

5.11.6 SINEC L1 Submodule

The SINEC L1 submodule is for use with data transmission via the SINEC L1 bus.

Application

The SINEC L1 submodule can be inserted in the following CPU:

Interface Submodule ...	For Use with ...
SINEC L1 submodule	CPU 928B, from version 6ES5 928-3UB12 CPU 948

Circuitry

The SINEC L1 submodule is equipped with a transmitter and a receiver for 20 mA current loop signals. Shown in the following figure is the circuitry for the current loop signals:

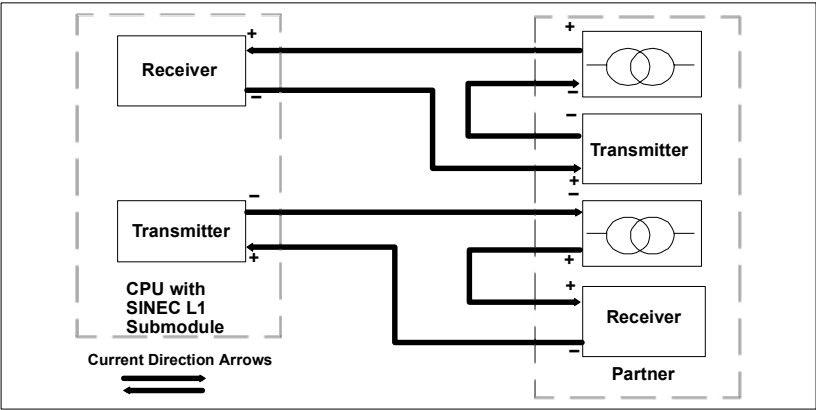


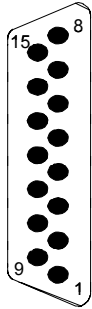
Figure 5-28 SINEC L1 Submodule: Loop Current Direction

Data Transmission Rate

Data transmission via the SINEC L1 interface always takes place at 9600 bps.

Pin Assignments of the SINEC L1 Submodules

Shown in the following figure are the pin assignments of the 15-pin subminiature D-type connector in the front plate of the SINEC L1 submodule:

	Pin	Designation	Current Direction	Remarks
	1	Housing/GND/GND _{ext}		
	2	– RxD	→	
	3	VPG + 5 V _–		
	4	+ 24 V from bus		
	5	24 V ground		
	6	+ TxD	←	
	7	– TxD	→	
	8	Housing/GND/GND _{ext}		
	9	+ RxD	←	
	10	24 V ground	←	Current return
	11	20 mA	→	Current source, transmitter
	12	24 V ground		
	13	20 mA	→	Current source, receiver
	14	VPG + 5 V _–		
	15	24 V ground		

←: from partner to CPU

→: from CPU to partner

Jumper Settings on the SINEC L1 Submodule

When the SINEC L1 submodule is delivered, the jumpers are set as shown in the following figure. As a rule, therefore, you can use the SINEC L1 submodule immediately.

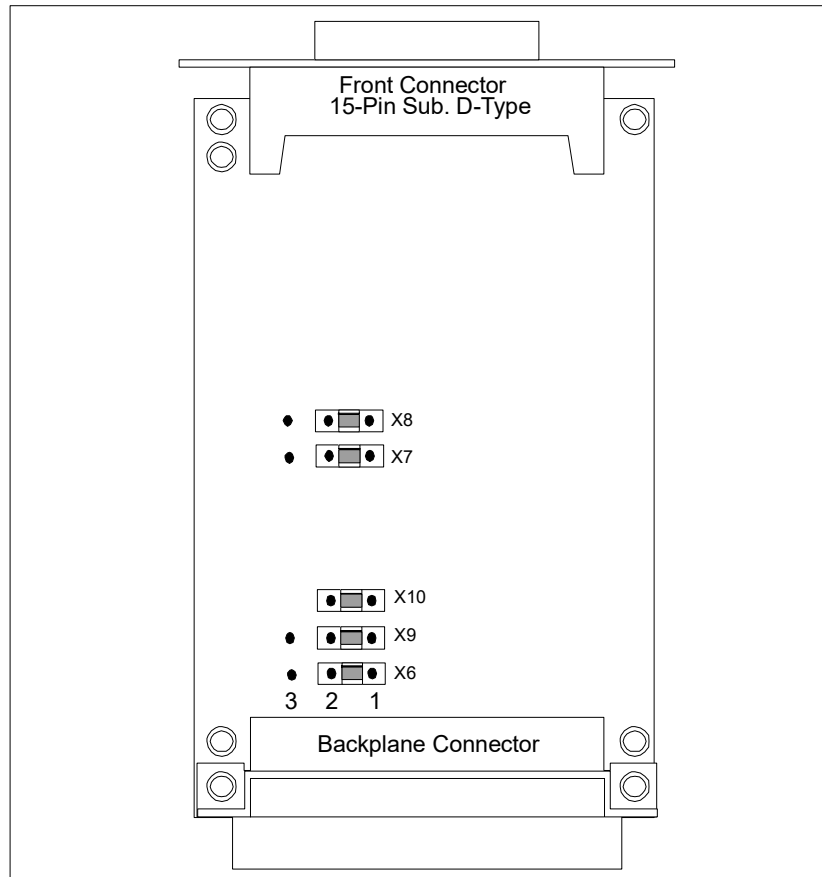


Figure 5-29 SINEC L1 Submodule: Jumper Settings when Delivered

BT 777 Bus Terminal

The connection to the SINEC L1 bus system is provided by the BT 777 bus terminal. A detailed description of the bus terminal can be found in the manual entitled "SINEC L1 Bus System," 6ES5 998-7LA11).

The order number can be found in the ordering information.

Connecting Cable for Point-to-Point Communication

If the CPU communicates as master in a point-to-point link with a slave, a connecting cable can be used instead of the bus terminal.

Shown in the following figure is connecting cable for point-to-point communication from the SINEC L1 submodule in the CPU to a partner.

Connecting cable: CPU - partner (point-to-point communication)

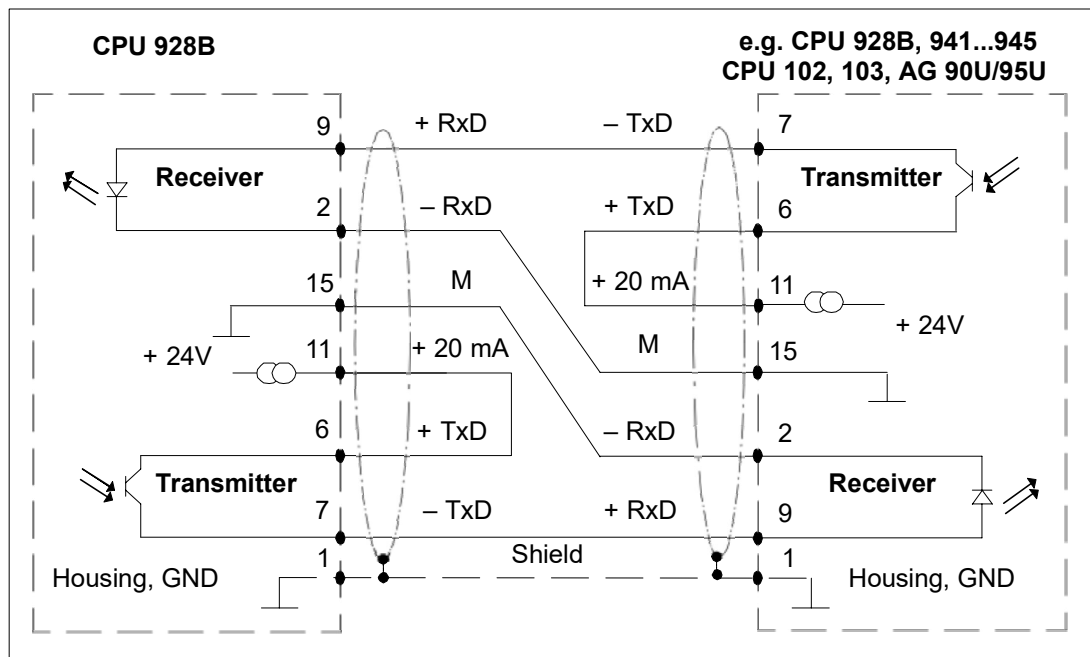


Figure 5-30 SINEC L1 Submodule: Connecting Cable for Point-to-Point Communication via the SINEC L1 Submodule