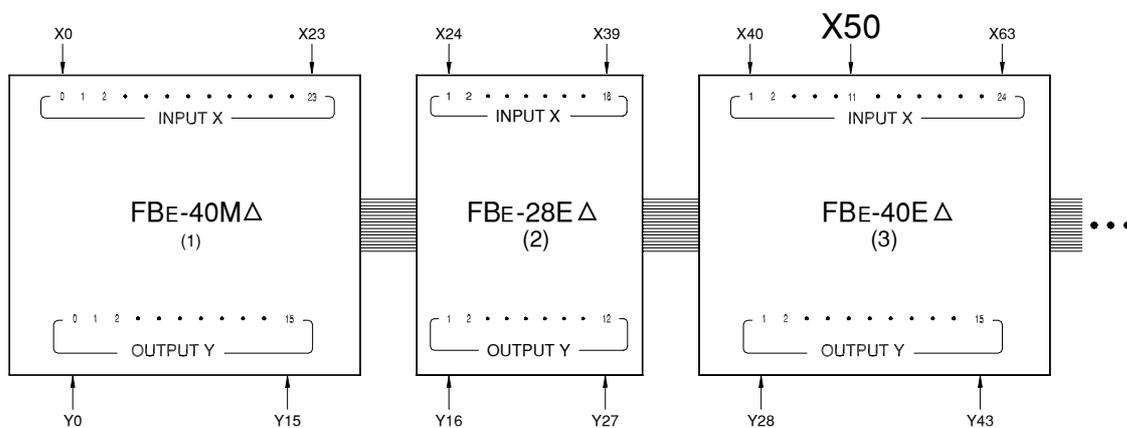


Chapter 2 I/O Expansion and System Combination

2.1 I/O Expansion and I/O Number Calculations

The internal status of X0~X255 are corresponding to the on/off condition of the external inputs connected to the input interface circuit, and the internal status of Y0~Y255 are corresponding to the on/off state of the external outputs connected to the output interface circuit. On the main unit there are labeled with X0 to X23 and Y0 to Y15 (depending on the model and the number of I/O points); these labels on the input terminal blocks indicate the correspondence of the terminal inputs and the PLC internal input status X0 to X23 (for FBE-40MX); the labels on the output terminal blocks indicate the correspondence of the terminal outputs and the PLC internal output status Y0 to Y15 (for FBE-40MX). However, for expansion units or modules, the corresponding I/O number of the hardware I/O points should be calculated according to the figure below.



- The input number of any point on an expansion unit/module is the number of the point added with the total number of inputs preceding of it. The same is true for output number calculation.

As illustrated in the figure above, the input number of the 11th input point in the third module is found by adding 11 to the sum of the input points in all of the preceding units as shown below:

$$X (23+16+11) = X50$$

Note : The I/O expansion of FB-PLC are limited to 256 points for both input and output. When the total number of I/O points exceeds this upper limit, the PLC will not run.

Refer to the description in “Advanced Function Section” for the correspondence of the analog input/analog output register (IR/OR) and their external analog input (AI)/analog output (AO) module.

2.2 Communication between the PLC and other Peripheral Systems

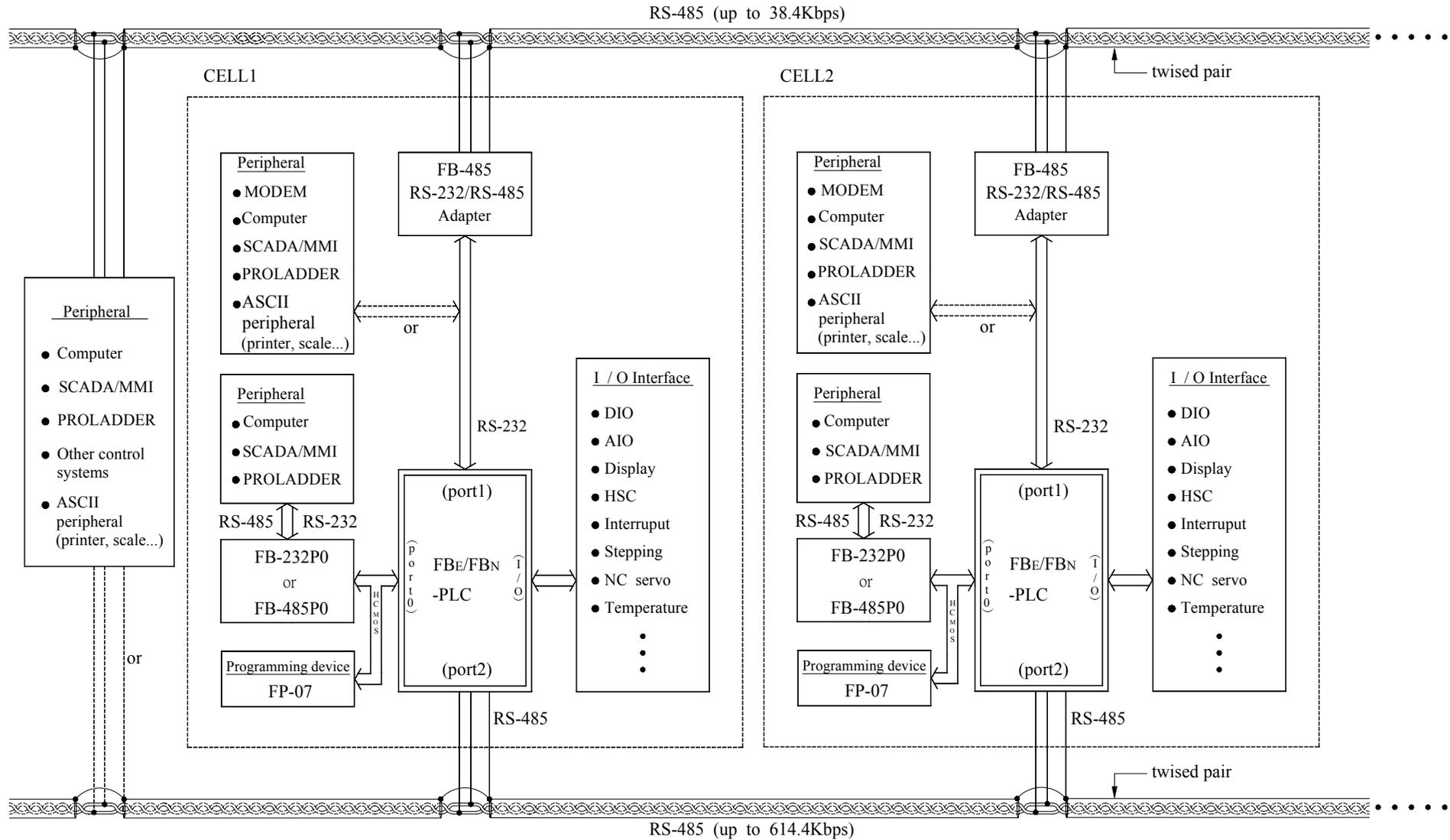


Figure 2-1 : I/O and Intelligent peripheral architecture of FB PLC