

PRODUCT BRIEF

ARS-16P

Remote Terminal Unit

The Telescada ARS-16P is a high-performance remote terminal unit (RTU) suited to perform a variety of control functions at electrical substations. The ARS-16P is used for remote meter reading, demand recording, and control of large industrial or agricultural loads and voltage monitoring. It can also be applied to capacitor bank switching and monitoring, breaker and reclosure control.

A Telescada ARS-2P core module, together with the I/O-16 expansion module make up the Telescada ARS-16P RTU.

The ARS-16P is designed for operation in adverse conditions. Its microprocessor section and memories are completely isolated from peripheral circuits. The ARS-16P employs extensive ESD, RF and transient suppression.



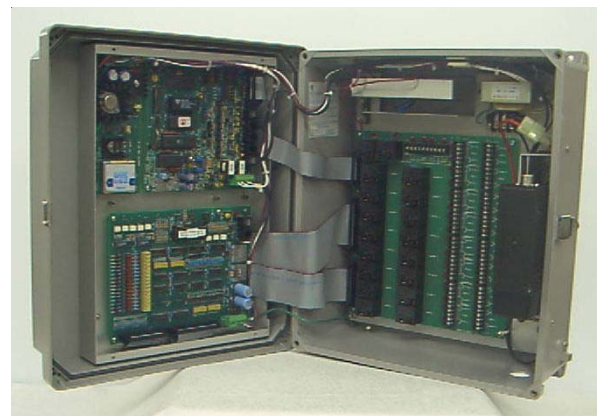
**2-WAY
COMMUNICATIONS**

**FIELD PROVEN
TECHNOLOGY**

**SUBSTATION
CONTROL**

PRODUCT FEATURES

- ✓ 20 (twenty) Optically Isolated Status Inputs
- ✓ 20 (twenty) Momentary Relay Control Outputs
- ✓ 16 (sixteen) Analog Inputs, each with 4 (four) Remotely Programmable Limits.
- ✓ 4 (four) Serial Communication Ports
- ✓ Communicates with IEDs via RS-232 or RS-485
- ✓ Independent Operation via Preset Algorithm



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PRODUCT SPECIFICATIONS

ELECTRONICS

The ARS-16P is a microprocessor based Remote Terminal Unit (RTU) employing the latest evolving technology in low power CMOS circuitry for optimal operation. An external LED provides drive-by indication of proper processor operation.

- √ Flash memory operating program configured locally or remotely
- √ Onboard Real-time clock for time related operations.
- √ Nonvolatile memory stores and retains operating parameters in event of unprotected power outage.
- √ Preset algorithm enables operation independent of master controller. During radio operation RTU also operates as a store and forward repeater extending the radio range.

CONTROL OUTPUTS

The ARS-16P is supplied with up to 20 (twenty) momentary contact relays with contact ratings of 10amps resistive at 250VAC and LED relay status indicators.

- √ Contact closure timing is remotely programmable from 10mSeconds to 255 Hours, or indefinitely.

STATUS COUNT INPUTS

The ARS-16P has 20 (twenty) status inputs. Status inputs are optically isolated, filtered and protected. All status inputs have LED indicators.

- √ Inputs may be configured as a 2 count (accumulator) inputs for a total of 10 (ten) inputs.
- √ Data recoring on 2 (two) count inputs.
- √ Loss of AC power input is internally sensed and reported when AC power is restored.
- √ Configurable status input sampling time 10mSec. to 2.5Sec.

MECHANICAL & ENVIRONMENTAL

The ARS-16P is designed for outdoor environments and is powered by 120, 240 or 480VAC.

- √ 7A/Hr. Sealed Lead Acid Battery back-up.
- √ Temperature - -40C to +60C
- √ Humidity - 5% -to 95% non-condensing
- √ Dimensions - 17.0"H x 14.00"W x 8.00"D
- √ Wall, Pipe, or Telephone Pole Installation
- √ Weight - approximately 24 pounds with radio transceiver

ANALOG INPUTS

The ARS-16P has 16 sixteen) analog inputs. Analogs a re single ended 0-5V, 0-1mA ,16-bit resolution.

- √ Each Input has 4 (four) remotely programmable limits
- √ Programmable hysteresis for each limit.
- √ Configurable input sampling time 10mSec. to 2.5Sec.

ADDRESSING

The ARS-16P provides unique 16 or 24 bit addressing, with remote programming capability.

- √ 4 (four) 16-bit group addresses
- √ Up to 10 (ten) route numbers each with associated 16-bit store and repeat forward and reverse addresses
- √ Group and route addresses remotely programmable

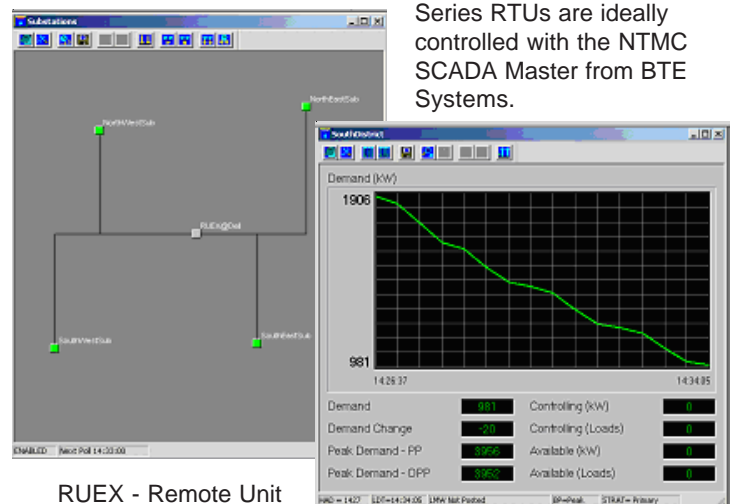
COMMUNICATIONS

The ARS-16P has 4 (four) serial communication ports.

- √ The Modem port provides connection to a remote communications medium.
 - √ Dial-Up Networks
 - √ VHF/UHF Private Radio Networks
 - √ 900MHz, 2.4GHz ISM
 - √ Mixed Network Communications
- √ The RS-232 port provides direct connection for local interrogation and programming
- √ The RS-232/485 user port provides serial interface to intelligent device IEDs
- √ The RS-485 expansion port provides a daisy chain RS-485 interface for expansion of additional modules.

NTMC

The Telescada ARS Series RTUs are ideally controlled with the NTMC SCADA Master from BTE Systems.



RUEX - Remote Unit Executive Substation View

LMEX - Load Management Executive View



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