



# DDSD101- KT6

## Single Phase Smart Prepayment Meter

Designed for residential and small commercial consumers

Providing a strong foundation for your Smart Grid initiatives

[www.wasion.com](http://www.wasion.com)

Description	Value
<b>Voltage</b>	
Reference voltage	230V
operating voltage range	60%-130%Un
<b>Current</b>	
Basic current	5A
Maximum current	80A
Starting current	0.4%Ib
<b>Accuracy</b>	Class 1.0for kWh
<b>Frequency</b>	
Rated frequency (fn)	50Hz or 60Hz
Frequency range	± 2%
<b>Pulse constant</b>	Default: 1000 imp/kWh
<b>Temperature</b>	
Normal Operation range	-25°C to +55°C
Limit operation range	-40°C to +70°C
Limit range for storage and transport	-45°C to +85°C
<b>Humidity</b>	Up to 95% non-condensing
<b>Power Consumption</b>	
Power consumption in voltage circuit (active)	≤2 W
Power consumption in voltage circuit (apparent)	≤10 VA
Power consumption in current circuit	≤2 VA
<b>Insulation Strength</b>	
AC voltage test	4kV
Surge Withstand	6kV
Protection class	Class II
<b>Electromagnetic Compatibility</b>	
Electrostatic discharges	Contact 8kV, air 15kV
Fast transient burst	4kV
Immunity to Impulse voltage (IEC62052-11)	6 kV
Immunity to electromagnetic RF fields	10V/m at reference current, 30V/m without current

<b>Protection degree</b>	IP54 Indoor
<b>Breaker</b>	Bi-stable relay
<b>Lifetime</b>	10000 cycles at $I_{max}PF=1$ and $PF=0.5L$
<b>Performance</b>	UC2 or UC3
<b>Maximum switching Voltage</b>	250VAC
<b>Maximum switching current</b>	90A
<b>Maximum switching power</b>	22.5kVA
<b>Lifetime</b>	$\cong$ 15 years

## ■ Main Functionalities

### ➤ Measurement

- 2 element, 4 quadrant
- Instantaneous Vrms, Irma, Frequency, PF, kW, kVA, kVAR, kVA
- Lots of energy and demand registers (A+, A-, R+, R-, +Ri, +Rc, -Ri, -Rc)

### ➤ RTC

- Clock accuracy (daily deviation):  $\leq 0.5s/day$
- Gregorian calendar
- Automatic leap year switch

### ➤ Tariff

- Up to 8 tariff
- Up to 208 exception day/Holiday
- Up to 14 seasons and 8 week tables
- Up to 8 day tables and each table has 14 entries
- Active and passive calendar support

### ➤ Battery backup

- Flexible backup power for RTC, including replaceable battery or super capacitor

### ➤ Load control

- Remote control command support
- Over current control support
- Power limit support

### ➤ Firmware upgrading

- The firmware can be upgraded via optical interface and WAN interface.

### ➤ Profile

- Energy and power profiles (30min(default), up to 20 channels, up to 85 days)
- Daily profiles (24h, up to 4 channels, up to 32 days)
- Month billing profiles, Up to 13 billing records and 32 channels
- Configurable interval and capture objects of load profile

### ➤ Event record

- Fraud detection (Meter cover, terminal cover, current reverse, magnetic detect etc.)
- Failure detect (Memory error, relay error, battery low voltage, clock invalid etc.)
- Power quality event (Under voltage /Over voltage (Sag/Swell), Power up/down, etc.)
- Over current / current imbalance
- Security event (Parameters change, clock adjust, etc.)
- Standard event log (pay mode switch, firmware upgrade, etc.)

### ➤ Prepayment function(optional)

- Configurable prepayment and post-payment mode
- Three levels for remaining credit alarm
- Emergency credit, friendly time and friendly days support

### ➤ STS token for prepayment (optional)

- 20 digits token for credit and parameters transfer
- Credit token, Key change token, clear balance token, clear tamper token, set power limit token, test token etc. fully comply STS standard

### ➤ Disconnect control(optional)



- Over power limit disconnect and reconnect automatically according to configurable delay time
- Tamper disconnect(meter cover removed, terminal cover removed, magnetic detection)
- No credit disconnect , reconnect by charge
- Disconnect or reconnect control by remote

➤ **WAN communication(optional)**

- Plug and play module to support various communication technology
- G3 PLC or BPLC
- GPRS
- Protocol: DLMS/COSEM

➤ **HAN communication**

- RS485
- Built-in RF module or FSK PLC

- Communicate with in-home display
- Protocol: DLMS/COSEM

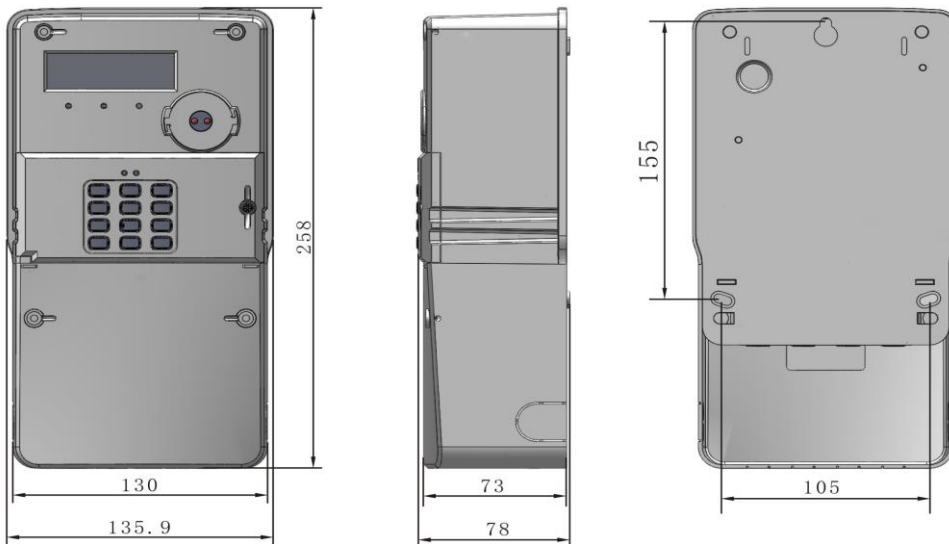
➤ **Optical port**

- Comply with IEC62056-21 standard
- Protocol: DLMS(IEC62056-21 mode E)

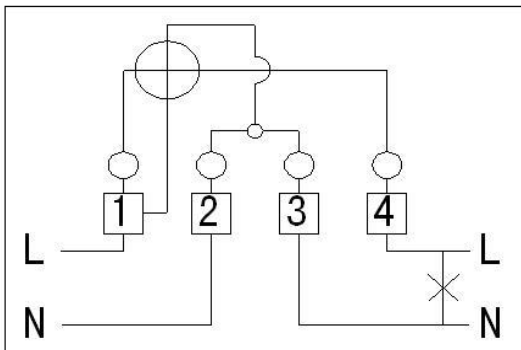
➤ **Security(LLS or HLS)**

- LLS support 3 level passwords for local and remotely communication
- HLS support authentication and encryption for local and remotely communication

### ➤ Meter Installation Dimensions



### ➤ Meter Wiring



### ➤ Certificates

