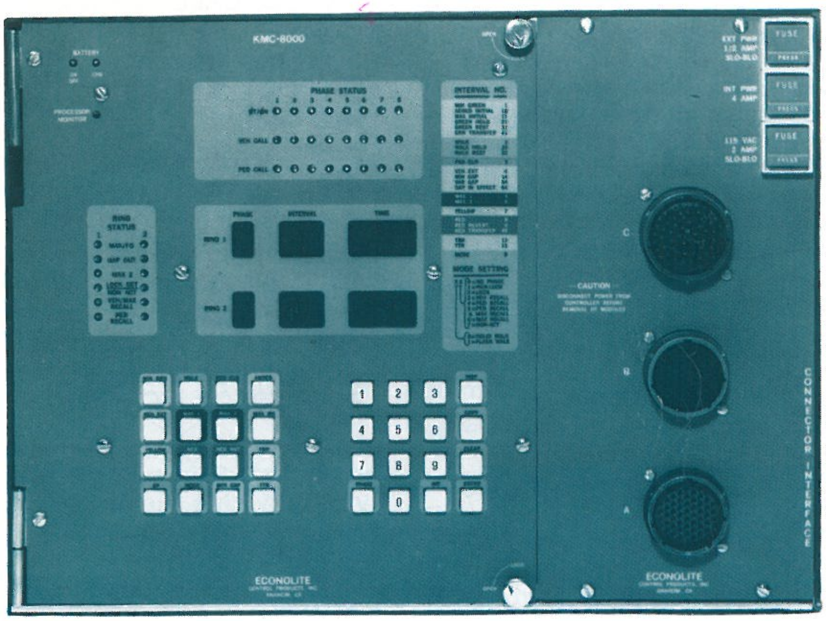
ECONOLITE CONTROL PRODUCTS, INC.

PRODUCT NEWS

KMC SERIES PROGRAMMABLE MULTIPHASE ACTUATED TRAFFIC CONTROLLERS



- *COMPACT MICROCOMPUTER DESIGN*
- *SIMPLE KEYBOARD PROGRAMMING*
- *PROGRAMMABLE PHASE SEQUENCE*
- *DIGITAL TIMING ACCURACY*
- *INTEGRATED CIRCUIT RELIABILITY*
- *MODULAR CONSTRUCTION*
- *EXPANDED RANGE OF FUNCTIONS*
- *FEWER MODULES*
- *SMALLER SIZE*
- *LOWER COST*
- *COMPLETE FAMILY CONSISTING OF 2, 4, AND 8 PHASE MODELS*

DESIGN

The KMC series controller is a microcomputer-based system structured to function as a full or semiactuated traffic controller. The design makes full use of Econolite's extensive experience with the use of large scale integration (LSI) circuits and the application of microprocessor technology and innovative modular, solid state construction techniques. The introduction of the KMC series into the new family of Econolite controllers expands the product line of compact, low-cost, and reliable equipment that meets, and in many cases, exceeds NEMA standards.

RELIABILITY

Extensive use of LSI circuits and of other state-of-the-art components reduces wiring and parts to a minimum. These factors add up to less power dissipation and a reduction in discrete part failure. Simple and easy to learn keyboard programming assures the reliability of selectable values.

ACCURACY

Digital timing, synchronized to the time base of the 60 Hz power line frequency, assures repeat timing and interval timing accuracy.

VERSATILITY

Versatility of the KMC series controller has been achieved by the use of one basic frame assembly which is designed to accept a number of different plug-in modules. These modules allow the controller to be configured in three basic models:

KMC-2000 — 2 phases
KMC-4000 — 4 phases
KMC-8000 — 8 phases

Each of these models contain the same interchangeable modules and can provide fully-actuated, nonactuated, pedestrian, exclusive pedestrian, or modified density modes of operation.

MAINTENANCE

Ease of maintenance has been provided through the modular design concept. This provides rapid troubleshooting through module interchange techniques and assures the highest "in-time service" available today.

KMC SERIES
STANDARD FUNCTIONS

PHASE SKIPPING CAPABILITY
Eight phase omit inputs for skipping any phase.

PED SKIPPING CAPABILITY
Eight ped omit inputs for skipping the pedestrian service on any phase.

PHASE HOLDING
Eight hold inputs for coordination and auxiliary logic.

PHASE STATUS OUTPUTS
Eight outputs each indicating phase timing, phase next, and phase check.

STOP TIMING
Two inputs are provided to stop controller timing in either ring.

FORCE OFF
Dual inputs to force the controller out of extendable green in an actuated phase and walk hold in a nonactuated phase.

REST IN RED
Both the primary and secondary phases can be separately called to rest in red in the absence of calls.

OMIT RED CLEARANCE
One input per ring is provided to omit all red timing on all phases within the timing ring.

INHIBIT MAXIMUM TERMINATION
Two inputs to inhibit termination of a phase due to maximum green timing on a per-ring basis.

MAX 2 SELECTION
When this input is applied, the maximum green timing is determined by the MAX 2 settings on a per-ring basis.

EXTERNAL START
One input is provided to cause the controller to revert to its programmed external start initialization phases and interval.

INDICATOR LAMP CONTROL
One input that provides the capability to disable all indicators except battery charging, battery switch status, and processor monitor. This input also inhibits the controller from accepting any information from the keyboards.

PED RECYCLE
One input per timing ring that controls the recycling of pedestrian service.

CLOCK OUTPUTS
Two clock outputs are provided for external use.
a. 1 Hz square wave (flashing logic)
b. 5 Hz

The 1 Hz and 5 Hz are under software control and can be used to indicate processor malfunction.

EXTERNAL MINIMUM RECALL
One input is provided to apply minimum vehicle recall to all phases.

MANUAL CONTROL ENABLE
This input stops interval timing in all intervals except vehicle clearances and places calls on all phases. When used in conjunction with interval advance, the controller can be manually advanced through the green intervals but time the vehicle clearances.

INTERVAL ADVANCE
An input to manually advance the controller.

CALL TO NONACTUATED
Two inputs can be used to call any two sets of phase combinations to nonactuated operation.

WALK-REST MODIFIER
An input that allows a nonactuated phase to rest in walk when no opposing phase calls exist.

OVERLAPS
Outputs are provided for four overlaps, each of which are programmable to any number of phases.

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