

# PRODUCT BRIEF



## ARS-2MA *Remote Terminal Unit*

Telescada's ARS-2MA is a high performance Electric Utility Remote Terminal Unit well suited for a variety of 2-way control functions at remote sites. Primarily designed for industrial and agricultural load management, demand recording and remote meter reading applications, the ARS-2MA can also be used for capacitor bank switching, monitoring of circuit breaker and reclosure control

The ARS-2MA is designed for operation in adverse conditions. It's microprocessor section and memories are completely isolated from peripheral circuits. The ARS-2MA employs extensive ESD, RF and transient suppression.

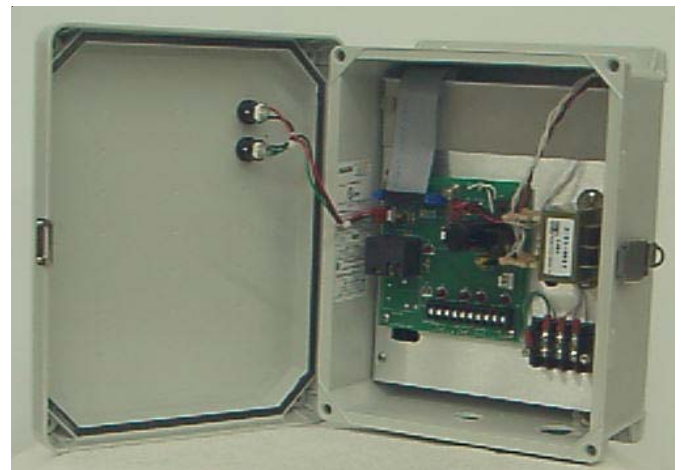
**2-WAY  
COMMUNICATIONS**

**FIELD PROVEN  
TECHNOLOGY**

**LOW  
COST**

### PRODUCT FEATURES

- √ 4 (four) Status Inputs
- √ 4 (four) Control Outputs
- √ A Pair of Status Inputs Can Be Configured as Two (2) KYZ pulse Count Inputs with Programmable Interval Recording.
- √ Individual and Group Addressing
- √ Power Outage Recording



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# PRODUCT SPECIFICATIONS

## ELECTRONICS

The ARS-2MA 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-2MA can be supplied with up to 2 (two) 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
- √ Up to 10 (ten) route numbers each with associated 16-bit store and repeat forward and reverse addresses
- √ Group and route addresses remotely programmable

## STATUS COUNT INPUTS

The ARS-2MA has 4 (four) 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, or as 1 count input plus 2 status inputs.
- √ Count inputs have 24 bit counters.
- √ Loss of AC power input is internally sensed and reported when AC power is restored.

## MECHANICAL & ENVIRONMENTAL

The ARS-2MA is designed for outdoor environments and is powered by 120VAC.

- √ 220 and 240VAC optional
- √ Battery back-up optional
- √ Temperature - -40C to +60C
- √ Humidity - 5% -to 95% non-condensing
- √ Dimensions - 11.50"H x 9.50"W x 5.25"D
- √ Wall, Pipe, or Telephone Pole Installation
- √ Weight - approximately 10 pounds with radio transceiver

## ADDRESSING

The ARS-2MA 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

## TIMING

The ARS-2MA provides configurable timing.

- √ Time of day timer
- √ Configurable status input sampling time 10mSec. to 2.5Sec.
- √ Configurable units of time scaler, 10mSec., 100mSec., 1 Sec., 10 Sec., 1 Min., 10Min..., 1 Hour. Time scaler is applied to control point timing.

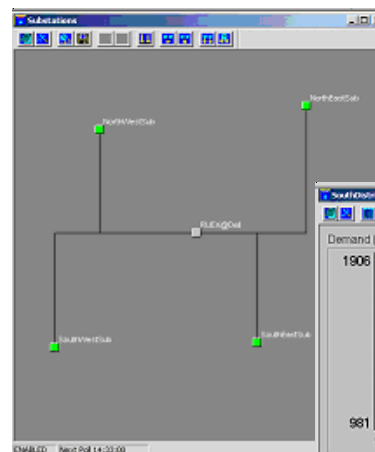
## COMMUNICATION

The ARS-2MA supports 2-way communications and is configurable to a number of communications mediums. It operates half duplex on a single communications channel; asynchronous.

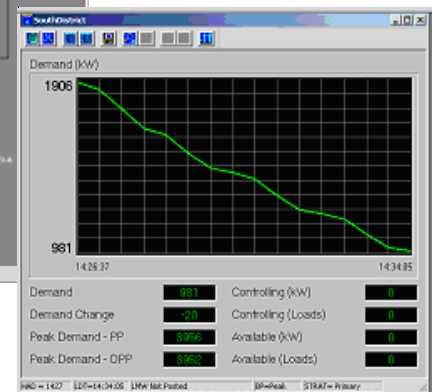
- √ Dial-Up Networks
- √ VHF/UHF Private Radio Networks
- √ 900MHZ, 2.4GHZ ISM
- √ Mixed Network Communications
- √ Custom Designed Communications

## NTMC

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



RUEX - Remote Unit Executive Substation View



LMEV - Load Management Executive View



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