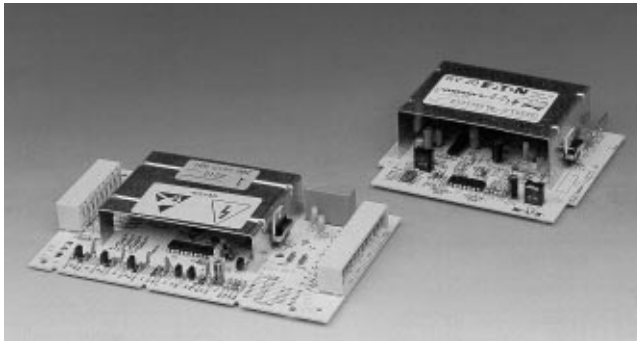


Speed Control Modules



Speed control modules are essential devices in modern washing machines for controlling the motor speed. Only through the use of electronics is a system capable of providing the optimized control of speeds with maximum safety.

Invensys Appliance Controls' speed control modules are designed to drive universal motors as well as asynchronous motors equipped with tachometer feedback.

Taking into account your objectives for performance and the mechanical constraints of your application Invensys is able to offer you the most suitable speed control module from our range of products, the widest available on the market.

Design Features

All speed control modules can be delivered separately, fitted into a plastic housing to avoid handling damage, or directly soldered on EC or P 55 timer terminals.

Such a combination with the timer provides the following advantages:

- Cost effective solution
- Simplified and organized wiring harness
- No plastic housing necessary for the electronic module
- One reference to order, one product to fit in the machine

Digital Speed Control Modules

Possible control of wash cycle in order to:

- adapt the cycle versus the selected program
- carry out repeated reversing after an out-of-balance detection before a new attempt giving a better distribution
- adjust automatically the cycle versus the load

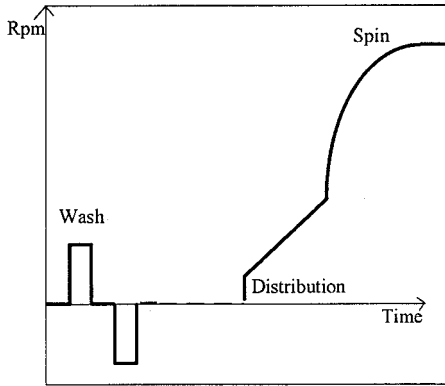
Possible control of the timer micro-motor in order to:

- stop in case of out-of-balance detection
- increase some step times according to the selected program or program option

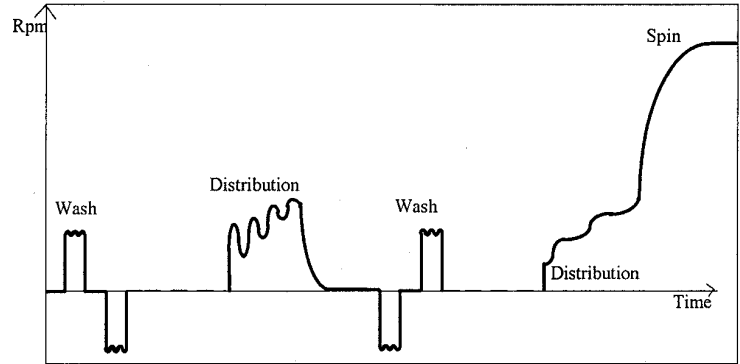
To reduce the noise level while increasing the efficiency and the life expectancy of UNIVERSAL MOTORS, we propose a D.C. current motor supply with CHOPPER control mode.

Analog Speed Control Modules Using Invensys Appliance Controls A.S.I.C.

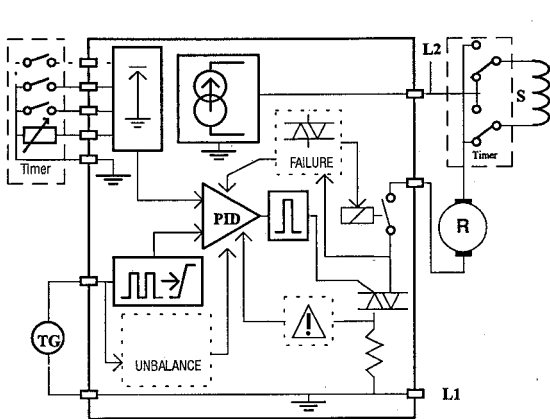
Controlled acceleration ramps, slow for an optimized clothes distribution, or fast to minimize mechanical constraints. Out-of-Balance detection. In the case of excessive speed variation during the distribution ramp, the motor is stopped and further acceleration attempts are carried out till the permitted out-of-balance level is not exceeded. Integrated safety functions allowing a great reduction of components for a better quality. Full safety in case of faulty components.



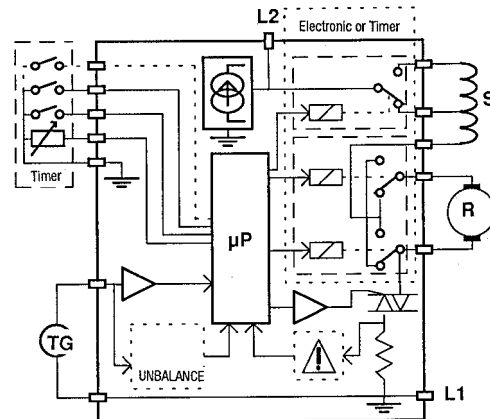
Ideal Profile



Profile with Out-of-Balance Detection



Analog with A.S.I.C.



Digital with Microprocessor