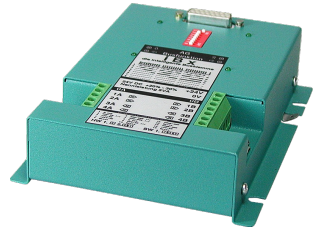
Handling-Short Instruction for IBX-Busterminal



Intelligent networking of S5-PLCs - Replacement for no longer available BT-777-terminal

With the intelligent busterminal iBx it is possible to program **up to 30 PLC's with one PG directly** without changing the PG-port. His integrated inteligence allows the iBx to control active the PG-bustrace, so it can recognice if the informations, which are on the bus, are destinated to his connected PLC.

If the iBx recognized that the attached PLC was dialed, she makes independently a connection to the connected PLC. No cycle time of a PLC therefore is consumed while other participants communicate at the bus.

Since the iBx actively takes the selection the PLC doesn't have to take on this work and needs therefore no-one extra program.

No change of the software must be carried out since the address simply can be adjusted by Dip-Switch at the iBx to the attitude of the PG-Bus-address in the PLC.

At the attitude of the address 0 works the iBx in the through-connection (standard converter TTY - RS485), i.e. the supervision of the PLC selection is switched off.

A slavenumber must in this case individually be typed in the PLC-programm so that this work can be taken on by the PLC.

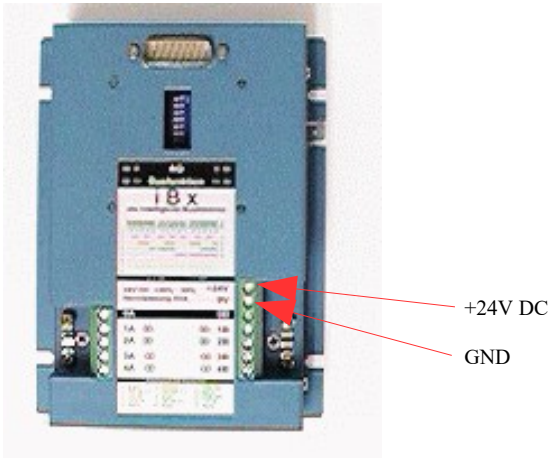
Earth connection on PE:

In the right assembleflange the iBx has got extra an earthing connection (indicated correspondingly) availably.

A good direct connection to the potential earth must absolutly be made at this earthing connection. Ensuring also around an optimal function of the bus system.

Connection of the external +24V DC

The external supply of the + 24V DC is done via the integrated Phoenix socket. The external supply voltage must not fall below or exceed the value of + 24V DC ± 20%. The maximum current consumption is 208mA.



Dip-switch configuration for Slavenumber

The respective adressing of a PLC is adjusted abot the DIP-switches of the corresponding iBx-terminal. A possible slavenumber would be going through 1 to 30. Of address on one must not be respected. (!! Respect: A slavenumber may be available in the bus only one time!!)

Valency of the Dip-switch:

Busaddress	1111111111	2222222222	3
	0123456789	0123456789	0123456789	0
DIP 1	-x-x-x-x-x	-x-x-x-x-x	-x-x-x-x-x	-
DIP 2	--xx--xx--	xx--xx--xx	--xx--xx--	x
DIP 3	----xxxx--	--xxxx----	xxxx----xx	x
DIP 4	--------xx	xxxxxx----	----xxxxxx	x
DIP 5	----------	------xxxx	xxxxxxxxxx	x
DIP 6	----------	----------	----------	-
DIP 7	----------	----------	----------	-
DIP 8	----------	----------	----------	-

Note: The slave address is set to "binary".

„x“ = DIP ON „-“ = DIP OFF

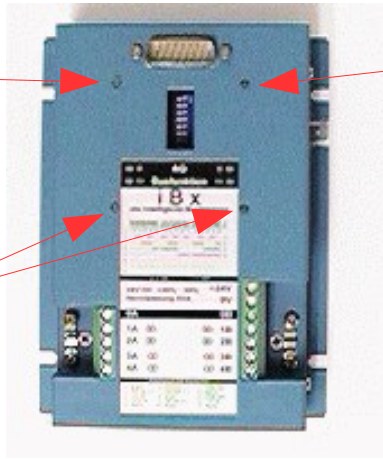
Address "0" corresponds to loop-through operation, i.e. it sends the data from the bus directly to the PLC and the response from the PLC back to the bus. The L1 number must be entered in the PLC. The PLC must take over the slave identification and the evaluation itself.

Control-LEDs

The four controll-LEDs at the iBx shows the data signals during the communication at the bus on. This means all LEDs must be off in the rest condition (any communication) at correct connection.

direction **from** PG or PLC **to** iBx

direction **from** iBx **to** PG or PLC



data-communication on the iBx-Bus

PG/PC connection at the Bus

The connection on the bus with the PG/PC is carried out via an iBx-terminal with the Dip-switch attitude "0" (masterfunction).
Since the TTY-interface on the iBx is as established as a PLC-interface, can here be used a conventionally cable.

Attention:

The iBx terminal must be supplied externally, since the PG / PC does not provide the supply voltage for the iBx terminal.

You can find more about the IBX terminal and the current device manual for the IBX terminal on the product page.

Under the web-address https://www.process-informatik.de are product specific documentations or software-driver/-tools available to download.
If you have questions or suggestions about the product, please don’t hesitate to contact us.

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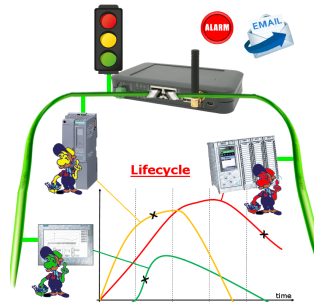
Profinet life cycle monitoring



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