

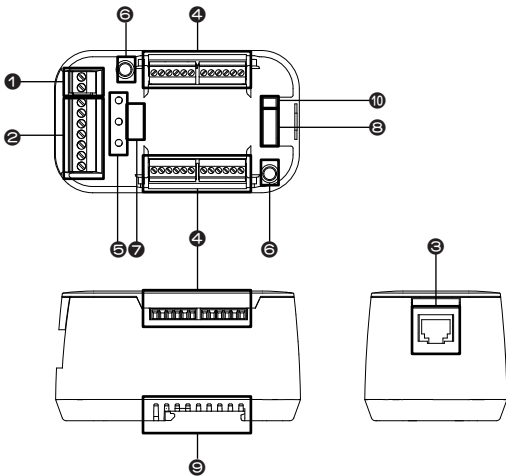
gems3520-WM12 Smart Multi-Channel Meter



Multi-channel meter capable of monitoring multiple powers with one device
 Up to 12 single phase or 4 3P4W feeders power monitoring
 Measurement : V (L-N, L-L) , A, Hz, PF, Unbalance, Power(P,Q,S),
 Energy (P,Q,S), etc.
 0.5 / 1.0 Class accuracy according to IEC62053-21 / 22
 Flexible application for the 3phase4wire/ 3phase3wire power line
 Total Harmonics Distortion (THD)
 Support Ethernet communication, RS485 and Wi-Fi (with external antenna)
 Support Cloud energy platform
 Compact size to easy install in narrow space (67 x 106 x 65.5 mm)
 Strong structure against dust using the removable top cover

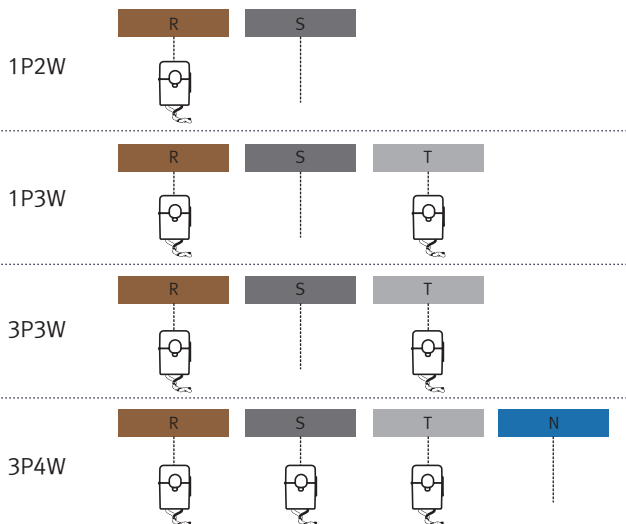


Terminals Description



| | |
|----------------------------------|--|
| 1 Control Power | Control Power (AC/DC 100~240V), Wire Size : 12 ~ 24AWG N : Neutral (AC) Connection, A: Line (AC) connection |
| 2 Voltage measurement | Voltage input terminal for measurement, Wire Size : 12 ~ 24AWG |
| 3 Ethernet Port | Upper system connection port protocol : Modbus TCP/IP(Slave),Cloud Speed : 10/100 |
| 4 CT input terminal | Current input terminal |
| 5 Status LED | |
| 6 Wall mount Hall | Fixing Bolt Spec. : Ø 4mm |
| 7 Upgrade terminal | Terminal for upgrade |
| 8 Expansion port | Provides RS485 extension function, RS485 gender AC03 |
| 9 DIN rail fixing device | |
| 10 WiFi external antennaterminal | |

Wiring Diagram



Ordering code

gems3520-WM12

| Example of ordering code | Description |
|--------------------------|---------------------------------|
| gems3520-WM12 | 333mV CT, 12ch WiFi Function |

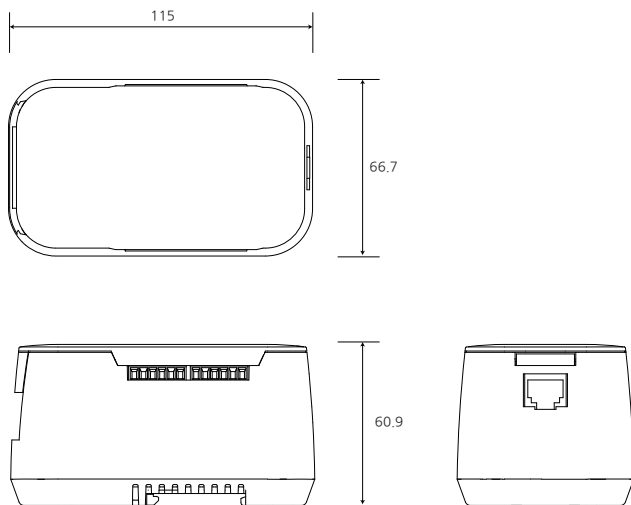
액세서리 리스트

| Accessory | Description |
|-----------------------|----------------------|
| CT | Refer CT list |
| CT Cable | Refer cable list |
| SMA extension cable | WM-SMA Cable (600mm) |
| WiFi external antenna | IPX SMA Antenna |
| RS485 gender | AC07 |
| AC07 Cable | Refer CT list |

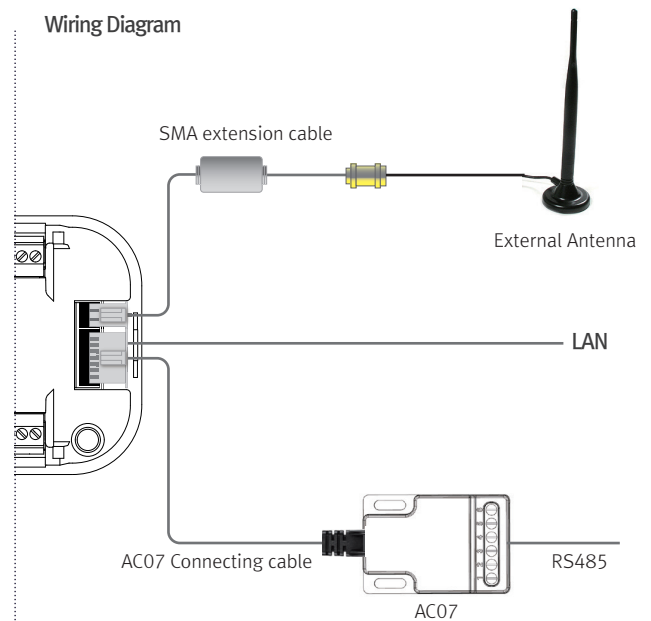
Smart Multi-Channel Meter

Dimension

: gems3520-WM12 Main Body



Wiring Diagram



SPECIFICATIONS

| | |
|--------------------------|--|
| Model | gems3520 |
| Channel Numbers | 12CH |
| Applied Voltage | Max 690VAC(L-L @ 1P2W, 3P4W) Max 690VAC(L-L @ 1P3W, 3P3W) |
| Standards | IEC-62053-21/22 |
| Voltage Input | |
| Voltage Rating | Up to 690VAC (Line to Line) Phase V : V1, V2, V3 - N (240VA max) Line V : V1-V2, V2-V3, V3-V1 (415VA max) Accuracy : F.S. 0.5 % |
| Voltage Unbalance | Phase, Total Digit : 655.35 Unit : % |
| Frequency | 45~65Hz Accuracy : ± 0.02 Hz |
| Current Input | |
| Current Rating | Primary : 50 ~600A/CH Max 3,000A/CH Accuracy : F.S. 0.5 % , 1% |
| Current Unbalance | 1. Phase 2. Total (with 3CT wiring) 3. Digit : 655.35 4. Unit : % |
| Power Measurement | |
| Active | Accuracy : 0.5 Class Digit : 999,999,999 Unit : W |
| Reactive | Accuracy : 1.0 Class Digit : 999,999,999 Unit : Var |
| Apparent | Accuracy : 0.5 Class Digit : 999,999,999 Unit : VA |
| Harmonics | THD (%) Harmonic reactive power |
| Power Factor | PF : -99.9 ~ +100 Unit : VA |
| Active Energy | Digit : 999,999,999.9 Unit : kWh |
| Reactive Energy | Digit : 999,999,999.9 Unit : kVarh |
| Apparent Energy | Digit : 999,999,999.9 Unit : kVAh |

Others

| | |
|---------------|--------------------------------------|
| Sag/Swell | Min. 1/2 cycle |
| Control Power | 100~240VAC/DC(85~110%, Free Voltage) |

Environment

| | |
|-------------|--|
| Temperature | -10 ~ 55 °C (Operation) -25 ~ 70 °C (Storage) |
| Humidity | 30~ 85% RH (non-condensation) |

Communications

| | |
|---------------|-------------------------|
| Serial port | RS485 : 1Port |
| Ethernet Port | 10/100 Ethernet 1Port |
| Protocol | Modbus TCP, Modbus RTU |
| Wireless | Wi-Fi(external antenna) |

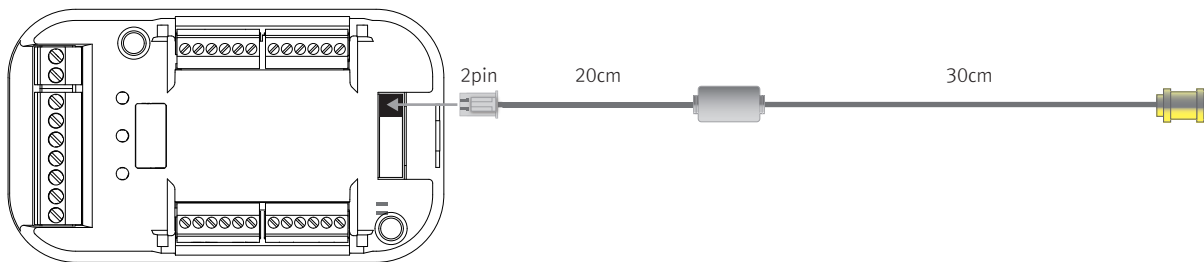
EMC

| | |
|--------------|---------------------------------------|
| IEC61000-4-2 | Electrostatic discharge (ESD) Level 3 |
| IEC61000-4-3 | Radiated disturbance Level 3 |
| IEC61000-4-4 | EFT / Burst Level 3 |
| IEC61000-4-5 | Surge Level 3 |

Applied CT

| | |
|-------------------------------------|-------------|
| - Split Core-CT | |
| NJ16FL-100(16 ϕ) | : 100A |
| JC16F-100(16 ϕ) | : 100A |
| JS17F-050(17 ϕ) | : 50A |
| JS17F-100(17 ϕ) | : 100A |
| JS24F-200(24 ϕ) | : 200A |
| JS24S-250(24 ϕ) | : 250A |
| JS36S-400(36 ϕ) | : 400A |
| JS36S-600(36 ϕ) | : 600A |
| - Rogowski Coil CT | |
| JRFS-120A | : Max 3000A |
| JRFS-190A | : Max 3000A |
| JRFS-305A | : Max 3000A |
| - Solid type GCT | |
| G3CT-400-140F(3Phase, 400A, 140mm) | |
| G3CT-250-105F(3Phase, 250A, 105mm) | |
| G3CT-125A-90F(3Phase, 125A, 90mm) | |
| G3CT-100A-75F(3Phase, 100A, 75mm) | |
| G3CT-50A-75F(3Phase, 50A, 75mm) | |
| G1CT-30A-35F-C(1Phase, 30A, Center) | |
| G1CT-30A-23F-S(1Phase, 30A, Side) | |

SMA extension cable

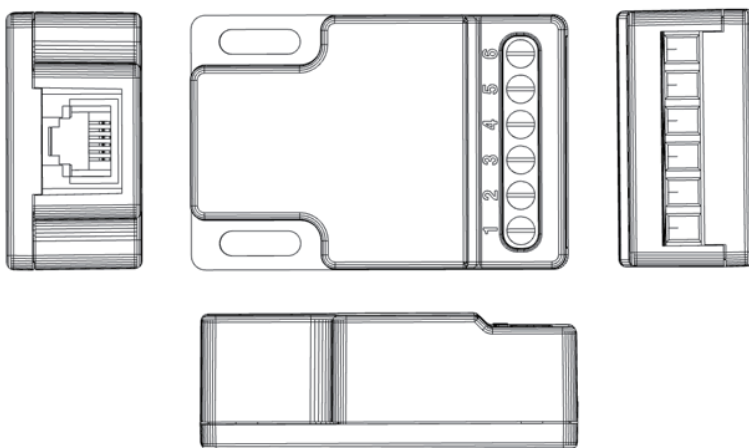
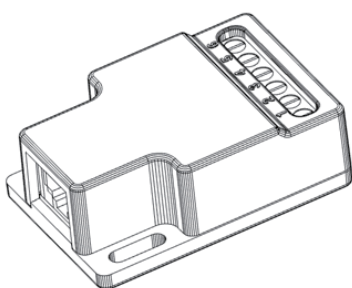


WiFi External Antenna



AC07-RS485 gender

Size : 53.5 x 36 x 21 mm



| # | Function | # | Function |
|---|----------|---|----------|
| 1 | 485-TRX- | 4 | 485-TRX- |
| 2 | 485-TRX+ | 5 | 485-TRX+ |
| 3 | GND | 6 | GND |

AC07 Connecting cable

