Dear Customers,

January 2017
Fuji Electric Co., Ltd.

MICREX-SX Series

Announcement of Release of Motion Controller SPH3000D

Thank you very much for your continued patronage of Fuji programmable controller. We hereby announce that we have released the Motion Controller SPH3000D which has additional functions based on SPH3000 in MICREX-SX series.

1. Released Model

<table>
<thead>
<tr>
<th>Product name</th>
<th>Type (Ordering code)</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPH3000D Motion Controller</td>
<td>NP1PU-048EZM</td>
<td>Program memory: 48k steps, Data memory: 448k words</td>
</tr>
<tr>
<td></td>
<td>NP1PU-096EZM</td>
<td>Program memory: 96k steps, Data memory: 1,216k words</td>
</tr>
<tr>
<td></td>
<td>NP1PU-128EZM</td>
<td>Program memory: 128k steps, Data memory: 1,216k words</td>
</tr>
<tr>
<td></td>
<td>NP1PU-256EZM</td>
<td>Program memory: 256k steps, Data memory: 2,240k words</td>
</tr>
</tbody>
</table>

2. Release Date

Order: Started on January 1, 2017
Shipment: Scheduled to start on February 1, 2017

3. Product Overview

(1) We have changed the firmware of SPH3000 series CPU modules and added the following functions. If the following functions are not used, the specifications are the same as those of the existing SPH3000.

(1-1) New addition of FB non-retain memory

High-speed accessible memories have been newly added as follows.
User FB non-retain memory : 128k words, System FB non-retain memory : 64k words

<table>
<thead>
<tr>
<th>Product type (Program memory capacity)</th>
<th>SPH3000 Total memory capacity &lt;Existing model&gt;</th>
<th>SPH3000D Total memory capacity &lt;New model&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>48k-step model</td>
<td>256k words</td>
<td>448k words</td>
</tr>
<tr>
<td>96k-step model</td>
<td>None</td>
<td>1,216k words</td>
</tr>
<tr>
<td>128k-step model</td>
<td>1,024k words</td>
<td>1,216k words</td>
</tr>
<tr>
<td>256k-step model</td>
<td>2,048k words</td>
<td>2,240k words</td>
</tr>
</tbody>
</table>

(1-2) Addition of 64-bit calculation instructions and type conversion instructions

- 62 calculation functions by 64-bit type data (structure) have been added.
  Arithmetic function (18 functions), Bit-string function (4 functions), Selection/comparison function (16 functions), Type conversion function (24 functions)
- In addition, eight type conversion instructions have been added.
  * For the programming support tool, only Expert (D300win) supports these added instructions. (Standard is scheduled to support them in 2017 fiscal year or later.)

(1-3) Addition of motion FBs

10 motion FBs provided as user FBs have been added as system FBs.
  e.g. PTP positioning / Linear interpolation / Electronic cam
  * For the programming support tool, only Expert (D300win) supports these added instructions. (Standard is scheduled to support them in 2017 fiscal year or later.)
(2) A new model with 96k steps of program memory has been added. For SPH3000D, 48k, 96k, 128k, and 256k step models are now available. Migration target models from SPH300 (32k/74k/117k/245k steps) have been prepared.

(3) Module appearance

(4) Supported version of programming support tool
To use SPH3000D, the following versions of SX-programmers are required.

- Expert (D300win) (Type: NP4H-SEDBV3): V3.6.10.33 or later
- Standard (Type: NP4H-SWN): V3.0.15.17 or later