

TechTip: Configuring the technology module TM Count (SIEMENS 6ES7550-1AA00-0AB0)

This TechTip helps you to configure the Siemens technology module "TM Count" (MLFB 6ES7550-1AA00-0AB0) in EPLAN.

Parts data

This technology module is available to you in the Data Portal and includes both the parts data as well as the macro.

Overview of the used function definitions:

Function definition	Connection point designations	Connection point descriptions	Plug designation	PLC subdevice: Index
PLC box				
PLC connection point, general	1	CH0.A	-X10	0
PLC connection point, general	2	CH0.B	-X10	0
PLC connection point, general	3	CH0.N	-X10	0
PLC connection point, DI	4	DI0.0	-X10	0
PLC connection point, DI	5	DI0.1	-X10	0
PLC connection point, DI	6	DI0.2	-X10	0
PLC connection point, DO	7	DQ0.0	-X10	0
PLC connection point, DO	8	DQ0.1	-X10	0
PLC connection point, PLC-PS (+)	9	24VDC	-X10	
PLC connection point, PLC-PS (M)	10	M	-X10	
PLC connection point, general	11	CH1.A	-X10	0
PLC connection point, general	12	CH1.B	-X10	0
PLC connection point, general	13	CH1.N	-X10	0
PLC connection point, DI	14	DI1.0	-X10	0
PLC connection point, DI	15	DI1.1	-X10	0
PLC connection point, DI	16	DI1.2	-X10	0
PLC connection point, DO	17	DQ1.0	-X10	0

Function definition	Connection point designations	Connection point descriptions	Plug designation	PLC subdevice: Index
PLC connection point, DO	18	DQ1.1	-X10	0
PLC connection point, PLC-CS (+)	41	L+	-X10	
PLC connection point, PLC-CS (+)	42	L+	-X10	
PLC connection point, PLC-CS (M)	43	M	-X10	
PLC connection point, PLC-CS (M)	44	M	-X10	

Settings on the **Properties** tab below the **PLC data** node:

ID	Property	Value
22038	Object description	TM Count 2x24V
20409	PLC station: Type	S71500
22105	PLC type designation	6ES7550-1AA00-0AB0

Additional notes:

- PLC subdevices are not used.
- Channel designations are not assigned here since "technology channels" cannot be exchanged in the AML format. This also applies for the PLC inputs and outputs existing in a "technology channel" if these are used as simple channels.

Further configuration notes

After insertion of the macro in a project, the following data have to be filled with values, for example by using value sets.

ID	Property	Usage at	
		PLC connection point	PLC box
20161	Configuration project	-	✓
20031	Function text	✓	✓
20400	Address	✓	-
20404	Symbolic address	✓	-
20427	Rack	-	✓
20410	PLC card is placed on rack ID	-	✓
20411	Position (slot / module)	-	✓
20419, 20255	Start address of PLC card, Start address 2 of PLC card	-	✓
20408	PLC station: ID	-	✓
20437	PLC card name	-	✓
20417	Object description	-	✓
20253 [1...4]	CPU: Name	-	✓

Further settings:

ID	Property	Value
20548	PLC device: Data length (inputs)	256
20550	PLC device: Data length (outputs)	192

Further notes on the PLC I/O connection points:

- The **PLC address** has to be assigned manually since the connection point cannot be addressed automatically due its position in the address range. Activate the property **Do not include in addressing**.
- Enter the following data to prevent check run errors:
 - For the **Channel designation** a consecutive numerical value beginning with 0
 - The `BOOL` value for the **Data type**

During the data exchange in the AML format no channels are exported for the PLC I/O connection points at the PLC box. Symbolic addresses defined here are exported as free variables and, if necessary, have to be assigned to individual connection points after an import in EPLAN.