



RAPID CONTROLS

Portable Tester and Display for Magnetostrictive Sensors



ATI Systems

Committed to Quality

Head Office

011 383 8300

International: +27 11 383 8300

sales@atisystems.co.za - www.atisystems.co.za

159 Galjoen Rd, Wadeville, Germiston

Durban Branch

031 303 1587

International: +27 31 303 1587

sales@atisystems.co.za - www.atisystems.co.za

10 Ballance Rd, Windermere, Durban



Management
System
ISO 9001:2008
www.tuv.com

TT100 Portable Sensor Tester and Display

TT100 Overview



The TT100 portable sensor tester has a waterproof case and internal power supply. It is designed to test and display position from magnetostrictive sensors in locations where you don't want to install a permanent display. Great for on-site testing, temporary position display, or testing of embedded sensors.

Tests and displays position for Start/Stop, PWM, SSI, and CANbus magnetostrictive sensors. It will also work with other types of SSI sensors, including absolute encoders, lasers inferometers, and glass scales.

Description

The Rapid Controls model TT100 Portable Sensor Tester interfaces with multiple types of transducers and displays position and status information from the transducer in raw counts or engineering units.

The TT100 is capable of use with sensors supporting the following output types:

- RS-422 Start/Stop digital pulse magnetostrictive sensors
- RS-422 Pulse Width Modulated (PWM) magnetostrictive sensor (internal or external interrogation)
- RS-422 Synchronous Serial Interface (SSI) sensors (8-32 bit, binary or graycode output)
- MTS Temposonics CANbus sensors

Display setup, including sensor type selection is accomplished via the front-panel keypad and display, or using a Windows-based setup program. The TT100 will automatically detect MTS Temposonics G-Series sensors and download their parameters.

The TT100 can eavesdrop on communication between a PWM or SSI sensor and another host device. This allows you to view position information without interrupting your existing control loop.

The unit is housed in a high-impact, waterproof plastic enclosure.

Features

- Lightweight, waterproof and portable tester goes where you do
- Test sensors installed in a machine without lengthy disassembly, connect to the sensor where-ever it is convenient
- Removable screw terminals allow easy connection to any sensor
- All setup can be performed from the front panel buttons, or using a Windows setup program
- Bright LED display is clearly visible in daylight or from across the room
- Interfaces to Start/Stop, PWM, SSI, or MTS CANbus sensors
- Use the TT100 anywhere AC power is available - the internal 24V power supply supports 90-240V
- Automatically detects and downloads parameters from MTS Temposonics G-Series sensors
- Supports any binary or graycode SSI sensor with 8-32 bits of data
- Automatically detects CANbus Node ID

AMK292 Replacement Card

Overview



The ARMK292 Parallel Interface module measures magnetostrictive transducer position, scales and offsets this position and presents the value to a host controller as a 24 bit Binary or BCD format parallel output.

Description

The ARMK292 Parallel Interface module measures magnetostrictive transducer position, scales and offsets this position and presents the value as a 24 bit Binary or BCD format parallel output. The 24 outputs are open collector sinking outputs (optionally source or TTL). The ARMK292 can function with Start/Stop, PWM or SSI transducers. The ARMK292 continually measures the transducer position and updates the latched outputs. A setup mode allows setting of re-circulations, transducer length, output format, etc via the RS232/RS485 port. An optional analog output provides position or velocity information in an analog form. Transducer position information is also made available to the host via the RS232/RS485 interface using Modbus ASCII protocol.

Parameter	Units	Min	Typ	Max	Notes
Measurement Resolution	Inch (mm)	—	0.00019685 (0.005)	—	Start/Stop with one recirculation
Control I/O	-	—	24	—	Number of position outputs
Control I/O	—	—	2	—	Number of Status and Control Outputs
Control I/O	ma	—	500	—	Maximum current on each output
Control I/O	usec	—	60	—	Data ready output busy during update of the output
Control I/O	usec	—	25	—	Data ready output busy after output is actually latched
Update Rate	Hz	—	-	—	Update Rate
Supply Power	V	125	24	5000	Supply Power
Enclosure	—	12.5	—	26	DIN Rail Mount occupies 1.5 inches of rail space

Features

- Two Complement binary or BCD output format
- 24 bit Magnetostrictive transducer position, 0.005 mm (0.00019685 in) resolution in Start/Stop mode
- Fast operation, outputs can be updated as often as 5000 times per second
- Dip-switch selectable use with Start/Stop, Pulse Width or SSI transducers
- RS232 or RS485 multi-drop communications at 9600, 19200, 38400 or 57600 baud
- Supports subset of Modbus ASCII
- 34 Pin IDC header for status and 24 bit binary/BCD output
- Analog Output represents Forced value, Position or Velocity
- Analog Output ranges: +/- 10V, +/- 5V, +/- 2.5V, 0 - +5V and 0 - +10V).
- Analog Output 16 bit DAC resolution, Polarity and Scale