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V PLC Time

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X'CALIBUR AUTOMATION

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Application Note

APNT-1#

Introduction

Industrial marketers looking to stretch every dollar in their marketing budget and invest in effective and measurable marketing programs.

As the most vertically integrated supplier in the industry, X'CALIBUR is better able to control the cost, quality and delivery of its products.

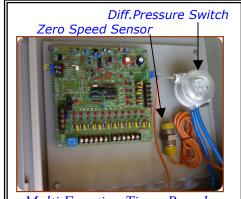
Vertical integration also means that we can offer enhanced design flexibility and support to our customers worldwide.

X'CALIBURS research and technology function supports our businesses worldwide with a highly developed expertise in Bag house Designs & Bulk handling Systems useful in, *Textiles, Process Engineering, Polymer Chemistry, Cement, Fertilizer, Petroleum, Automotive, Food & Pharmaceuticals etc.*

Coordinated Multifunction Sequential Timer [CMST] is Feature-Rich Controller

The trend in many of the to-days systems is to provide multiple output technique from a single board to optimize the performance. The application proposed by this is synchronizing the control of functions like

- 1. <u>Timely Sequencing</u> of Bag House Pulse Valves with <u>adjustable on/off times</u>
- 2. Keep a Watch on the Rotary Valve Stoppages there by initiating <u>Zero Speed</u> action for alarm Annunciator.
- 3. Timer <u>Malfunction</u> operation reporting
 - Take Action for on <u>Demand</u> Or <u>Timer</u>
 <u>mode</u> Pulsing with support of
 differential pressure switch... Dwyer USA / Huber, Germany



Multi Function Timer Board

- Remote / Local mode selection. And in <u>remote mode timer on/off</u> function via PLC or DCS communication
- <u>Tracking Solenoid</u> working & reporting <u>locally as well as remotely</u>

• Healthy relay output for PLC saying *TIMER OK Function*

Wide input Voltages Applications...85 to 260 Vac

Typical Alterative to the linear solution is a High Voltage monolithic step-down switching regulator. Switching regulator offers high efficiency, compactness & good dynamic response. This effects in cost saving, design efforts & good noise performance

Accurate Clocking

By providing separate Integrated Circuits for on time & off time gives accuracy for time setting. This relieves micro controller from the task of providing clocking functions & be more functions specific programs. Additionally yielding higher performance

Advantages Of Coordinating Multiple Control In Bag House Pulsing Application [CMST]

- ✓ Synchronous control eliminates <u>separate control enclosures</u> for other functions
- ✓ Very <u>Obvious Cost saving</u>
- ✓ Ease & simplicity of *monitoring at single point*
- ✓ Get 3-for-one and Change...
- ✓ Compact Solution
- ✓ Be pickey ----Choose the *Idyllic Timer board*
- ✓ High *LED Count* for *Function Indicators*

In conclusion The embedded control...

The CMST embedded system can thus, be used to refer to devices that perform certain specific functions and cannot be used to perform others by loading applications on them

Thus, embedded systems have become indispensable in today's world and daily human activity (as it is today) without them, is practically impossible



DESIGNER & SYSTEM INTEGRATOR:

Vilas Wadekar worked as a chief technical specialist in Bag House Designs & Solids Management with the Advanced Manufacturing of Technology at Various Companies. For last 25 years he is Manufacturing his own Bag House Accessories & Bulk Handling Products in Air Pollution Controls & Solids Handling for eminent rank OE's In India. Over the years he has acquired the skills of Embedded Control Instrumentation in the same field. He is a B.E. in Mechanical engineering from College of Engineering Pune India and M.Tech. In Production Science & Technology from The Indian Institute Of Technology [IIT] Kharagpur, WB, India.

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