# **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)".

Gestione file di descrizione di	spositivo			×
GSD installati GSD nel p	progetto			
Percorso di origin :\Users\Siemens	Desktop			
Contenuto del percorso impo	rtato			
File	Versione	Lingua	Stato	Informazioni
GSDML-V2.35-HILSCHER-NETX	90 V2.35	Inglese, Ted	. Già installato	
<				>
			Cancolla	a Annulla

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



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- 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.

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Assegna nome al dispositivo	PROFINET							×
-		Dispositivo PRO	FINET conf	igurato				
	N	ome del dispositivo P	ROFINET:	plc_1			-	
		Tipo di dis	positivo:	CPU 1215C DC	/DC/DC			
		Accesso online						
		Tipo di interfaco	ia PG/PC:	PN/IE				
		Interface	ia PG/PC:	Connession	e di rete Intel(	R) PRO/100	о мт 🔻 🖲	9
		Filtri dispositivo						
		Visualizza	solo dispositi	vi dello stesso	tipo			
		Visualizza	solo dispositi	vi con parame	trizzazione en	ata		
		Visualizza	solo i dispositi	vi con parame	-	0.0		
			solo i disposi	tivi senza nom	e			
No	di accessibili i	n rete:						
Inc	dirizzo IP	Indirizzo MAC	Dispositivo	Nome del dis	positivo	Stato		
19	2.168.0.1	E0-DC-A0-DE-C0-0E	\$7-1200	plc_1	V	ок		
LED Ismpergia								
-		<u>N</u>		m				
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					Aggion	a elenco	J. [ Assegna	nome
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## **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: •

Male



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



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# 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

	$\alpha$ $11$	1 .	• ,	
•	Controlle	r data	input:	

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

### • Controller data output:

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

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