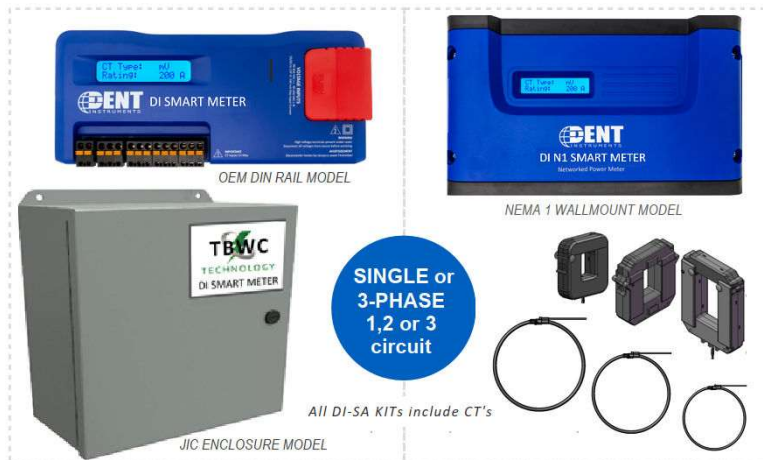


NETWORKED SINGLE & 3-PHASE SMART METER KITS

REVENUE GRADE INSTRUMENTS FOR SUPERIOR ENERGY MEASUREMENT



DI-SA SMART METER KITS

Submetering Made Easy! Whether monitoring a single circuit or a facility's main service entrance, Industry Professional count on DI Smart Meter Kits to accurately deliver the energy use information needed for Energy Management, Energy Conservation, utility cost allocation and recovery applications. Easy-to-install, easy-to-own and easy-to-manage, DI Smart Meters are designed to accurately and reliably deliver the data you need over the life of the system.

REVENUE-GRADE PERFORMANCE

With a high-speed, continuous input sampling rate of 1 Hz, ANSI C12.20-2015 Class 0.2 revenue grade accuracy can be achieved. All DI-SA Smart Meters are well-suited for accountability metering in commercial, retail, and industrial facility for demand response, energy management and tenant based submetering

LINE VOLTAGE POWERED

DI-SA Smart Meters are designed to be powered from the same voltage as the load monitored, saving time and money installing. Designed to offer year of hassle-free duty, meter can be retro-commissioned, field reprogrammed and redeployed to a new location as facility or application changes may occur.

ADVANCED COMMUNICATIONS INCLUDED

DI-SA Smart Meters support both Modbus, (reference SunSpec IEEE-754) and BACnet communications protocols. The meter communications interface is accomplished via serial RS-485 (Modbus RTU or BACnet MS/TP) or via Ethernet (Modbus TCP or BACnet IP) networks, or via a Static IP Modem.

READY TO INSTALL SUBMETERING KITS

DI-SA Smart Meter Kits include CTS and NEC required instrument overcurrent protection. Available in NEMA 1 wallmount, JIC and NEMA 4X, 6P non-metallic enclosures for safety, security, & protection from the elements in all applications.

POWERFUL & COST-EFFECTIVE

Line powered and designed to operate on any voltage from 90-600VAC, meters are shipped pre-configured to match your specific project or application. Units feature a USB utility port to enable quick and accurate field installation. An on-board LCD display with thumb wheel makes it easy to verify proper setup.

POWERFUL TROUBLESHOOTING

Patented circuitry immediately identifies installation errors. HD Series software can be downloaded at no-charge when advanced analytics such as waveform visualization, vector polar plotting, and harmonic distortion analytics are required.

POWERED BY



APPLICATIONS

- Tenant Submetering
- Bi-Directional Metering
- Data Centers
- Real-Time Power Monitoring for Saving, Energy Management, Load Segregation & Cost Allocation



FEATURES

- 3 channels: 3-phase submeter monitors voltage, current, power, energy, and many other electrical parameters on single or three phase systems
- Secure wall mount JIC 3R, 4, 12 & 13 environmental or NEMA 1 indoor enclosure
- Revenue grade. ANSI C12.20-2015 Class 0.2 certification.
- Interval Data Recording: Store up to 63 days of 15-minute kWh consumption data
- Continuous sampling: No blind cycles
- DI Smart Meter Kits are pre-configured and supplied with Solid, Split-Core or Rope Style CTs from 1 to 5000 amp rated
- Line-Powered: 90-600V phase-to-phase
- Display shows real-time information regarding the meter configuration and metered data
- Communicate via industry standard BACnet or Modbus serial or IP protocols
- User-configurable alarm with isolated output
- Data is updated every 1.0 second
- On-board diagnostics confirm proper installation and commissioning
- UL Listed, CE Mark, BTL Certified
- Advanced technology enables units to be easily field reconfigured to meet facility changes and energy monitoring needs.
- Most cost-effective high-density submetering solution available in the industry today.



NETWORKED SINGLE & 3-PHASE METERS

REVENUE GRADE INSTRUMENTS FOR IOT ENERGY MANAGEMENT

BUILD AN INTELLIGENT METER KIT TO MATCH YOUR SPECIFIC APPLICATION

All models equipped with BACnet and Modbus IP or Serial communications*.

SINGLE-POLE: 90-600V, 2-Wire, Single- ϕ (1) SPLIT-CORE CT

DI-2W/AMP-PKG-KIT.XX

TWO-POLE: 90-600V, 3-Wire, Single- ϕ (2) SPLIT-CORE CT

DI-3W/AMP-PKG-KIT.XX

3-PHASE: 90-600V, 4-Wire Wye, Three- ϕ (3) SPLIT-CORE CT

DI-4W/AMP-PKG-KIT.XX

(NOTE: *For 3-phase, 3-Wire Delta applications, use the "3W" model, only (2) CTs are required.)

TO COMPLETE YOUR PART # SELECT ONE FROM EACH OF THE FOLLOWING:

AMP Amperage: 20 / 50 / 100 / 200 / 400 / 800 / 1200 / 1600 / 2000 / 3000 / 5000

PKG Packaging: 'N1' Nema 1 / 'JIC' 3R/4 steel / 'N4X' Non-Metallic

*.XX Pre-programmed Communication Protocol Options.

● Serial RS-485: '.02' Modbus RTU (default) or '.03' BACnet MSTP ● Ethernet: '.04' Modbus TCP/IP or '.05' BACnet IP

PART # EXAMPLES:

DI-2W/50-N1-KIT.02 120-600 Volt, 50 Amp, Single-Phase, NEMA 1 wallmount meter, (1) CT; Modbus RTU
DI-3W/100-JIC-KIT.04 208-600 Volt, 100 Amp, 2-Pole Single- ϕ Meter, JIC steel enclosure, (2) CTs; Modbus TCP/IP
DI-4W/400-N4X-KIT.05 480-600 Volt, 400 Amp, 3-Phase Meter, NEMA 4X non-metallic enclosure, (3) CTs ; BACnet IP

ADDITIONAL SMART METER DETAIL & OPTIONS:

- For Solid-Core CTs, *change suffix "-KIT" to "-SCCTKIT"* 100, 200 or 400 Amp. Special order for higher ratings.
- 5000-Amp models feature flexible rope CTs with opening = 5.0" diameter.
- For larger FRCT openings, add suffix "**-7.5**" for 7- $\frac{1}{2}$ inch or "**-11.5**" for 11- $\frac{1}{2}$ inch diameter.
- DIN Rail mount models for OEM or specialty applications available. Consult TBWC Tech for more info.
- NOTE: NEC Overcurrent Protection: DI meters have internal, NEC compliant overcurrent protection built in, If voltage to the meter is > #12, proper OCP device is required. See TBWC OCP Tech sheet for detail.
- Optergy Proton browser based Automatic Meter Reading / Energy Management software appliance. Base model supports up to 10 Meters, upgradable to 100. Tenant Billing option for 3 to 60 Tenants.
- Scalable Enterprise Energy Management AMR/EMS Server Software for large and portfolio systems.
- Secure, private wireless Internet service; system and meter reading wellness service plans available.

DI-SMART METER
PACKAGING
"PKG" OPTIONS



NEMA 1 WALLMOUNT MODEL



JIC ENCLOSURE MODEL



NEMA 4X NON-METALLIC ENCLOSURE

DI Smart Meter KITS

Dimensions & Estimated Ship Weight:

N1-KIT (H) 5.50" x (W) 10.12" x (D) 2.12"
JIC-KIT (H) 10.0" x (W) 12.0" x (D) 5.00"
N4X-KIT (H) 10.00" x (W) 12.0" x (D) 5.00"

WT. 12-15 LBS
WT. 19-22 LBS
WT. 15-18 LBS

NEMA 1 Wall Mount
NEMA 3R, 4/12 Security Enclosure
NEMA 4X, with Viewing Window Display

PS3HD Certificate of Calibration

Meter Information

Test Date: 1/5/2023

Test Time: 1:11 PM

Serial #: P032301044

Technician: 'ALS'

Program Version: 2.61

DI Part #: PS3xxxxx

MAC ID: 00:0D:63:33:1D:A6

Wireless MAC ID:

Meter Measurements

Voltage Measurement	Voltage Reading	Voltage Reference	Percent of Error	Pass/Fail
VEN1-L1	200.025	200.042	-0.007	PASS
VEN1-L2	200.061	200.071	-0.015	PASS
VEN1-L3	199.996	199.991	0.002	PASS
Element A Current	Amperage Reading	Amperage Reference	Percent of Error	Pass/Fail
CT1	100.005	100.004	0.001	PASS
CT2	99.997	99.994	0.003	PASS
CT3	100.001	99.999	0.003	PASS

Calibration Reference Instruments Used

Reference	Make	Model	Serial #
Reference	Radian	RS-30	710502

HiPot Test

Make	Model	Serial #
VITREK	V710	25441
Voltage	Leakage Current (mA)	Result
1250.0	5.13	PASS

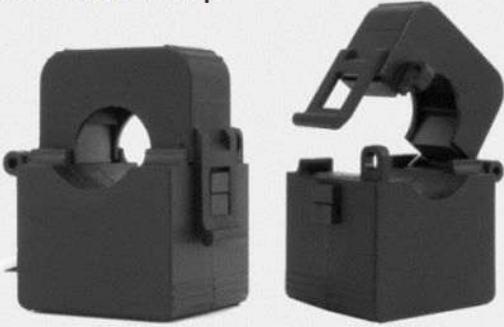
The equipment used to calibrate this device has been calibrated by a certified ISO 17025 laboratory accredited by A2LA, using standards that are traceable to the National Institute of Standards and Technology (NIST).

All meters tested to ANSI C.12.11.20.2 prior to shipment
Certificate of Calibration test report supplied with each

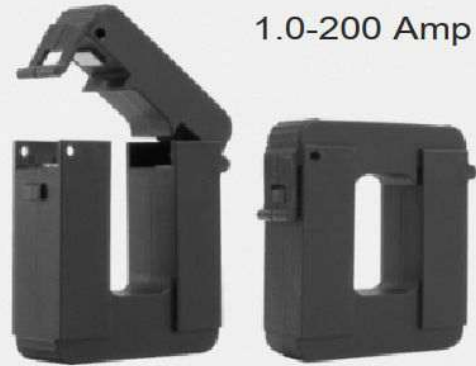
SPLIT-CORE CT's

0.333mV CURRENT TRANSFORMERS

0.5-100 Amp



1.0-200 Amp



2.0-400 Amp



4.0-800 Amp



Notes:

All DI-SA Smart Meter Kits supplied include CT's. CT's for DI-HD MMU High-Density Meter models must be ordered separately.

CT's can be installed up to 500 feet away from both DI-SA stand alone or DI-HD high density smart meters.

Split/solid-core and flexible rope CT's are equipped with 12" to 36" lead lengths that can be field extended using the appropriate twisted pair and shielded cable.

Please see the following page for specifications and CT lead length extension cables offered.

Reference NEMA, NEC and local electrical code rules for proper installation guidelines.

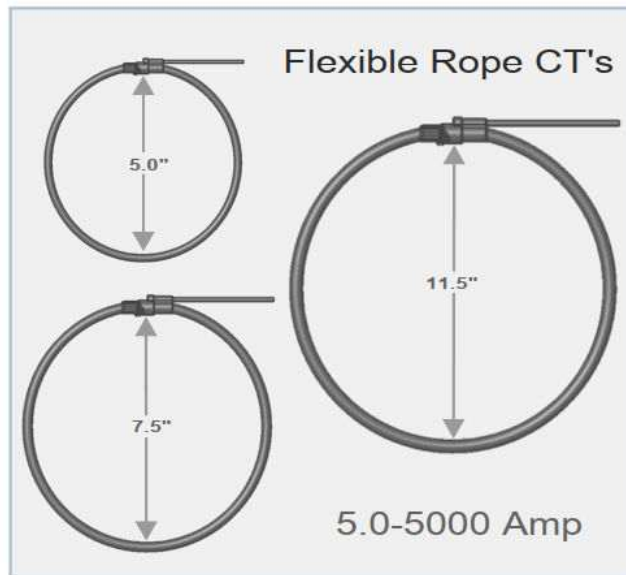
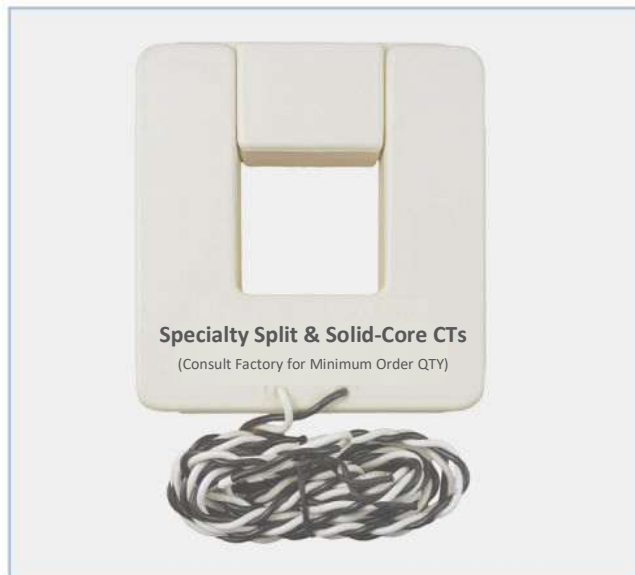
Split-Core Model Numbers

Model #	Amperage	Window Dim.	Weight
20A-CT	20	0.40"x 0.40"	0.35 lbs
50A-CT	50	0.72"x 0.62"	0.55 lbs
100A-CT	100	0.72"x 0.62"	1.25 lbs
200A-CT	200	1.0" x 1.40"	1.75 lbs
400A-CT	400	1.3" x 1.70"	2.00 lbs
800A-CT	800	1.63" x 2.50"	2.50 lbs
1200A-CT	1200	2.0" x 5.50"	4.00 lbs
1600A-CT	1600	2.0" x 5.50"	4.00 lbs
2000A-CT	2000	2.0" x 5.50"	4.00 lbs

NOTE: Higher amperage rated CT's, models with a larger or smaller opening, or units customized to suit your specific application are available on request. Please contact TBWC for more information.

SOLID-CORE & FLEXIBLE ROPE CT's

0-0.333mV & 0.131mV/1000



SOLID-CORE CT's



CT LEAD-LENGTH EXTENSION CABLE



Flexible Rope CT Model Numbers

Model #	Amps	Length	Weight
5000A-FRCT-5.0	5000	16.0"	0.85 lbs
5000A-FRCT-7.5	5000	24.0"	1.25 lbs
5000A-FRCT-10.5	5000	36.0"	1.60 lbs
5000A-FRCT-15.0	5000	47.0"	1.85 lbs

Solid-Core CT Model Numbers

100A-SCCT	50	0.6"	0.20 lbs
200A-SCCT	100	0.8"	0.20 lbs
400A-SCCT	200	1.4"	0.20 lbs

CT Lead Length Extension Cable

For Split or Solid-Core CTs, 20AWG Twisted Pair, 600V
CBL-SOSCCT-(CTL)
Specify CT Cable Length in feet: CTL = 250, 500, 1000

For Flexible Rope CTs, 26AWG Shielded Cable, 1000V
CBL-ROCOIL-(RCT)
Specify Rope CT Cable Length in feet = 328, 820, 1640

** IMPORTANT **

When looking from the source side of the load(s) being monitored, you should see an arrow on the CT assembly, with the direction of the arrow pointing clockwise around the conductor(s) being monitored.

If the arrow is not on source side, inaccurate readings may result.