

Ideal for Renewables!



DTS DC

DC Energy Sub-meter with Remote Communications

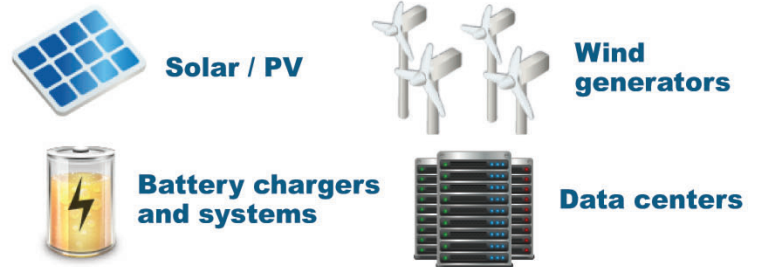
Versatile and Easy to Configure!



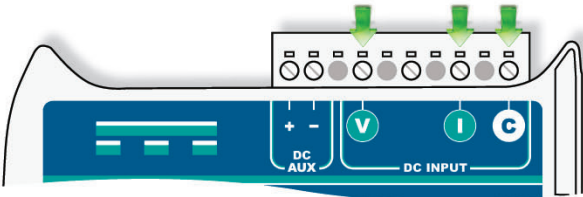
FEATURES

- DC power / energy sub-meter provides Voltage, Current, Power and Energy measurements
- Bi-directional for renewable systems (**NET** metering)
- Interfaces with shunt or external Hall Effect current sensors
- 0-400Vdc or 0-800Vdc Voltage input ranges
- **Embedded Ethernet connectivity** - Modbus/TCP, BACNet/IP or DNP 3.00
- RS-485 connectivity - Modbus RTU
- Communications setting via DIP switches for Modbus RTU protocol
- **Pulse output standard**
- 2 digital status/counter inputs OR digital outputs - optional
- Compact DIN rail design
- User configurable using DTS Config software
- User-definable Modbus register area

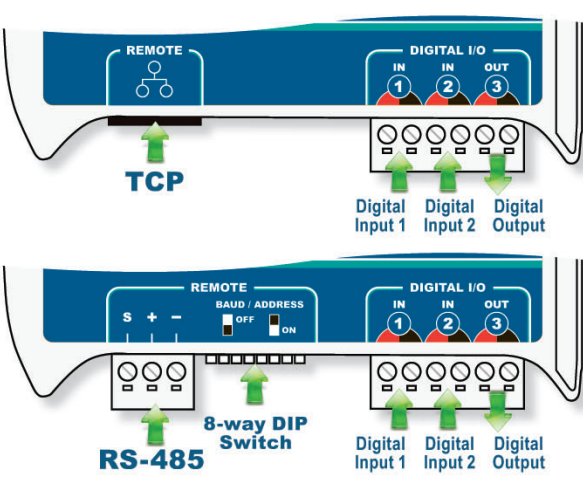
APPLICATIONS



INPUTS



COMMS & I/O



MEASUREMENT PARAMETERS*

	DTS DC
Measurements	
DC Volts (Instantaneous, Max and Min)	✓
DC Current (Instantaneous, Max and Min)	✓
Power	
DC Power - kW (consumed/generated)	✓
Bi-directional for renewable systems	✓
Energy	
DC Energy - kWh (consumed/generated)	✓
Setpoints, Alarms, Control	
Digital Outputs	1 – 3
Status / Counter Inputs	2
Communications	
Modbus RTU	✓
Modbus TCP	✓
BACNet / IP	✓
DNP 3.00 over IP	✓

* Model dependent ** CTs excluded

Call Toll Free: 1-877-PQ-SOLNS (1-877-777-6567) or 303-805-5252 email: info@measurlogic.com

MEASURLOGIC

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SPECIFICATIONS*

Voltage range: 0 - 50, 150, 400 or 800Vdc
 Permanent overload: 1.2 x
 Input Impedance: 1MΩ for 400Vdc range & 2MΩ for 800Vdc range
 Current Input Options: 0 - 10A (direct input)
 >10A (external current shunt or Hall effect sensor)
 Permanent overload: 1.25 x In
 Shunt: 50 - 100mV (configurable)
 Hall Effect sensors: 0-4Vdc or 0-5Vdc
 0-20mA or 4-20mA

Accuracy:
 Voltage: 0.5% (10-110%)
 Current: 0.5% (10-120%)
 Power: 0.5% (10-120%)
 Energy: 0.5% (10-120%)

Aux Supply:
 Voltage options: 12Vdc, 24Vdc or 48Vdc
 Burden: <3VA
 Operating temp: -4° to 131°F (-20° to 55°C)
 Tolerance: -25%, +50%
 Storage temp: -40° to 185°F (-40° to 85°C)
 Humidity: 5 to 95% R.H. non-condensing

Mechanical:
 Connection: Pluggable screw terminals suitable for 12AWG stranded wire (2.5mm²)
 Case Material: Self-extinguishable, V0 plastic
 Protection: Nema 1 (IP40)
 Dimensions: 4.73"(120mm) H x 4.25"(108mm) D x 1.38"(35mm) W
 Weight: 1lb (0.45 kg)

Communications: (Serial)
 Connection: 3 way pluggable, screw terminal suitable for 12AWG stranded wire
 Protocols: Modbus RTU

Communications: (Ethernet)
 Connection: RJ45, 10/100Base-T
 Protocols: Modbus TCP or BACNet/IP or DNP 3.00 over IP

I/O OPTIONS:
Digital Output: (Solid State Relay)
 Type: Potential free, S.S. N.O. contact
 Connection: Isolated Pin-Pair (output 3)
 Max On-Resistance: 30 ohm
 Max switching voltage: 240Vac
 Max switching current: 120mA
 Peak load current rating: 350mA for 10mseconds

Status Inputs: (Opto-Coupler)
 Type: Dry Contact / NPN Open Collector
 Connection: 2 Pin-Pairs (Outputs 1 and 2)
 Max current: 15mA
 Max voltage: 18V
 Switching Current: Min 3mA

Standards & Safety:
 ETL listing: Pending
 Designed to: UL Std 61010.1
 CSA Std C22.2 # 61010.1
 EMC: IEC 61000-6-3 Emissions, IEC 61000-6-2 Immunity, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
 FCC: CISPR 22/FCC 15 class A
 Other: IEC60688
 Category III - 280Vac / 485Vac



MODEL NUMBER BUILDER*

DTS DC - **a b** - **c d** - **e** - **f** - **g**

Voltage & Current Inputs

a: S = 50-100 mV shunt
 I = external hall effect (20 mA)
 V = external hall effect (5 Vdc)
 D = 0-10 A direct
b: 1 = 50 Vdc
 2 = 150 Vdc
 4 = 400 Vdc
 8 = 800 Vdc

Communications

c: S = Serial
 E = Ethernet
d: M = Modbus
 B = BACNET
 D = DNP 3.0

I/O**

e: N = Not fitted
 P = Digital output (PhotoMos relay)
 A = 2 x Digital Inputs (Potential free) & 1 x Digital Output (PhotoMos relay)
 **Other configurations available

Aux Supply

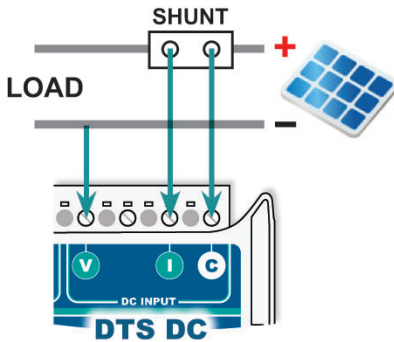
f: 3 = 24 Vdc
 5 = 48 Vdc
 6 = 12 Vdc

Current Range

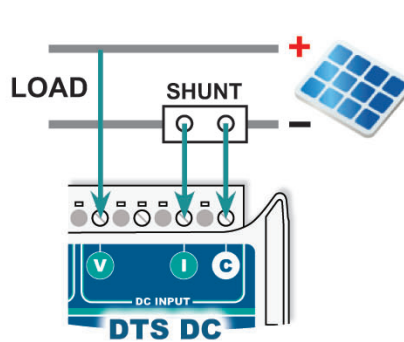
g: = Amperage of sensor
 = "Blank" if no external sensor supplied

CONNECTIONS (SHUNT OR DIRECT)

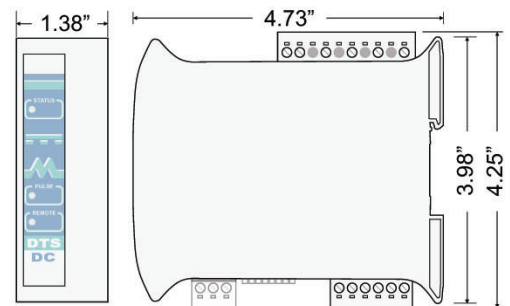
Current Measurement in POSITIVE Leg



Current Measurement in NEGATIVE Leg



DIMENSIONS



Distributor:

Call Toll Free: 877-PQ-SOLNS (877-777-6567)

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