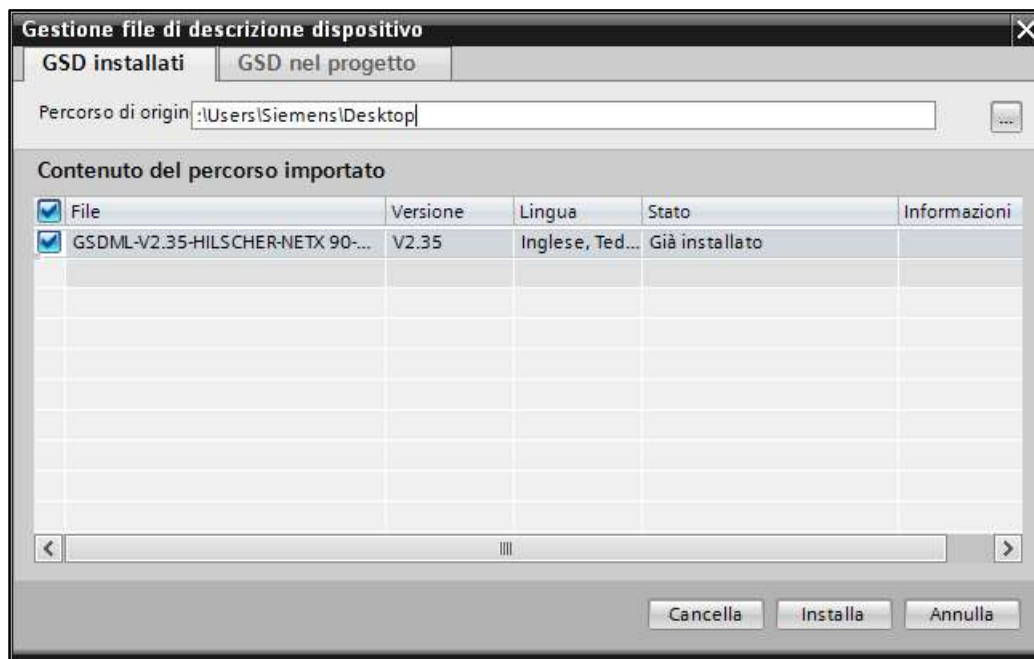
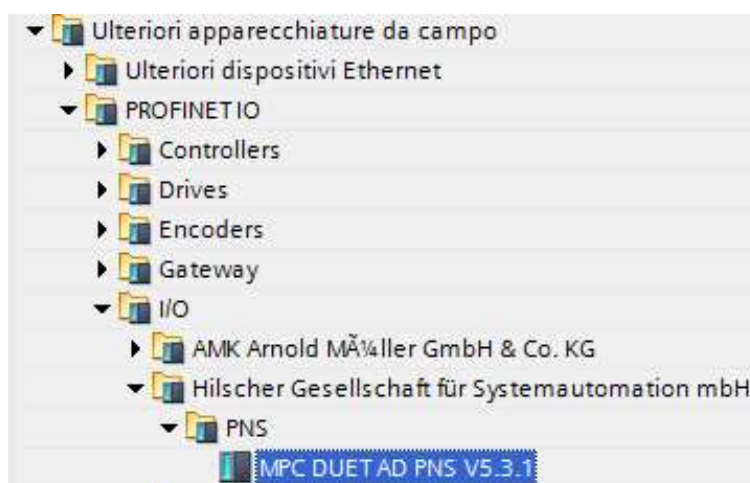


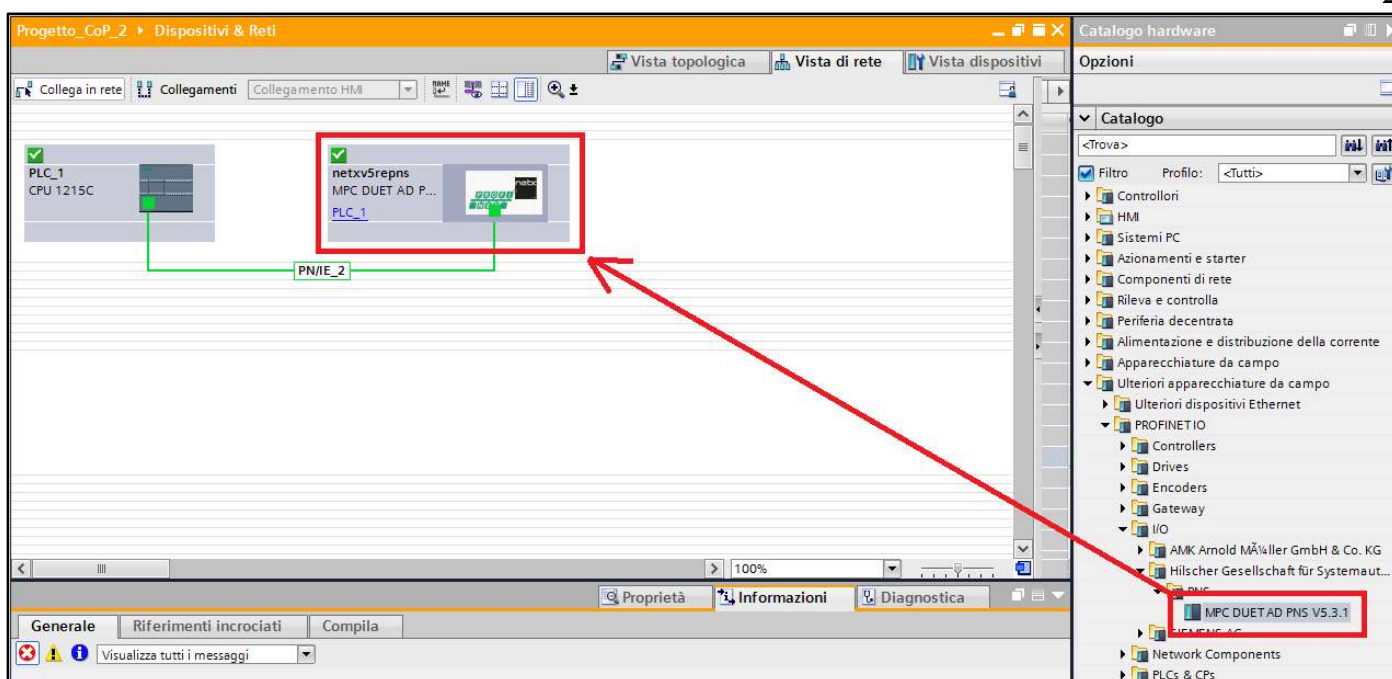
TIA Portal - Configuration guide

- The GSDML file can be found in the software folder of the download area at www.motorpowerco.com. Install the GSDML-file in TIA-Portal in the menu “Options / Manage general station description files (GSD)”.

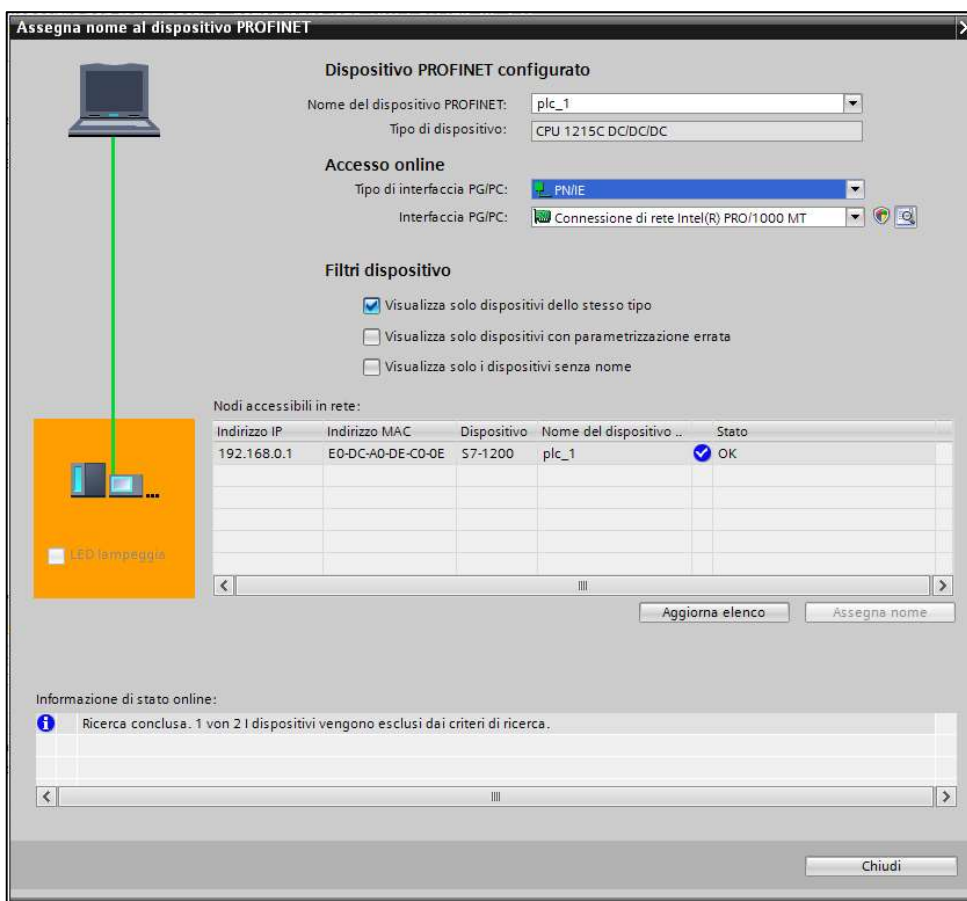


- The DUET AD device can be found in the hardware catalogue under "Other field devices → PROFINET IO → I/O → Hilscher Gesellschaft für Systemautomation mbH → PNS". Add the "MPC DUET AD PNS V5.3.1" to the project and connect it with your PROFINET network.



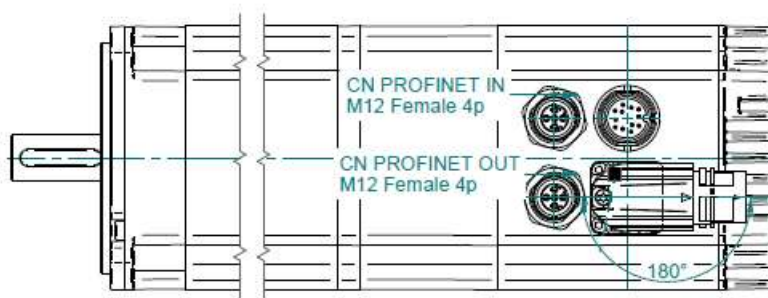


- By calling up the object properties, the DUET AD should be assigned a unique PROFINET name and the IP address be checked for plausibility. The name of the configured device must later be assigned to the physical device.
- When the configuration of the DUET AD has been completed in the hardware configurator, it can be loaded into the PLC. In order for the device to be found by the PROFINET controller, the PROFINET device name must be assigned to the device. To do this, use the "Assign device name" function, which you can access with the right mouse button or in the Online menu when the device is selected. Use the "Refresh list" button to search the network for PROFINET stations. With "Assign Name" the PROFINET device name can be assigned to the device.

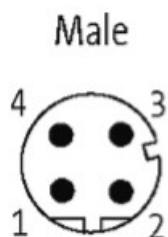


Profinet wirings

- There are two Profinet M12 connectors on DUET AD device. The image below shows the standard position of Profinet input and Profinet output connectors:



- Refer to table below for specific signal functions:



Pin	Signal	M12 plug Profinet	Color	Wire pair
1	TD+	Transmission data +	Yellow	1
2	RD+	Receive data +	White	2
3	TD-	Transmission data -	Orange	1
4	RD-	Receive data -	Blue	2

Profinet cyclic communication

DUET AD exchanges 16 bytes on the fieldbus; 8 bytes are set as controller inputs and 8 bytes are set as controller output

- Controller data input:

Byte	Bit	Category	Designation	Type	Comments
0-1		Statusword	Drive's statusword	UNIT16	Canopen statusword as object 6041h of DS402.
2		Mode of Operation Display	Drive's mode of operation	INT8	Canopen drive operation mode as object 6061h of DS402; modes of operation supported are profile position and profile velocity mode.
3-6		Velocity / Position actual value	Drive's actual position / velocity	INT32	Canopen drive actual position or velocity as objects 6064h and 606Ch of DS402. The object switches automatically when the operation mode changes
7		Spare	Spare byte	BYTE	

- Controller data output:

Byte	Bit	Category	Designation	Type	Comments
0-1		Controlword	Drive's controlword	UNIT16	Canopen controlword as object 6041h of DS402.
2		Mode of Operation	Drive's mode of operation	INT8	Canopen drive operation mode as object 6060h of DS402; modes of operation supported are profile position and profile velocity mode.
3		Homing Method	Drive's homing method	INT8	Canopen homing method as object 6098h of DS402.
4-7		Velocity / Position target value	Drive's target position / velocity	INT32	Canopen drive target position or velocity as objects 607Ah and 60FFh of DS402. The object switches automatically when the operation mode changes

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