Write sensor parameter via Siemens TIA

English

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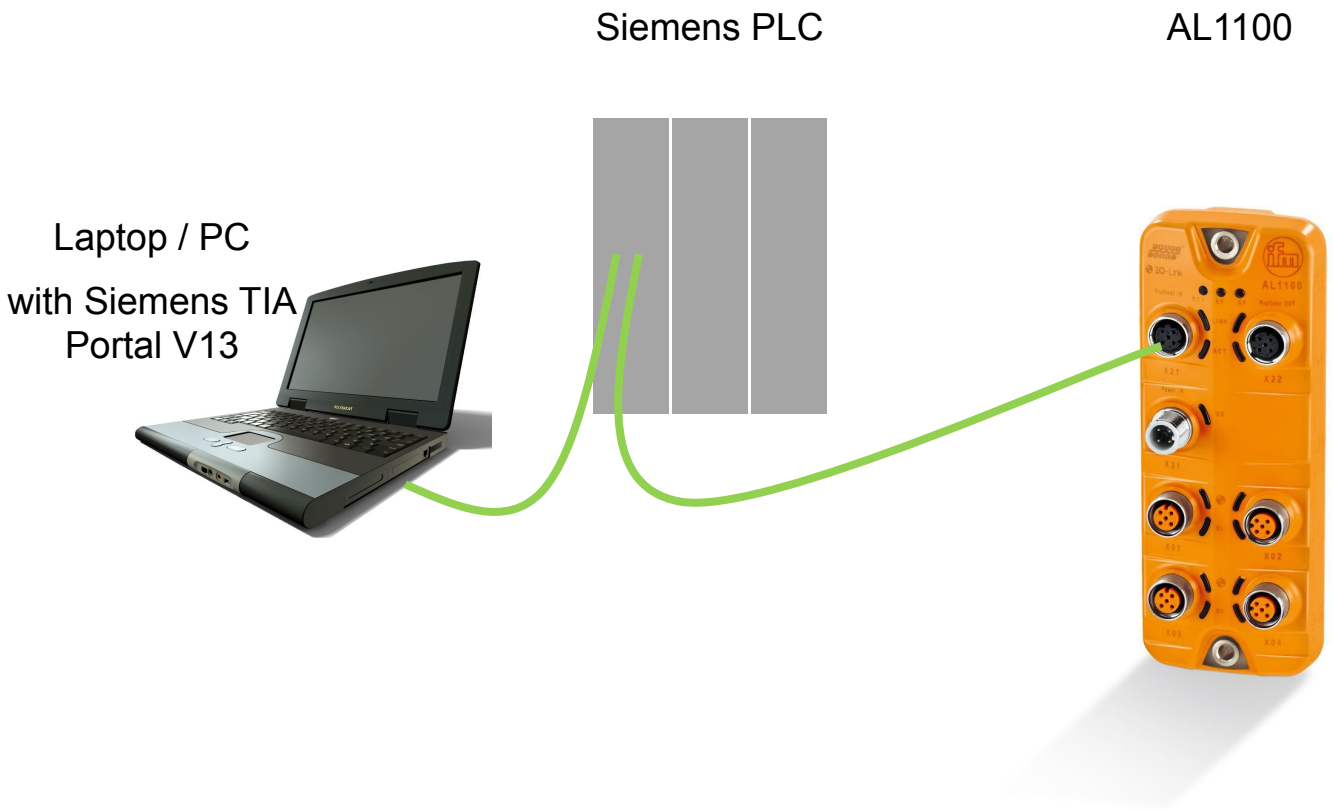
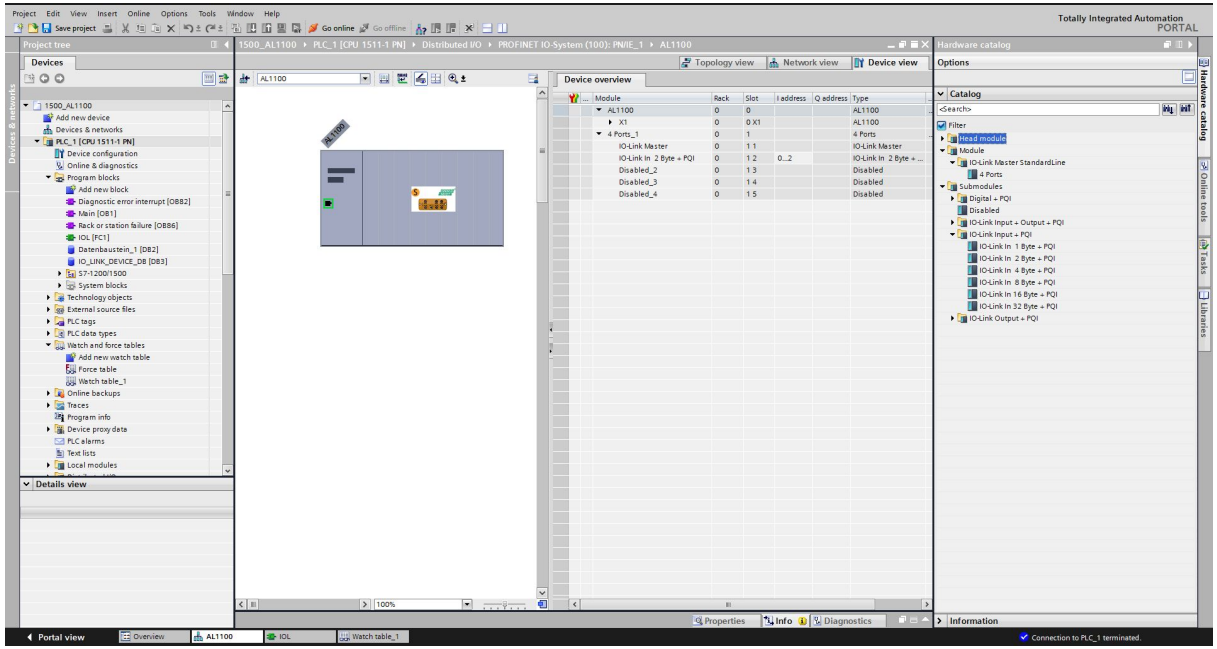
1. Connect units



2. Configuration – AL1100 in TIA Portal V13

Install GSDML files for this device – Get GSDML file

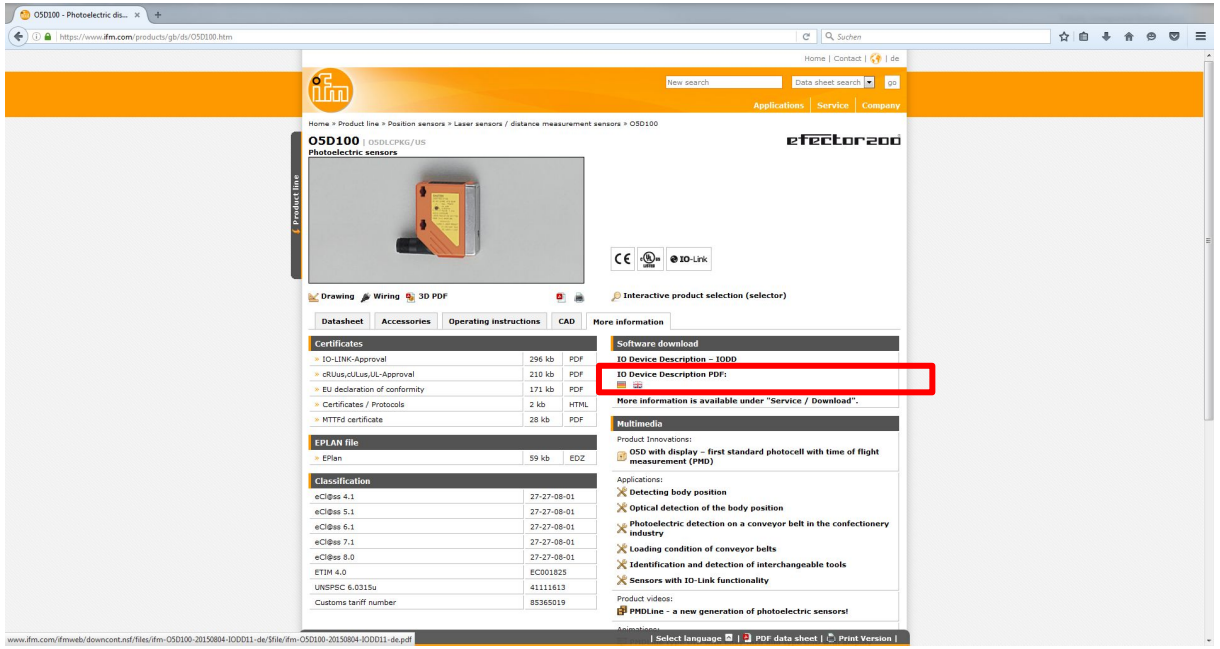
- Download current GSDML file
- Update your cataloge
- Choose AL1100 and insert it to your network



2. Configuration – AL1100 in TIA Portal V13

Connect O5D100 to port 1

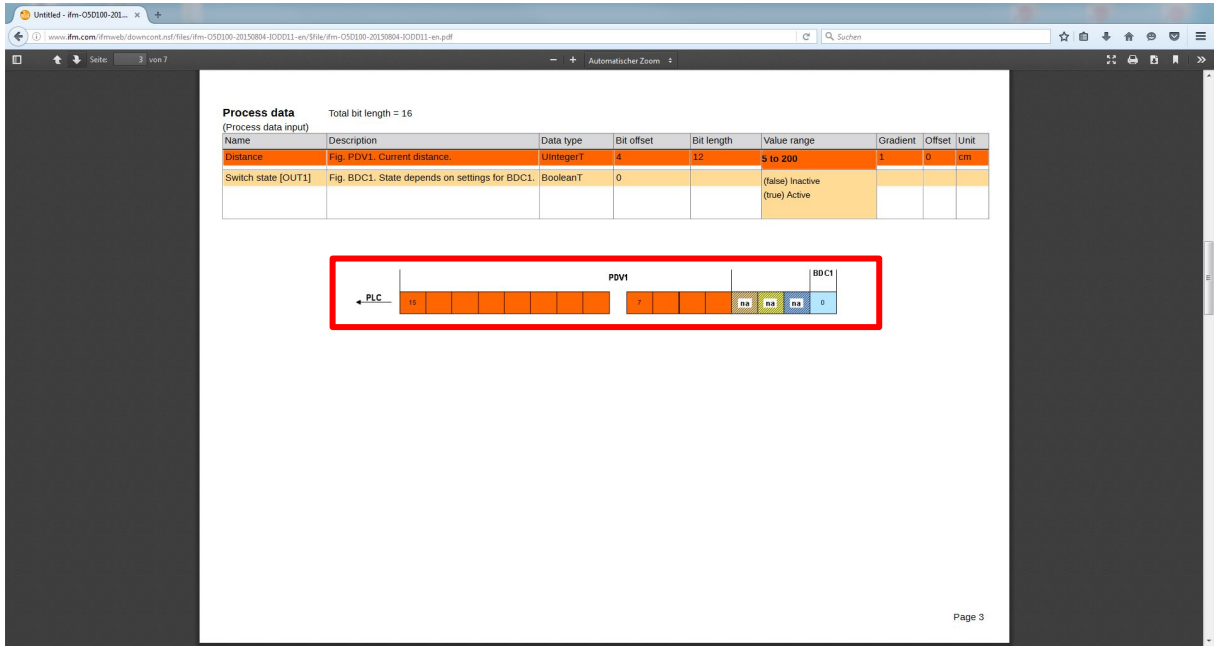
- Download IODD PDF



2. Configuration – AL1100 in TIA Portal V13

Connect O5D100 to port 1

- This device has 2Byte cyclic data
- Last 4bits has to ignore



Process data Total bit length = 16

(Process data input)

Name	Description	Data type	Bit offset	Bit length	Value range	Gradient	Offset	Unit
Distance	Fig. PDV1. Current distance.	UIntegerT	4	12	5 to 200	1	0	cm
Switch state [OUT1]	Fig. BDC1. State depends on settings for BDC1.	BooleanT	0		(false) Inactive (true) Active			

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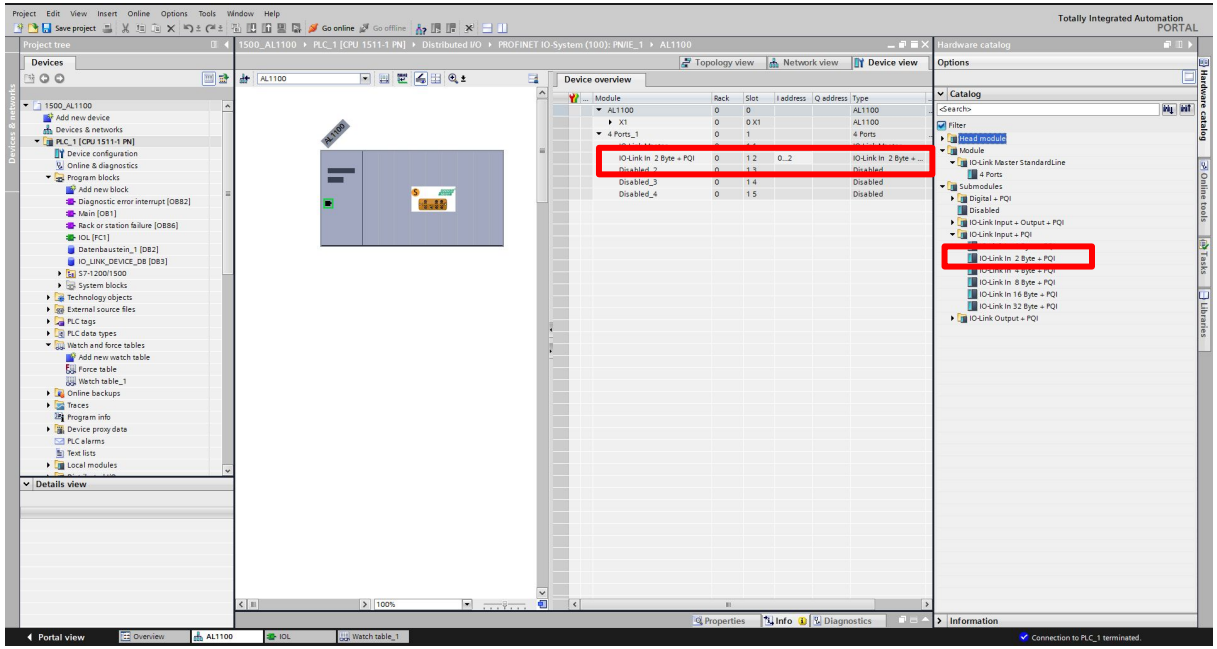
2. Configuration – AL1100 in TIA Portal V13

Set-up your port length

- Choose ‚IO-Link 2Byte + PQI‘
- Put it with Drag&Drop to your port
- Set your input-area



3. IO-Link parameter – O5D100

Parameter 80 – Laser On/Off

Variables

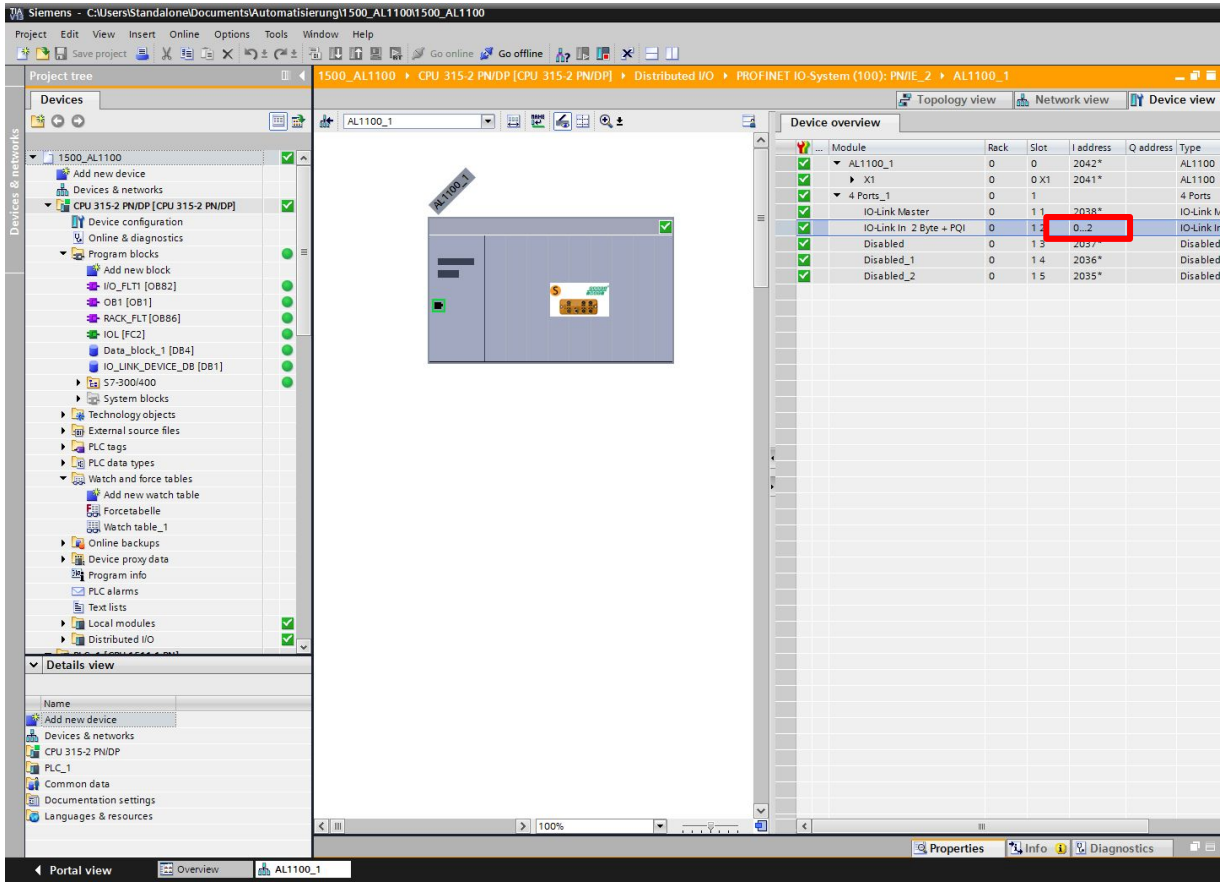
Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
Laser	Laser configuration	80	Sub 0	UIntegerT	8 Bit	rw	(1) Laser on	(0) Laser off (1) Laser on			
Display	Display configuration	96	Sub 0	UIntegerT	8 Bit	rw	(1) Display on	(0) Display off (1) Display on (2) Display rotated			
Keylock		100	Sub 0	UIntegerT	8 Bit	rw	(1) Unlocked	(0) Locked (1) Unlocked			

- 8 Bit -> value ‚1‘ to LEN (IO_Link_Device function block)

4. Read sensor parameter – S7-315-2 DP/PN

Find the ID for IO_Link_Device function block

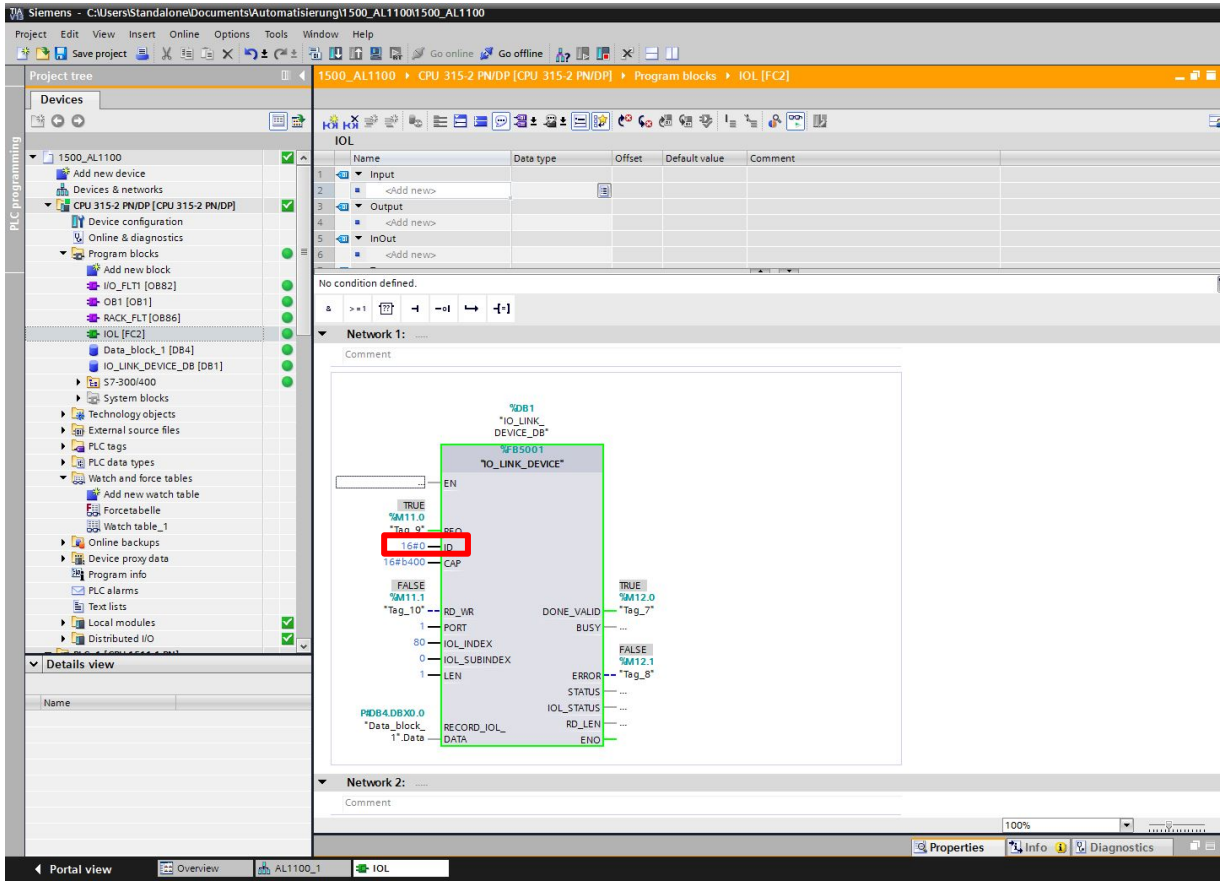
- First input address of the port



4. Read sensor parameter – S7-315-2 DP/PN

Find the ID for IO_Link_Device function block

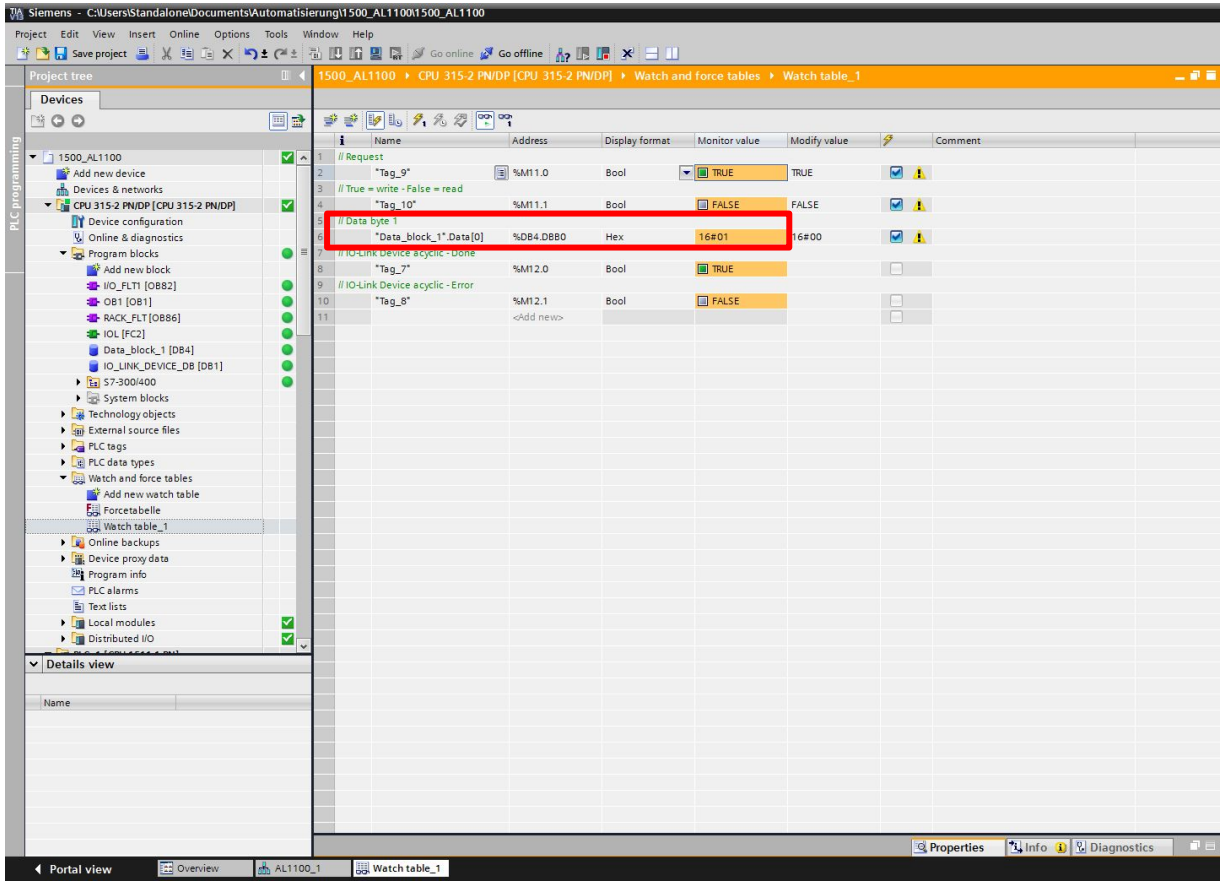
- First input address of the port
- ID and PORT is linked! If you change your port, you have to change your ID as well!!
- CAP = 16#B400



4. Read sensor parameter – S7-315-2 DP/PN

Find the data

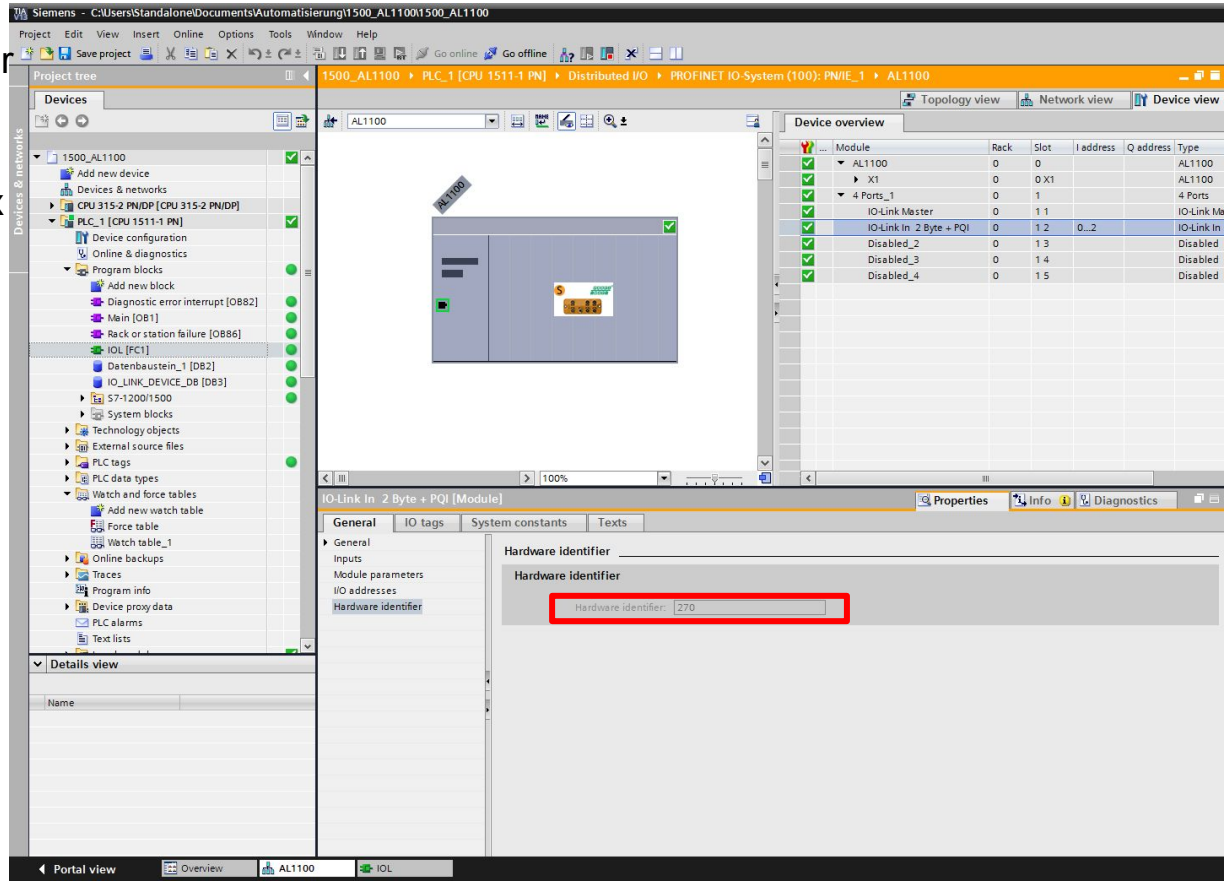
- There will appear your data



5. Read sensor parameter – S7-1500

Find the ID for IO_Link_Device function block

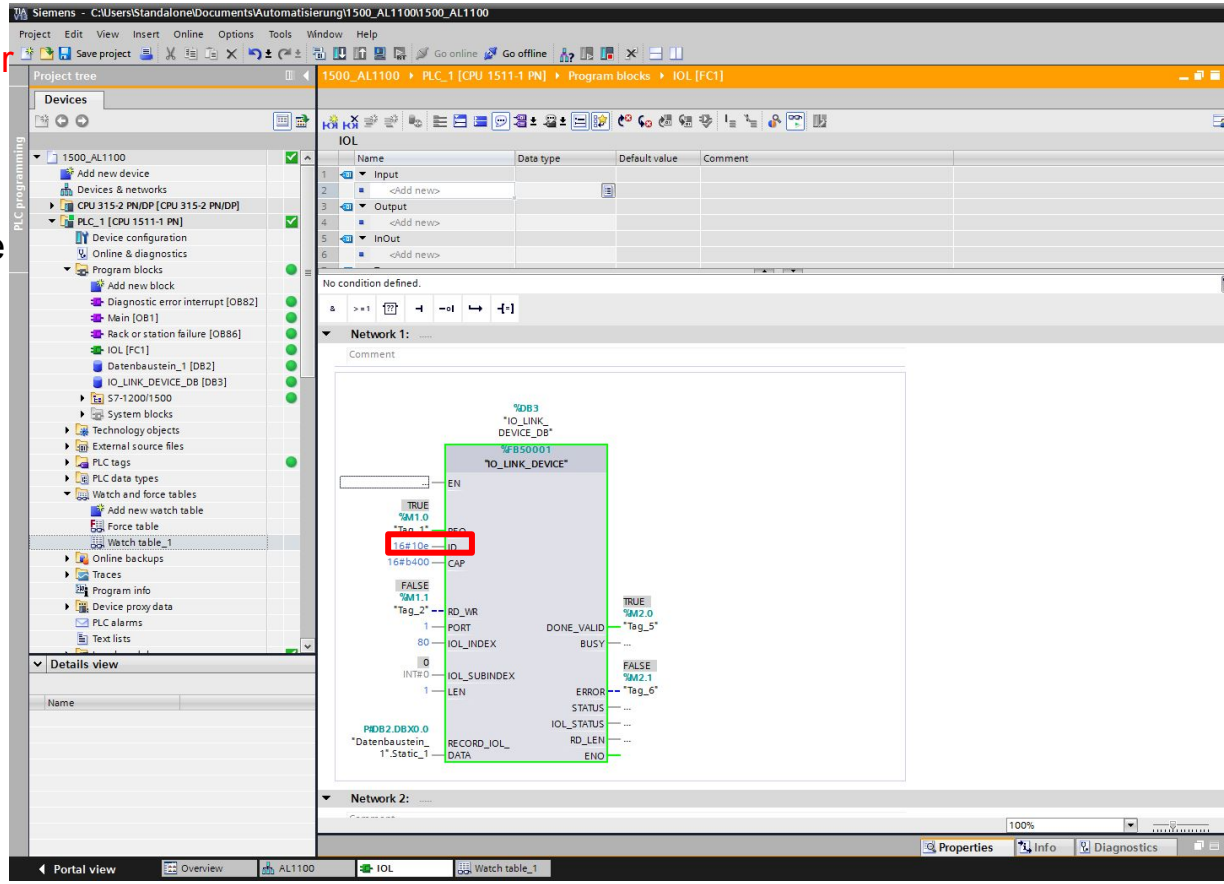
- Hardware indentifier has convert to hexadecimal
- 270 dec -> 10E hex



5. Read sensor parameter – S7-1500

Find the ID for IO_Link_Device function block

- Hardware indentifier
- ID and PORT is linked! If you change your port, you have to change your ID as well!!
- CAP = 16#B400



4. Read sensor parameter – S7-1500

Find the data

- There will appear your data