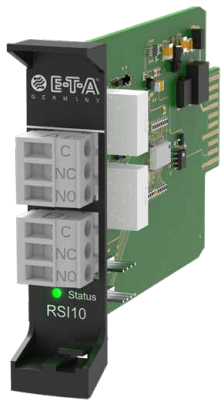
RSI10 Remote Signalling Interface *ControlPlex*® Rack

Description– Remote Signalling Interface

The **RSI10** Remote Signalling Interface ensures reliable and early detection of critical system conditions. Via an internal bus, it communicates with all circuit protectors installed in ControlPlex®Rack. Should one of circuit protectors disconnect the related load due to an overcurrent or similar, the **RSI10** will externally indicate this status via a potential-free group signal, e.g. to a control room. It is the perfect way to minimise downtimes and reduce operational and maintenance costs.



Features

- Voltage ratings DC 20 V ... DC 75 V
- Integral bus interface
- External terminals, two plug-in type 3-pole screw terminals with mating connector

Benefits

- Early failure detection due external alarm
- Extended potential-free failure signalling (overvoltage, undervoltage, short circuit, overcurrent, excess temperature etc.)
- Enhanced alarm indication on site by means of integral LED
- Ease of retrofit without system downtimes
- Conveniently accessible contact terminals on the front
- Compatible for future system extensions with the RCI10 remote control and monitoring module

Further information

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

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 25 mA at DC 48 V operating voltage
Power consumption	typically 1.2 W
Interfaces and protocols	
Internal interface	internal interface ELBUS/ power, 20-pole pcb connector
External connection	two plug-in type 3-pole screw terminals with mating connector
Auxiliary circuit (alarm contacts)	
Contact	potential-free change-over contact
Max. switching voltage	DC 72 V
Rupture capacity	60 W / 62.5 VA
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 60 g
Mounting position	vertical, cooling by means of convection
Status indication / momentary switch (function see table 3)	
Status LED	multicoloured (red, green, blue)
General data	
Leakage current in the off state	vertical
Back-up fuse	typically 1 mA
Environmental conditions	
Operating temperature	-20...+60 °C (without condensation, cf. EN 60204-1)
Ambient temperature	-20 °C...+60 °C without condensaton see EN50240-1
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,
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

RSI	Remote Signalling Interface						
	10	standard, pluggable (front plate, without housing)					
		Internal interfaces					
		0	with EL-BUS interface (standard)				
			Voltage range (supply)				
			0	DC 20 V – DC 72 V			
				External interfaces			
				0	potential-free group signal connection		
					External connection		
					A	2 x 3-pole, screw terminals, pluggable	
RCI	**10**	**-**	**0**	**0**	**0**	**-**	**A** ordering example

Dimensions

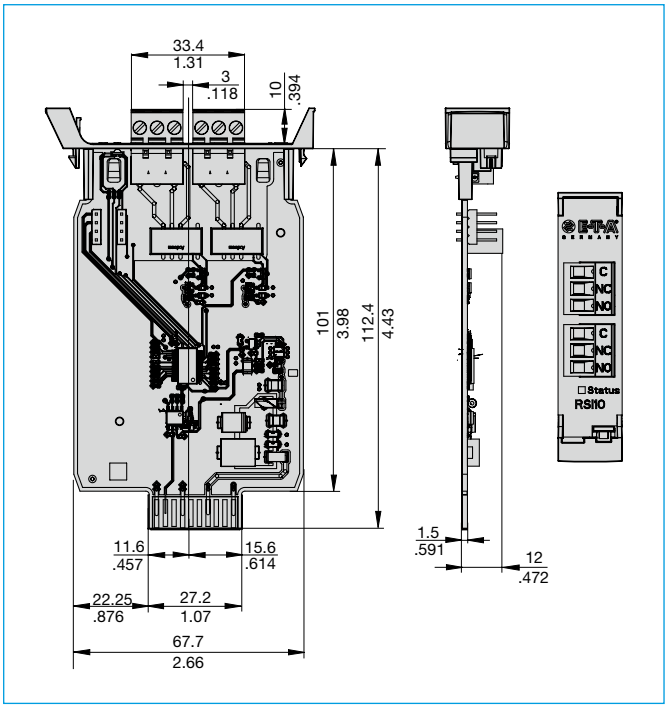


Table 3 Operating conditions and LED indication

Operating condition circuit protector ESX300-S-3xx	**Load output circuit protector ESX300-S-3xx**	**LED status RSI10 sub-assembly**	**Auxiliary contact RSI10 sub-assembly Group signal »break contact«**	**Status RSI10 sub-assembly**
no error -> OFF	locked	green	open	normal operation
normal operation	connected	green	open	normal operation
error undervoltage with device in OFF condition (15 V < U < 37 V)	locked	green	closed	normal operation
error undervoltage with device in OFF condition (U > 72 V)	locked	green	closed	normal operation
overcurrent error detected ($I > I_N < 1.2 \times I_N$); over-current failure has to be detected for approx. 30 sec before disconnection is effected	connected	green	open	normal operation
error - overcurrent or short circuit disconnection	locked	green	closed	normal operation
error undervoltage (U > 15 V < 37 V)	connected	green	closed	normal operation
error overvoltage (72 V, < U < 75 V)	connected	green	closed	normal operation
error: no voltage	locked	OFF (green)[1]	closed	normal operation[1]
error high temperature	locked	green	closed	normal operation
----------	----------	green	closed	no ESX300-S circuit protector available check if ESX300-S bus version is plugged in
----------	----------	red	closed	internal RSI10 error or internal bus error
----------	----------	5 sec blue	open	one new circuit protector ESX300-S was identified

[1] In a redundant system with two supply voltages, the green LED lights if only one voltage supply fails, otherwise the RSI10 sub-assembly is deadvoltage.