

6.2 SINEC H1 module CSH11

Order No. 6DD1661-0AB1

Description A connection to the industrial SINEC H1 communications network („Industrial Ethernet“) is established using the CSH11 module.

The module includes the **CP1470** module (CP: Communications Processor) and a dual port RAM to transfer data to the CPU modules.

- Features**
- serial interface to parameterize the CP1470 (X5)
 - serial interface to connect to SINEC H1 (X6)
 - diagnostics LED
 - function selector switch and reset button
 - transferring clock interrupts from the CP1470 onto the C bus
 - L- and C bus connection

Connection to SINEC H1 The 15-pin connector X6 is connected to SINEC H1 **bus coupler** via the SINEC H1 drop cable 727-1. The drop cable must be latched into place using the latch mechanism.

The maximum cable length of the bus coupling cable may not exceed **50 m**.

Ordering data A description of the SINEC H1 drop cable and additional bus components and their Order Nos. are provided in Catalog "SINEC Industrial Communication Networks, IK 10".

Parameterization There is an asynchronous serial interface to parameterize the CP1470 (e. g. setting the Ethernet address) and administration using the configuring software **SINEC NML** from a PC, at the 25 pin connector X5.

SINEC NML must also be ordered:
Order No.: 6GK 1740-0AB01-0EA0

To connect PG7xx programmers or AT-compatible PCs, it also has

- a passive 20 mA line current interface (TTY) as well as
- RS 232 (V.24) interface

with a **9.6 kbaud** baud rate.

Switch A switch with the ADM/RUN/STP settings and a reset button are provided on the front panel.

Switch position	Function
ADM	Resetting the CP1470 via reset button
RUN	Communications is established
STP	Communications is interrupted

Reset button

The CP1470 can be reset using the **reset button**. The switch must first be set to "ADM".

LED

Green	Red	Significance
Dark	Dark	No power supply; temporary initialization status
Lit	Dark	Database and synchronization O.K.
Flashi ng	Dark	Database inconsistent; correct NML configuring
Dark	Lit	No synchronization with the initializing CPU module; possible cause: @CSH11 function block not configured, incorrect slot or incompatible firmware
Dark	Flashin g	Hardware fault
Flashi ng	Lit	Switch in the STOP setting or ADM

The function of the LEDs is also described in the User Instructions „Configuring the communications“.

6.2.1 Application information and noise immunity

- the module may only be used in **forced-ventilated** subracks.
- the serial connecting cables must be latched-in using the latching mechanisms provided.
- noise-immune operation is only possible if the module is tightly screwed into the subrack

Other information

Further information on EMC and ambient conditions, refer to Section „General technical data“.

6.2.2 Connector assignment of the interfaces

Parameterizing interface X5

25-pin sub D socket connector

Pin	RS-232	TTY
1	Screen	----
2	TxD	----
3	RxD	----
7	Ground	----
9	----	+RxD
10	----	-RxD
18	----	+TxD
21	----	-TxD

SINEC H1 interface X6 15-pin sub D socket connector

Pin	Signal name	Code
1	Collision (screen)	CI-S
2	Collision (+)	CI-A
3	Transmit data (+)	DO-A
4	Receive data (screen)	DI-S
5	Receive data (+)	DI-A
6	Power supply (-)	VC
7	Control signal (+)	CO-A
8	Control signal (screen)	CO-S
9	Collision (-)	CI-B
10	Transmit data (-)	DO-B
11	Transmit data (screen)	DO-S
12	Receive data (-)	DI-B
13	Power supply (+)	VP
14	Power supply (screen)	VS
15	Control signal (-)	CO-B
Housing	Overall screen	PG

6.2.3 Technical data

General data

No. of slots occupied	1
Dimensions W x H x D [mm]	20.14 x 233.4 x 220
Weight	Approx. 0.5 kg

Power supply

Rated voltage	min.	max.	Typ. current drain
+5 V	+4.75 V	+5.25 V	2,5 A
+15 V	+14.4 V	+15.6 V	100 mA without connecting to a SINEC H1 bus coupler 600 mA with connecting to a SINEC H1 bus coupler
-15 V	-15.6 V	-14.4 V	Max. 100 mA