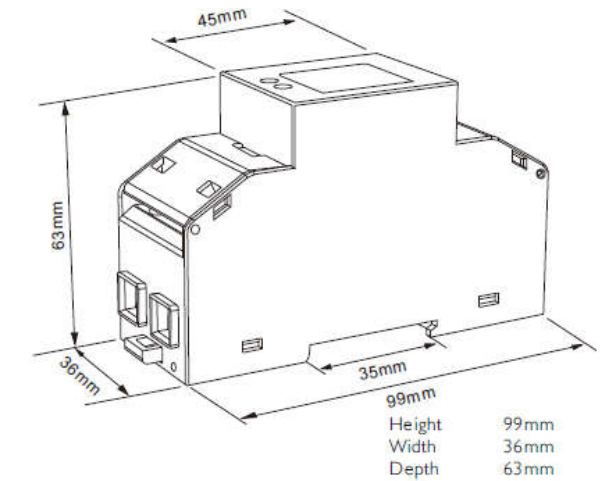
1. Function introduction

- Detect active/reactive energy, power, frequency, Max demand, voltage, Current and other important power parameters in one screen
- Provide energy import and export measurement (IMP & EXP)
- High light white backlit LCD screen
- Energy pulse output
- RS485 Modbus communication (optional)
- Standard 35mm din rail mounting
- Maximum 100A current access
- Accuracy: Class 1.0s

19D-201 meter is suit for for single-phase measurement, use scenarios such as residential, public facilities, and industrial use. 19D-201 can measure and display various important power parameters, optional communication ports support remote reading and monitoring. Bi-direction metering makes 19D-201 is an excellent choice for solar energy industry.

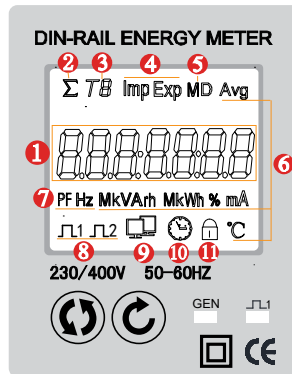
2. Specification

Measurement & Display	
Voltage	Rated 230V RMS value, Accuracy 0.5%,
Current	Rated 10A, Max 100A, Start amp 0.04A, RMS value. Accuracy 0.5%; Overload 30times In in 0.01sec
Frequency	50/60Hz, Accuracy ± 0.01 Hz
Display	LCD with white backlit
Maximum display value	9999999MkWh
AUX Power	85-275V AC, <2W/10VA
Output	
Digital port	RS-485 MODBUS-RTU
Pulse port	1600imp/kWh
Other	
Working environment	-25~55°C Altitude ≤ 2500 m, 0~95%RH, non-condensing, non-corrosive gas
Storage environment	-40~70°C
Voltage tolerance	2KV 1min
Shock voltage	6KV-1.2uS waveform
Insulation	Input, output, power supply to Shell >5M Ω



Panel & Screen introduction

- 1.- 7 digital show energy value
- 2.- Symbol for SUM record value
- 3.- Symbol for multi-tariff function
- 4.- Imp for energy consumption, Export for energy generate
- 5.- Symbol for Maximum demand
- 6.- Symbol for average value
- 7.- PF=power factory; Hz=Frequency
- 8.- Pulse output channel 1 and channel 2
- 9.-symbol for communication active
- 10.- symbol for timer
- 11.- symbol for screen locked

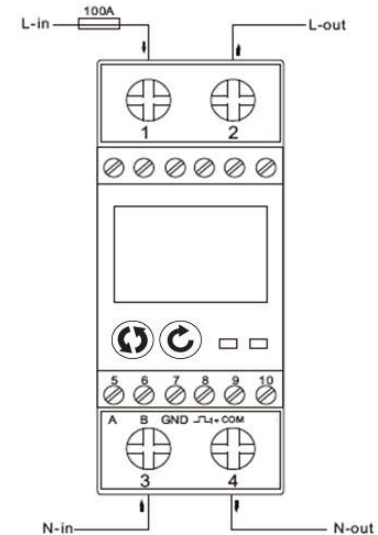


- Click for "left", can move cursor to left or change to forward screen
Press and hold for Enter operation menu
- Click for "right", can move cursor to right or change to next screen
Press and hold for confirm setting

3. Install of meter

Dimensions (L x W x H)	Din-rail	Notes
99x36x63 (mm)	35mm	



4. Wiring to grid



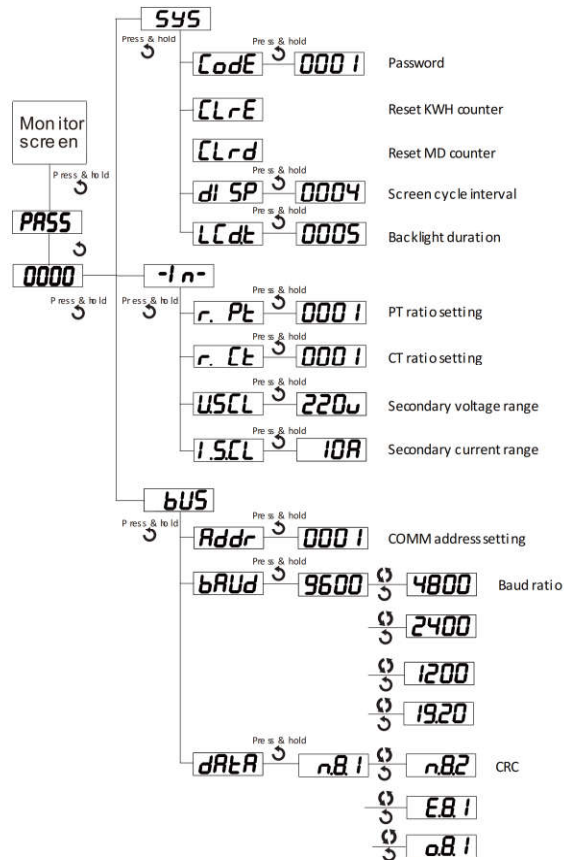
Wiring Notes!!

- Must choose suitable cable size to connection, please refer the meter measurement range and actual load condition.
- The communication wire must use shielded twisted pair.
- Communication line RS485+, RS485- cannot be reversed.
- If need long distance communication to host, must parallel connect 100~120ohms resistor in both terminal of host to slave.
- In 9600 baud rate, the cable length should less than 1200 meters.

5. Operation menu description

In regular measurement screen, press and hold  button can access operation screen. Panel main area will show "Pass" for ask password, then press and hold  button can entry password (default are 0001)

Menu tree stretcher



MODBUS register map:

Primary side parameters				
Address	Data	Byte mode		Notes
0x00	U	float	2	Phase to Line Voltage, Unit: V
0x0c	I	float	2	Current, Unit: A
0x12	P	float	2	active power, Unit: kW
0x1a	Q	float	2	reactive power, Unit: kVar
0x22	S	float	2	apparent power, Unit: kVA
0x2a	PF	float	2	power factor, 0~1.000
0x32	FR	float	2	Frequency, Unit:0.01Hz
0x34	Ep+	float	2	Positive active energy, Unit: kWh
0x36	Ep-	float	2	Negative active energy, Unit: kWh
0x38	Eq+	float	2	Inductive reactive power, Unit: kVarh
0x3a	Eq-	float	2	Capacitive reactive power