



When the data size of the IO-Link master changes, the data size changes for all IO-Link ports. Making this functional with the AOI requires more than just changing the configuration size value. This procedure must be done in offline mode.

The default is 32 bytes for each port and is represented in the configuration as a "4".

AL1121:C.Port\_Process\_Data\_Size 🚽 4 Decimal

Simply making a change to 0, 1, 2 or 3 (1, 4, 8, or 16 bytes) does not change the array length pulled into the PLC. For this change to take effect, modifications must be made to the module definition and to all of the PLC\_Input tags of the AOIs.

## First let's review the static input bytes of a 4 port AL11/AL12xx block.

Byte	Content	
0	Disitel inside of the IO Link mode in the DL complian mode ( Manufact distributed by Ob (	
1	Digital inputs of the IO-Link ports in the DI operating mode ( $\rightarrow$ mapping: digital input data (DI) ( $\rightarrow$ p.	
2	Status information ( . Manufus: Status information ( . p. 72))	
3	Status information ( $\rightarrow$ mapping, status information ( $\rightarrow$ p. $\underline{r_2}$ ))	
445	Acyclic command area: Response channel (→ Response channel (→ p. 77))	
4663	Port X01: Diagnostic, vendor ID, device ID, events ( $\rightarrow$ Mapping: IO-Link port information ( $\rightarrow$ p. <u>72</u> ))	
6481	Port X02: Diagnostic, vendor ID, device ID, results (→ Mapping: IO-Link port information (→ p. 72))	
8299	Port X03: Diagnostic, vendor ID, device ID, events (→ Mapping: IO-Link port information (→ p. 72))	
100117	Port X04: Diagnostic, vendor ID, device ID, events (→ Mapping: IO-Link port information (→ p. <u>72</u> ))	
118	Port X01: Cyclic input data (n bytes)	
118+n	Port X02: Cyclic input data (n bytes)	
118+2n	Port X03: Cyclic input data (n bytes)	
118+3n	Port X04: Cyclic input data (n bytes)	

The location of this data never changes. This is the baseline of how to adjust the input array size in the module definition properties.

If we select data size 2 (8 bytes per port), then we have 8 x 4 or 32 bytes to add to the static 117. This gives us 149 and because the array is set for INT we need 75 words.

## 1. Select module properties.

	A	Y1020_Dig_In_Test_1	
AY1020 /		New Module Discover Modules	
Å	6	Cut	Ctrl+X
e	Ð	Сору	Ctrl+C
6	1	Paste	Ctrl+V
		Delete	Del
		Cross Reference	Ctrl+E
		Properties	Alt+Enter
		Print	•





2. Select "Change..."

1.001
Compatible Module
Exclusive Owner with IO-Link I/O + Status
Change

3. Modify the input size.

Module Definition*	×		
Revision: 001			
Electronic Keying: Compatible Module			
Connections:			
Name	Size		
Exclusive Owner with IO-Link VO + Status +	Input: 75 Output: 23		
ОК	Cancel Help		

4. Select "OK" and "Apply" the changes.





Now for a modified AOI example. We will continue using our data size 2 (8 bytes per port) and the 75 word input.

5. Right click on the AOI and select "Open Definition".

Add-On Instructions			
Acyclic_4PORT_IOL			
Parameters and I	Open Definition		
Logic X	Cut	Ctrl+X	
KG6_KI53_8PORT_IOL	Сору	Ctrl+C	

6. In the Parameters tab find the PLC\_Input and change the "Data Type" to INT[75].

General Parameters* Loc		cal Tags	Scan Modes	Signature	Change	
		Name	Usage	Data Type	Alias For	
		EnableIn	Input	BOOL		
		EnableOut	Output	BOOL		
	•		InOut	INT[75] 💀		
		+-Port_Process	Input	INT		

- 7. Drop in the AOI and fill it out.
  - Make sure that the Port\_Process\_Data\_Size matches the configuration data size.

Setup for an 8-pot IO-Link block uses
a similar procedure.

Byte	Content	
0	Distributes (the IO Listensis in the Discoursing and ( ) the standard build to IDD ( ) = 700	
1	Digital inputs of the IO-Link ports in the DI operating mode ( $\rightarrow$ Mapping: digital input data (DI) ( $\rightarrow$ p.	
2	Status information (→ Mapping: Status information (→ p. 73))	
3		
445	Acyclic command area: Response channel (→ Response channel (→ p. 79))	
4663	Port X01: Diagnostic, vendor ID, device ID, events ( $\rightarrow$ Mapping: IO-Link port information ( $\rightarrow$ p. <u>74</u> ))	
6481	Port X02: Diagnostic, vendor ID, device ID, results ( $\rightarrow$ Mapping: IO-Link port information ( $\rightarrow$ p. <u>74</u> ))	
8299	Port X03: Diagnostic, vendor ID, device ID, events (→ Mapping: IO-Link port information (→ p. 74))	
100117	Port X04: Diagnostic, vendor ID, device ID, events ( $\rightarrow$ Mapping: IO-Link port information ( $\rightarrow$ p. <u>74</u> ))	
118135	Port X05: Diagnostic, vendor ID, device ID, events ( $\rightarrow$ Mapping: IO-Link port information ( $\rightarrow$ p. <u>74</u> ))	
136153	Port X06: Diagnostic, vendor ID, device ID, events ( $\rightarrow$ Mapping: IO-Link port information ( $\rightarrow$ p. <u>74</u> ))	
154171	Port X07: Diagnostic, vendor ID, device ID, events (→ Mapping: IO-Link port information (→ p. 74))	
172189	Port X08: Diagnostic, vendor ID, device ID, events (→ Mapping: IO-Link port information (→ p. 74))	
190	Port X01: Cyclic input data (n bytes)	

As with the previous example, the location of this data never changes and it is the baseline.

If we select data size 2 (8 bytes per port), then we have 8 x 8 or 64 bytes to add to the static 189. This gives us 223 bytes and because the array is set for INT we need 112 words.

Go back to step 1 with our new 112 INT value and use the 8-Port AOIs.