# S-20
## Digital Electric Socket Meter

## Remote Data Transfer Through Power Line Communications Technology

- Solution for Commercial, Residential or Industrial Applications
- Available in Standard ANSI Forms
- Interval Data & Time of Use Capability
- Load Profiling
- Collects Data From Water & Gas Meters
- Easy to Install
- Proven Accuracy-ANSI and IEC 687 Compliant

For over 25 years, Quadlogic has been using a patented Power Line Communications technology to transmit meter data over buildings' existing power lines. No additional wiring or meter readers are required. Leading property management companies all over the world depend on Quadlogic systems to provide reliable and accurate electric meter readings. Quadlogic meters provide all the data you need to bill tenants, allocate energy costs and make smart energy decisions.

## Features

**Easy To Install**
Plug-in utility design allows installation in minutes

**Integrated Power Line Communications**
Utilizes existing electrical wiring for communications Requires no dedicated hard wires, additional modules or attachments for communications

**Flexible Data Programming**
Interval data down to 5 minutes allows flexible load profiling and Time of Use billing options

**Accurate**
Meets ANSI C12.1, C12.16, IEC 687 specifications and stringent requirements of Measurement Canada (AE-1042)

**Comprehensive Information**
Event and alarm reporting with date and time stamps regarding power consumption, demand resets, power ups and power downs, time changes, tampers, etc...

**Liquid Crystal Display**
LCD provides access to data

**Multi-utility Submetering System**
Integrates and stores pulse data from gas and water meters

**Power Quality Data**
Measures four-quadrant energy to analyze power quality

**Tamper Resistant**
Rugged enclosure design with tamper-resistant seal

**Data Integrity**
Utilizes flash memory for accurate data storage and integrity without battery reliance

**Installation Verification**
Display allows on-site verification of proper installation

**Manufacturer's Warranty**
Three year meter warranty

**Easy Access To Data**
Software package available for on or off-site meter reading

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# Series-20 Technical Specifications

## Metering Specifications

| | |
|---|---|
| **Metered Voltage:** | 120, 220, 240, 277, 347, 380, 480, 600 |
| | Delta or Wye, 50/60 Hz |
| **Current Input:** | CL10, CL20 and CL200 available |
| **Four quadrant Consumption & Demand:** | |
| | Delivered and received: kW, kVARLeading, kVARLagging, & kVA |
| | Volts-squared hours & amp-squared hours |
| **Programmable interval data & peak demand:** | |
| | 5 min to hourly window |
| | Block or rolling block demand |
| | Meter total and/or by phase |
| **Real time per phase:** | Voltage, current, phase angle, power factor, THD, |
| | watts, VARs, VA and frequency |
| **Time of Use:** | Up to 16 blocks and 48 slots per day available for all metering |
| | parameters (accomodates seasons, holidays and daylight savings) |

**Meets ANSI C12.1, C12.16, IEC 687 and Measurement Canada**

**ANSI Optical Communication Interface (Standard Feature)**

## Additional Features

| | |
|---|---|
| **Pulse Datalogger:** | Up to 4 Form A pulse inputs |
| | Pulses can be logged in programmable intervals |
| | Pulse will count during power outage |
| **Specifications:** | Min. wire gauge: 20 AWG |
| | Max. Length: 300 feet |
| | Max rate: 5 transitions/sec |
| | Min pulse width: 100 ms. |
| **Sealed Demand Reset:** | Allows local reset of peak demand register |
| **Data Integration Options:** | IQ Software |
| | MV-90 TIM module |
| | ASCII-based, open-data protocol |
| | Open-source data conversion program |

## Communications Options

Power Line Communications (standard feature)

Modbus RTU protocol (2-wire RS-485)

19.2K internal modem

Network data link (4-wire RS-485)

RS-232 serial port

## Accuracy

± 0.5% @ unity and 50% power factor; 1-100% of full-scale (excluding external CT error)

Test Mode

## Liquid Crystal Display

Push button scroll

32 digit liquid crystal display (16 digit x 2 rows)

6 whole digit consumption register

Data digit height: .31"

Programmable display scroll, decimal place display and unit values (kilo or mega)

## Operating Range

Voltage: Rated Voltage (90% to 110%)

Temperature:  (-20 C to +60 C)

Humidity:    0 to 95% R.H. (non-condensing)

Transient/Surge Suppression:  ANSI C37.90.1-1989

## Memory

512 kbyte non-volatile flash memory retains daily and interval data

During power outage:

 - Flash memory retains daily and interval data

 - Long-life lithium battery maintains time, logs incoming pulses and retains data acquired within the incompleted interval at the time of the outage

## Shipping Weight

1 meter box: 3.5 lbs        (1.59 kg)

8 meter box: 30 lbs        (13.61 kg)

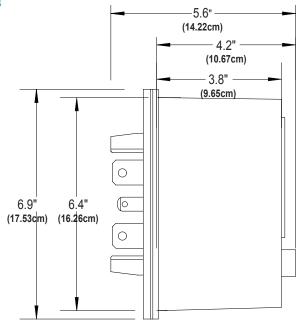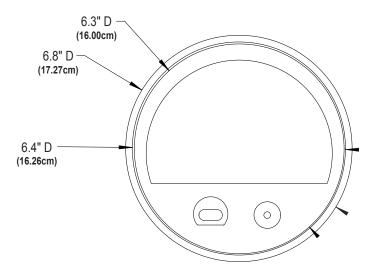# QUADLOGIC

# Series-20 Product Availability*

| Transformer Rated (Class 10) | Self Contained (Class 200) |
|---|---|
| Form 6S - 120V | Form 1S - 120V |
| Form 9S - 120V, 277V & 347V | Form 2S - 240V |
| Form 9S Alternative -480 & 600V** | Form 11S - 120V |
|  | Form 12S - 120, 480 & 600V |
|  | Form 16S (14S, 17S) - 120, 277 & 347V |

\*   **Consult QLC for availability of additional models**
\*\* **Consult QLC for installation diagram for Transformer Rated - Delta Voltage Applications**
   **(0.2 Class meter available in 9S model only)**

## Series-20 Dimensions

**QUADLOGIC**

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