



ACE Sparklet Modem

Communication technology is evolving rapidly with very short innovation cycles, thus the importance of making the right technical choice that ensures flexibility and adaptability of the chosen solution to secure the long term investment of meters.

In order to respond to the new challenges that utilities are facing, Itron has built upon its metering experience to deliver a complete range of communication devices suitable for all types of projects and environments.

Today the energy market requires on-time access to all metering information for a broad range of Smart Grid applications dedicated to monitoring and securing the network and the revenue; billing, load forecasting, renewable energy integration and energy management.

Managing the meter communication has become a vital part of the utilities' business process today and effective meter communication management will enable utilities to develop end-user services and energy demand management.

ACE SPARKLET

The ACE Sparklet modem is dedicated to large-scale industrial and commercial applications, where easy installation and optimised cost are key.

Extremely compact, the ACE Sparklet can be fully integrated under the terminal cover of the meter ensuring a fully secured solution, diminishing the risk of external fraud.

Thanks to the compact size and the light weight, it is just snapped into dedicated fixing points located in the terminal cover. No screws are needed.

The electrical link to the meter is facilitated by a single cable equipped with RJ45 Western jacks. This cable is used for data exchanges and to power on the modem.

By using the meter's power supply, this modem is ideal for installation in harsh environments but can be powered externally if required.

The Sparklet modem is able to manage the last gasp (alerts) when an outage occurs.

This modem has been designed by following the meter requirements. Firmware and configuration files are upgradable locally or remotely. By default, the manufacturing settings are coherent with those of the meter in such a way that it speeds up the installation process and commissioning.

Derived Variants

- » Based on the ACE Sparklet PSTN and GSM/GPRS models, some special variants have been derived to address specific market needs in terms of installation environment and operation. For example the ACE Sparklet design was kept functionally compliant to ERDF's PME/PMI specification

Technical Specifications

Common	ACE Sparklet features
Meter interface	RS232 or RS485 via RJ45
Housing	Polycarbonate
Installation	Under meter terminal cover or on DIN rails
IP protection	IP20
Dimensions	101 x 87.5 x 29.5mm
Power supply	10VDC, 100mA
GSM / GPRS	ACE Sparklet features
GSM / GPRS	Quad band 850/900/1800/1900 MHz
Transmission power	1W (1800/1900MHz), 2W (850/900MHz)
Connector	FME
Temperature range	-20°C to +65°C operating, -40°C to +85°C storage
Duty Cycle	Peak power backup via high performance capacitor
Number of LEDs	3 (Power, GSM signal strength, Connection status)
Other	Protocol tunneling, IP telemetry (IPT E-DIN43863-4), CSD call, Mediation Server support, Registration Server Support
LAN	ACE Sparklet features
Ethernet	IEEE 802.3, 10 Mbit/s
Protocols	TCP, IP, UDP, ICMP, DHCP, BOOTP, ARP, DNS
Others	AT command set (modem emulation)
Network Interface Connector	RJ45 Autosensing Base T
Temperature range	-20°C to +55°C operating, -25°C to +70°C storage
Number of LEDs	3 (Power, Link, Connection status)
PSTN	ACE Sparklet features
Modulation	V21, V22, V22bis, V23, V32, V32bis, V90
Data correction/ compression	MNP2-4, V42/ MNP5 V42.bis
Conformity	CTR21
PSTN network connection	2 screw terminals (PSTN cables optional)
Temperature range	-20°C to +55°C operating, -25°C to +70°C storage
Number of LEDs	2
Other	AT command set, Auto answer mode



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