

WATER HEATER CONTROL SYSTEM DESIGN USING ON / OFF UTILIZE ADAM DATA ACQUISITION MODULE 4000 SERIES

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Abstract:

The data acquisition process with computers is generally done through a serial port (COM1 & com 2) with standard RS-232C interface. This process has a drawback, especially coverage data limited transmission distance.

ADAM 4000 SERI is a collection of integrated modules for data acquisition process which is equipped with a microcontroller and capable of transmitting data in a standard RS-485/422 interface so as to overcome limitations of distance data transmission. This module serves to connect the sensor equipment of the computer. The main advantage of this module is its ability to control equipment from a remote sensor that allows for application in industry.

This research aims to develop capabilities 4000 SERI ADAM in some form of control system design model water heater with ON-OFF method, design and controlling software.

Hardware design consists of the input module 4011 ADAM, ADAM communications module 4520, module output 4021 ADAM, water heaters, drive relays and computers IBM PC XT / AT as a central controller. In the design software created using the C language in addition to functioning as a programmable controller is also to translate the instruction-instruction that is unique to the module ADAM 4000 Series while the program is only the procedures outlined in the flowchart.

Bibliography : 10 (1970 – 1993)