The new trends in control engineering are industrial fieldbus systems such as Profibus-DP, InterBus or CAN-open. By ever faster PLC or industry PC a high arithmetic performance is centrally available, at the local machine only in- and outputs are requested for sensors and for actuators. ESB offers 8 digital inputs and 8 digital outputs. By using the plug-in card the connection to different industrial fieldbus systems and to the ZANDER B-ESI-Bus can be made.



- *1 basis module for all usual fieldbus systems*
- *8 inputs and 8 outputs*
- *Alternatively transistor- or relay outputs*
- *Exchangeable plug-in card for different fieldbus systems*
- *Electrically isolated between I/O and bus*
- *LEDs for all inputs and outputs*
- *Easy installation, plug-in screw connection*
- *Compact durable housing for DIN-rail*

CANopen PROFI InterBus RS232 RS485

5

Structure

The **ESB** offers 8 digital optocoupler inputs, which are used with DC 10V-30V. As outputs there are 8 short circuit proof transistor outputs or alternatively 8 relay outputs available, which are electrically isolated from the remaining circuit.

The transistor outputs have a contact rating of DC 30V and 500mA, the relays of DC 30V or AC 250V and 5A.

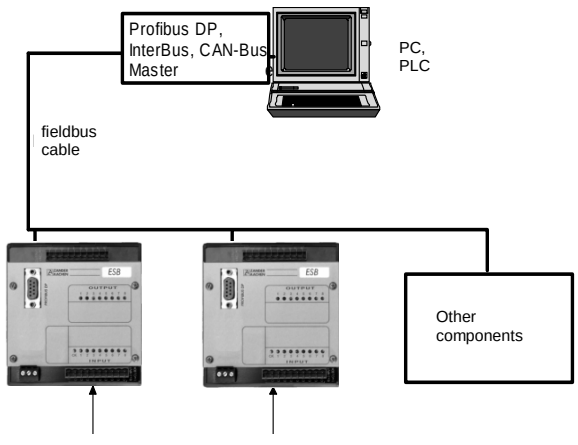
20-pin plug-in connection takes up any ZANDER industrial fieldbus module:

- **B-DP** for Profibus DP or Siemens L2
- **B-IS** for Interbus
- **B-CAN** for the CAN open
- **B-ESI, V-ESI** for the simple ZANDER fieldbus connectable via V24 interface.

The voltage supply **integrated** in the ESB produces from the fieldbus modules needed stabilized voltage of DC 5V and filters fast transient disturbances and surge impulses from supply voltage effectively.

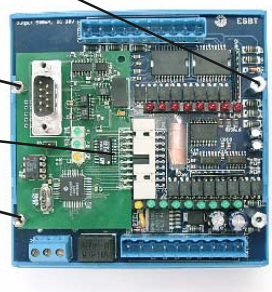
Connection allocation

Connection	Signal
L+	+24V supply
M	0V supply
PE	protective grounding
E1..E8	8 digital inputs
C	0V input
A1..A8	8 digital transistor outputs
U+	10-30V for transistor outputs
0V	0V for transistor outputs
alternatively:	
A0..A7	8 digital relay outputs
CA	comm. connection A0..A5



Installation of the industrial fieldbus plug-in card

1. Unsrew four fixing bolts of the cover
2. Unsrew two spacer pins at the card location
3. Put in the card
4. Screw in the pins again
5. Install cover



Note:
The installation of a fieldbus plug-in card may only take place on an electrostatically protected place and via ESD protected personnel.

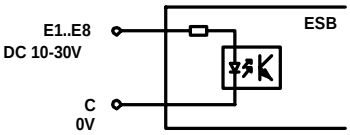
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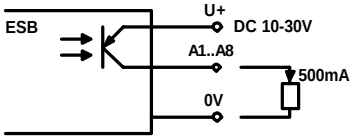
Universal Industrial Fieldbus Module ESB

Diagram Inputs / Outputs

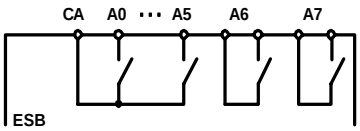
Inputs



Transistor outputs

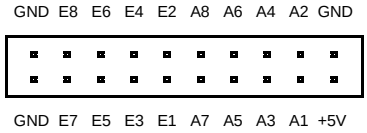


Relais outputs

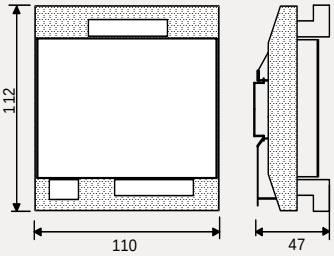


Plug-in connection

The ESB has a pin row with gilded square pins in the 2.54mm grid line dimension for the admission of a ZANDER industrial fieldbus card.



Signal name of the pin:
+5V, GND: stabilized voltage for fieldbus plug-in
E1..E8: digital inputs (5V, TTL)
A1..A8: digital outputs (5V, TTL)



Specifications	
Operating voltage	DC 24V ±10%
Residual ripple	max. 10%
Power consumption	approx. 50mA plus power consumption of the used fieldbus module
Inputs	DC10-30V, max. 8,5mA
Relay outputs (ESBR)	max. AC 250V, DC 30V, 5A max. sum. current at CA: 15A
Contact life	mech. 2 x 10^7 switching operations electr. 10^5 switching operations
Transistor outputs (ESBT)	DC10-30V, 500mA, short-circuit-proof
LED-display	1 x yellow (run), 8 x green (inputs), 8 x red (outputs)
Connection terminal	each 2.5mm², plug-in connection
Temperature range	0 - +60°C
Installation position	any
Mounting	35mm DIN-rail EN 50022-35
Protection	IP20
Weight	approx. 200g

Order-No	Type
586180	Fieldbus module ESBT transistor-outputs
586185	Fieldbus module ESBR relay-outputs

Necessary accessories

The necessary plug-in card for the desired bus connection asks separately orders. See also separate product desc-

Order-No	Type
586190	Profibus DP-plug-in card B-DP
586191	InterBus-plug-in card B-IS
586192	CAN-Bus-plug-in card B-CAN
586193	ESI-RS485-plug-in card B-ESI
586194	ESI-RS232-plug-in card V-ESI

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