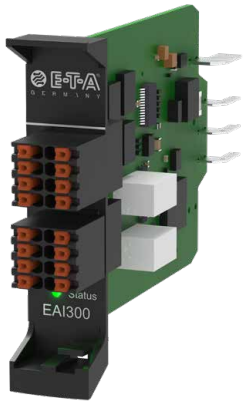
E-T-A EAI300 External Alarm Interface *ControlPlex*® Rack

Description – External Alarm Interface

In combination with the RCI10, the **EAI300** External Alarm Interface allows recording of external sensor data and external alarm generators as well as their alerting on the management system. It includes additional monitoring and display of door contacts, fire alarm boxes or temperature sensors in the engineering room. It means best possible system transparency and fast intervention in the event of alarm. Thanks to programmable logical links, operating conditions of the ESX300-S can be connected with external encoder signals, allowing automatic switching operations. The EAI300 can easily be plugged into empty slots, instead of the electronic circuit protector ESX300 S, of the ***ControlPlex® Rack*** system without shutting down the connected loads. This allows connection of external signalling devices in the control cabinets without requiring additional space.



Features

- Voltage ratings: DC 20 V…DC 75 V
- Integral bus interface
- External terminals, two plug-in type 8-pole connectors terminals with spring force, mating connector on the front
- Eight digital inputs
- One analog input
- Two digital outputs

Further information

The current data sheet as well as other relevant documents are available on our website: www.e-t-a.de/d850

Benefits

- Saving additional hardware and costs through connection of external signalling devices, e.g. sensors (door contacts or fire alarm boxes in the engineering room)
- No additional space requirement for routing external alarm signals
- Integral voltage output allows power supply of switch contacts
- Logical link possible of various external and internal signals to form one group signal
- Decoupled potential-free inputs and outputs
- Up to 20 EAI300 sub-assemblies possible per ***Power-D-Box®*** **CP**

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Technical data (T_{amb} = 25 °C, U_B = DC 48 V)

Rated voltage U_B	DC 20 V...DC 75 V (Power-D-Box input voltage)
Dielectric strength	DC 100 V for 1 ms
Power consumption I_0	typically 40 mA at DC 48 V operating voltage (with unloaded DC 24 V supply output)
Power consumption	typically 1.9 W
Interfaces and connection technology	
Internal interface	EL-BUS® and supply via blade terminals
External connection	two plug-in type 8-pole connection sleeves with spring-loaded connectors on the front side. Cable cross section 0.14 mm² ... 1.5 mm²
Digital inputs	
Number	8
Isolation	physically isolated
Current consumption	1 mA at 24V
Input resistance	22.1 kOhm
Voltage potential »HIGH« level	DC 12 V … DC 72 V
Voltage potential »LOW« level	DC 0 V … DC 4 V
Analog inputs	
Number	1
Isolation	physically isolated
Measuring input	4 ... 20 mA
Supply terminal for I/O	
Voltage ratings	typically DC 24 V (at ***Power-D-Box***® supply voltage ≥ DC 30 V)
Max. load current:	100 mA
Digital outputs (relay outputs)	
Number	2
Isolation	potential-free break contact
Voltage range – contact	DC 12 V … DC 72 V
Max. load current of contact	2 A
Technical data:	
Design	rack without enclosure
Degree of protection	operating area IP20 (when rack is fully populated and SUB-D connectors are plugged in) terminal area IP00 DIN 40050
Mass	typically 40 g
Mounting position	vertical, cooling by means of convection
Status indication / momentary switch (function see table 5)	
Status LED	multicoloured (red, green, blue)

Technical data (T_{amb} = 25 °C, U_B = DC 48 V)

Environmental conditions	
Operating temperature	-20...+60 °C (without condensation, cf. EN 60204-1)
Ambient temperature	-20...+70 °C (without condensation see EN60204-1)
Storage temperature	-20 °C … +70 °C
Humidity	96 hours at 95% RH, 40 °C, to IEC 60068-2-78, climate class 3K3 to EN60721
Marking and approvals	
ESD	4 kV/air 8 kV
EMC requirements	to EN 61000-6-3 / EN 61000-6-2
Vibration resistance	3 g to IEC 60068-2-6,
Insulation co-ordination (IEC 60934)	1000 V (to EN 60934 – table 20 rated voltage > 50 V – ≤ 125 V
Marking	CE in accordance with EMC directive (EN 61000-6-3 & EN 61000-3-2)
Conformity	EN 60950-1 / UL 60950-1 compliant (when installed / in PDB)

Order numbering code

EAI300 External Alarm Interface

S standard, pluggable (front plate, without housing)

Internal interfaces

0 with EL-BUS interface (standard)

Voltage range (supply)

0 DC 20 V – DC 75 V

External interfaces

0 8 digital inputs, 1 analog input 4-20 mA, 2 digital output

Software protocols

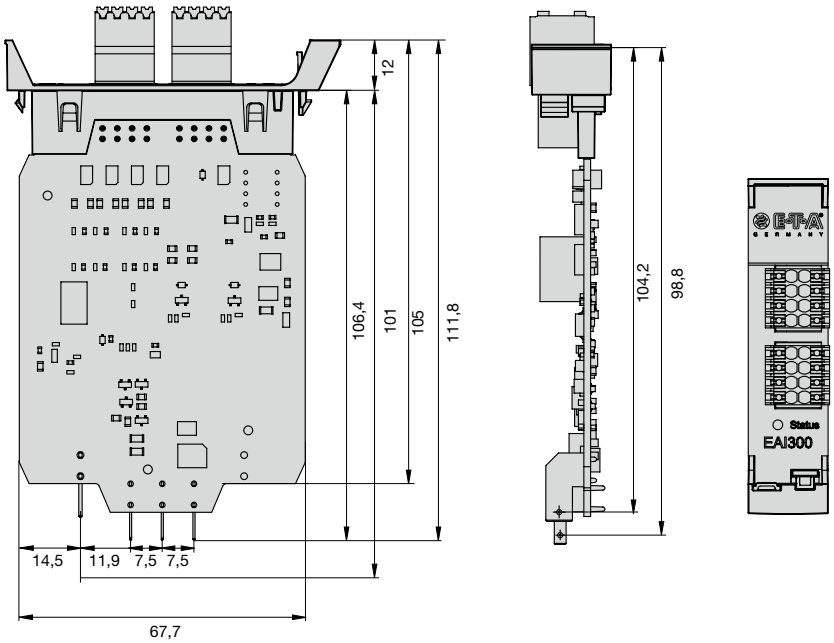
A standard HTTP / SNMP / SSH

EAI300 - 0 0 0 - A ordering example

Table 5: operating states – status indication by LED

Operating condition **EAI300**	**LED indication** **EAI300**
EAI300 normal duty	green
EAI300 normal duty: digital input has status »High«	green / cyan blue blinking
EAI300 normal duty: identified new circuit protector ESX300 (relay output configured as group signal)	5 seconds blue
EAI300 fault condition: no control interface RCI10 available	red blinking
EAI300 fault condition: EAI300 internal fault	red
EAI300 fault condition: no RCI10 available and digital input on status »High«	red / cyan blue blinking

Dimensions



Terminal selection