Orion Kiln Control Solution  October 2010

M&H Upgrade to FDC-2010-K5C System

Upgrade from M&H ST100 Sterilizer Control System utilizes the two analog input cards from existing M&H ST100 2-line display control system

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<thead>
<tr>
<th>FDC - 2010- K5C – M&amp;H -</th>
<th>Price</th>
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<tbody>
<tr>
<td>1 Optional Analog Input and Output</td>
<td>$2,666</td>
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<tr>
<td>0: None</td>
<td>n/c</td>
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<tr>
<td>1: One Analog Input module with 2 analog inputs and one linear 4-20 mA output</td>
<td>$357</td>
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<tr>
<td>2: Two Analog input modules; each have 2 analog inputs and one linear 4-20 mA output.</td>
<td>$714</td>
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<tr>
<td>3: Three Analog input modules; each have 2 analog inputs and one linear 4-20 mA output.</td>
<td>$1,041</td>
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Note 1): The base unit above has all components of a new Kiln-Sterilizer system including Display, Power Supply, Cable, all Control Module components less the two standard Analog input/output Modules and Time Delay Relay and Socket.

Note 2): M&H ST100 replacement 2-line display & CPU are available.

ST100 replacement Display with embedded software FC4A-D20-RS1 w/Real Time Clock (FC4A-PT1) and Memory Cartridge (FC4A-PM64-K4C) $985

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Control Module Components

- Control Module CPU: FC5A-D16RS1-K5C $895 with K5C firmware installed
- Real Time Clock: FC4A-PT1 $45
- Memory Cartridge 64KB: FC4A-PM64-K5C $45

The Real Time Clock & Memory cartridge are installed within the CPU module and recommend all three be purchased as kit below:
- Control Module, RTC and Memory Module Kit combined FC5A-D16RS1-K5C-PT1-PM64 $985

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<tr>
<td>$215</td>
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<td>$95</td>
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<tr>
<td>$140</td>
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<td>$45</td>
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Connecting Cable – Display to CPU Control Module CA-2011-8 $25

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Following components are not part of the M&H upgrade but are included with new units.

- Analog Input Module (2 temperature inputs & 1 mA output) FC4A-L03AP1 qty 2 included with new base unit $380
- Time Delay Relay & Socket GE1A-C10MA110 (relay) / SR2P-06 (socket) $30

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Miscellaneous Options

- Manuals:
  - FDC-2010-K5C_Operators_Manual_v2.x. $40
  - FDC-2010-K5C_OEM_Configuration_Manual $30

  Manuals above are available on our site at the link http://www.futuredesigncontrols.com/KilnFDC2010K5C.html

- ISTICK-PANEL: USB Panel Mount Adapter for Memory I-Stick or Printer Connection $40
- ISTICK-4X-CVR: Nema 4X USB Panel Mount Adapter $75
- KilnView Software: PC communication to Orion Control System $2,500
- SNA-10A: RS232 to RS485 Converter connects PC RS232 Serial connection to Orion RS485 $145
- DB9M-DB9F-6ft: Cable [6 ft] to connect SNA10A to PC serial port $20
- Printer: HP 6540 (or equal) inkjet printer $159
- Low Frequency Ferrite Beads (qty 2) LFBead-240-2282-ND $10
- High Frequency Ferrite Beads (qty 2) HFBead-240-4279-ND $10

Low Frequency Ferrite Beads are included for each analog input to provide additional protection for electrical “Noise” typically created by Variable Speed Drives.

Software Licensing

Future Design Controls “Software” provided with the Control Module and the Color Touch Screen display is protected by copyright laws, international copyright treaties, intellectual property laws and treaties. For further information refer to the Kiln Control System manual.

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