

## 1.1 IF797

### 1.1.1 General Information

The IF797 interface module is an aPCI module and can be installed in all corresponding interface module slots (e. g. in the CP360).

The IF797 is equipped with an RS232 interface, a CAN bus interface (with its own object buffer in send and receive direction) and a X2X Link Master interface.

There are two versions:

Model Number	Automation Studio™	Note
3IF797.9	Can be used with up to and including AS 2.4	
3IF797.9-1	Can be used with AS 2.4 and higher with setup 2.4.0.1361	Additional Internal Resources

Table 1: IF797 differences between the versions

### 1.1.2 Order Data


Model Number	Short Description	Image
	<b>Interface Module</b>	
3IF797.9	aPCI interface module, 1 X2X Link Master interface, electrically isolated, 1 CAN bus interface, max. 500 kBit/s, object buffer in send and receive direction, network capable, electrically isolated, 1 RS232 interface. Order 2 x TB704 terminal blocks separately.	
3IF797.9-1	aPCI interface module, 1 X2X Link Master interface, electrically isolated, 1 CAN bus interface, max. 500 kBit/s, object buffer in send and receive direction, network capable, electrically isolated, 1 RS232 interface. Order 2 x TB704 terminal blocks separately.	
	<b>Required Accessory</b>	
0TB704.9	Accessory terminal block, 4-pin, screw clamp, 1.5 mm²	
	<b>Optional Accessory</b>	
0G0001.00-090	Cable PC <-> PLC/PW, RS232, online cable	

Table 2: IF797 order data

**1.1.3 Technical Data**

<b>Product ID</b>	<b>IF797</b>
<b>Short Description</b>	
Communication Module	1 x RS232, 1 x CAN bus, 1 x X2X Link Master
<b>interfaces</b>	
Interface IF1 Type Design Maximum Transfer Rate	RS232 9-pin DSUB connector 115.2 kBit/sec
Interface IF2 Type Design Maximum Transfer Rate	CAN bus 4-pin multipoint connector 500 kBit/sec
Interface IF3 Type Design	X2X Link Master 4-pin multipoint connector
<b>General Information</b>	
Status Display	2 LEDs for sending/receiving data for IF1 1 LED each for sending/receiving data for IF2 and IF3
Diagnostics Data Transfer	Yes, with status LEDs
Electrical Isolation PLC - IF1 PLC - IF2/IF3 IFx - IFx	No Yes Yes
Power Input 3.3 V 5 V Total	0.68 W 1.28 W 1.96 W
Certification	CE, C-UL-US, GOST-R
<b>Mechanical Characteristics</b>	
Slot	Insert e.g. in CP360
Protection	IP20
Operating/Storage Temperature	0°C to +60°C / -25°C to +70 °C
Humidity	5 to 95% (non-condensing)
Note	Order 0TB704.9 terminal blocks (2x) separately

Table 3: IF797 technical data

## 1.1.4 Additional Technical Data

Product ID	IF797
<b>IF1 interface, RS232</b>	
Controller	UART Type 16C550 compatible
FIFO	16 bytes in send and receive direction
Input Filter / Protective Circuit	Yes
Maximum Distance	15 m / 19,200 Bit/sec
Handshake Lines	RTS, CTS
Network Capable	No
Data Formats Data Bits Parity Stop Bits	5 to 8 Yes / No / Even / Odd 1 / 2
<b>IF2 interface, CAN bus</b>	
Controller	Controller SJA 1000
Maximum Distance	1000 m
Maximum Transfer Rate Bus Length ≤60 m Bus Length ≤200 m Bus Length ≤1,000 m	500 kBit/sec 250 kBit/sec 50 kBit/sec
Network Capable	Yes
Bus Termination Resistor	Externally wired (optional)
<b>IF3 Interface, X2X Link Master</b>	
Number of Stations	Max. 253
Distance between two stations	Max. 100 m
Network Topology	Line
Internal Bus Supply	No
Bus Termination Resistor	Internal

Table 4: IF797 additional technical data

1.1.5 Operational and Connection Elements

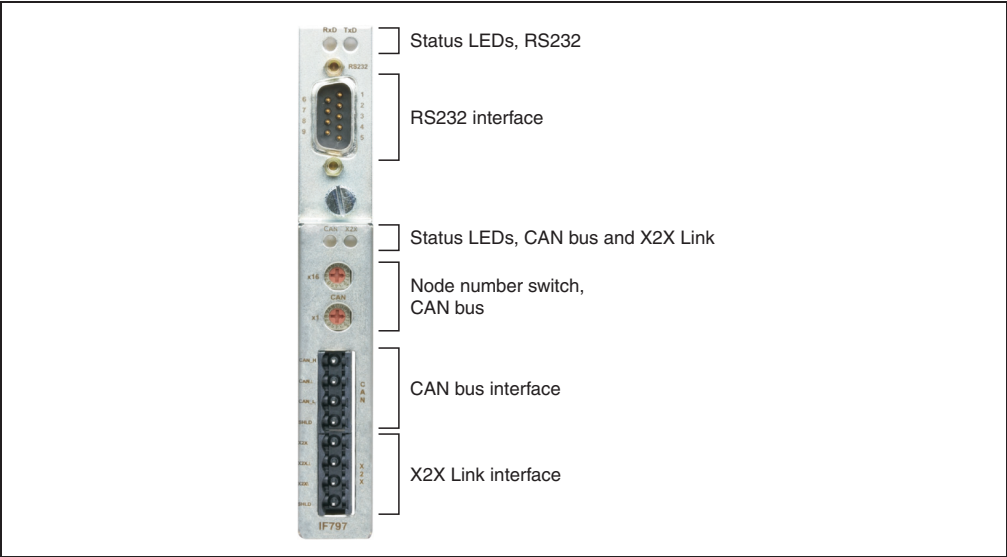


Figure 1: IF797 operational and connection elements

1.1.6 Status Display RS232 Interface


Image	LED	Color	Description
	RXD	Orange	The module receives data via the RS232 interface.
	TxD	Orange	The module sends data via the RS232 interface.

Table 5: IF797 status display RS232 interface

1.1.7 Status Display CAN Bus and X2X Link Interface


Image	LED	Color	Description
	CAN	Orange	The module sends/receives data via the CAN bus interface.
	X2X	Orange	The module sends/receives data via the X2X Link interface.

Table 6: IF797 status display X2X Link interface

1.1.8 RS232 Interface (IF1)


Interface	Description	Pin Assignments		
		Pin	RS232	
<div>Application Interface RS232</div>  <div>9-pin DSUB plug</div>	<p>The standard RS232 interface is not electrically isolated.</p> <p>LEDs show on the interface whether data is being received (Rx/D) or sent (Tx/D).</p> <p>The shield is connected to the DSUB connectors housing.</p> <p>Maximum Transfer Rate: 115.2 kBit/s Max. cable length: 15 m</p>	1	NC	
		2	RXD	Receive Signal
		3	TxD	Transmit Signal
		4	NC	
		5	GND	Ground
		6	NC	
		7	RTS	Request To Send
		8	CTS	Clear To Send
		9	NC	

Table 7: IF797 RS232 Interface (IF1)

1.1.9 CAN Bus Node Number

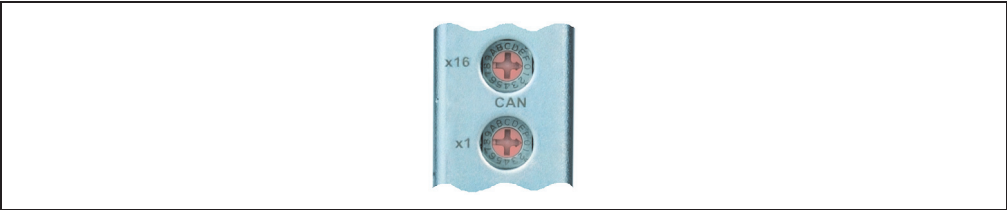


Figure 2: IF797 CAN bus node number switch

The node number for the CAN bus interface (IF2) is set with the two hex switches.

### 1.1.10 CAN Bus Interface (IF2)

A 120  $\Omega$  bus terminating resistor is included with delivery. The resistor can be inserted between pin 1 and pin 3.

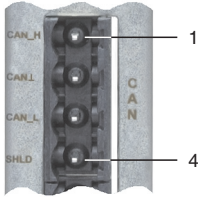
Interface	Description	Pin Assignments		
<b>Application Interface CAN bus</b>   4-pin multipoint connector	The electrically isolated CAN bus interface is a 4-pin multipoint connector.  Maximum Transfer Rate: 500 kBit/s bus length: $\leq 60$ m 250 kBit/s bus length: $\leq 200$ m 50 kBit/s bus length: $\leq 1000$ m	Terminal	CAN bus	
		1	CAN_H	CAN High
		2	CAN_L	CAN Ground
		3	CAN_L	CAN Low
		4	SHLD	Shield

Table 8: IF797 CAN bus interface (IF1)

### 1.1.11 X2X Link Interface (IF3)

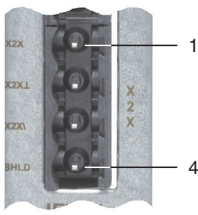
Interface	Description	Pin Assignments		
<b>Application Interface X2X Link</b>   4-pin multipoint connector	The X2X Link is a 4-pin multipoint connector and is electrically isolated.	Terminal	X2X Link	
		1	X2X	
		2	X2X_L	
		3	X2X\	
		4	SHLD	Shield

Table 9: IF797 X2X Link interface (IF1)

### 1.1.12 Firmware

#### SG3

The IF797 module is not supported.

#### SG4

The firmware is a component of the PLC operating system of B&R Automation Runtime™. It is loaded to the IF797 module during every restart.