- Multipurpose communication bridge
- Secure and encrypted communication
- Embedded GPRS-modem
- LCD for user interface and diagnostics
- Din-rail mounting
- Transparent IEC-101 communication
- Optional M-Bus interface
- Interfaces to RTU's and Breaker units
- Interfaces to security equipment
- Versatile I/O possibilities
- Capable of remote firmware update

The AM06T versatile multipurpose GPRS-communication bridge is suitable for a vast range of automation-, telemetry-, and remote control applications

The AM06T is designed for acting as a communications bridge between remote equipment and control rooms. The purpose of the bridge is to bring security to the communication via encryption, time stamping and automatic routing in addition improving system response time and lowering communication cost.

AM06T brings improved system response and communication cost savings

In addition to security in communication, the AM06T reduces communication cost in applications, where remote equipment is frequently polled. For example, breaker stations and control units in energy distribution networks are usually frequently polled by the user interface SCADA. The AM06T and DSiP-solution however, does not need to be polled – the AM06T communication bridge is capable of independently reporting back to the SCADA system that a particular remote unit has a changed state or needs service. This behavior removes un-necessary polling, improves system response and saves communication costs.

M-Bus interface

The AM06T may be equipped with a M-Bus interface which can be used for example for communication with an energy utility meter. The AM06T M-Bus is a "master" interface for point-to-point communication with external M-Bus equipment.

Embedded GPRS-modem

The AM06T unit has an embedded GPRS-modem capable of transferring up to 32..48 kbit/s. The SIM-card is mounted into a socket on the bottom of the module. An external antenna is connected to the SMA-antenna connector.

Transparent communication

The AM06T unit authenticates itself by contacting a DSiP-router. After exchanging passwords, encryption keys, time-markers and optional certificates, the unit is ready for communication. A user interface program or a SCADA-system etc. may also authenticate itself in a similar way to the DSiP-system. After proper authentications, the SCADA system may securely communicate with, for example, a remote RTU or breaker control unit connected to the AM06T, using its native communications protocol, for example IEC-101.

The DSiP-system receives IEC-101 packets, encapsulates, encrypts and time-stamps them and transfers the content intact to the receiver. The overhead of the DSiP is minimal. However, the security and data-integrity is maximal and the DSiP is capable of automatically finding alternative routes to the receiver should the primary route fail for some reason. This functionality relieves the SCADA system from the burden of data-routing, data-integrity, and security issues and telecommunications problems.

Interfaces, Relay-outputs, Opto-Inputs

The AM06T features also 3 signal relays and up to 4 opto-isolated inputs which can be controlled via the DSiP-system. The unit has an isolated RS232 and a RS422/485 port for auxiliary devices.

Measures and Weight, Power

The AM06T unit is installed on a DIN-rail. The unit measures 105 mm width, 94 mm height and 80 mm depth. The weight is approx 220 grams. The unit operates from 12VDC to 40VDC. The power must be 24VDC when the M-Bus is used. The AM06T can monitor the input voltage level, which is useful in battery drive applications.

Applications

The AM06T unit may be used as a communications bridge in energy utility automation. It interfaces directly to various RTU's and Breaker Controller units, for example ABB REC523's and equivalents.

Applications cont'd...

With the M-Bus interface, AM06T may be used for automatic meter reading (AMR). The serial interface allows the unit to connect to distribution transformer health monitoring equipment.

In surveillance-, security- and intrusion detection systems the opto-isolated inputs on AM06T may be used for connecting to for infrared motion sensors. When the sensor triggers, the unit will send an alarm via the DSiP-system over GPRS.

The opto-isolated may also be used as inputs for tamper- or door-switches used in for example in an energy distribution substation – The unit can simultaneously be used for security monitoring and substation/breaker communication. The DSiP-system is capable of prioritizing messages. Alarms and control may have higher priority over general purpose telemetry data.

Measures	Width 105 mm, height 95 mm and depth 80 mm
Weight	~220 grams
Power	12..40VDC (24Vdc When M-Bus interface is used) 8W max.
Environmental temp.	-20C..+60C
Humidity	5..95%, non-condensing
Interfaces	1 isolated RS232, 1 isoltaed 422 port, 4 opto-isolated low voltage inputs, 3 signal relay outputs.
Supported protocols	Native DSiP protocol and transparent capability of others, such as IEC-101
Mounting	DIN-rail
LCD-Display	2 lines of 16 character back-lit display
User interface	Rotary encoder
Real time clock	Yes
Firmware update	Yes, the unit firmware can be remote updated
Watchdog timer	Yes
Operating system	Threading AJOS
Antenna connector	SMA

For more information Contact your representative or Ajeco Oy – www.ajeco.fi