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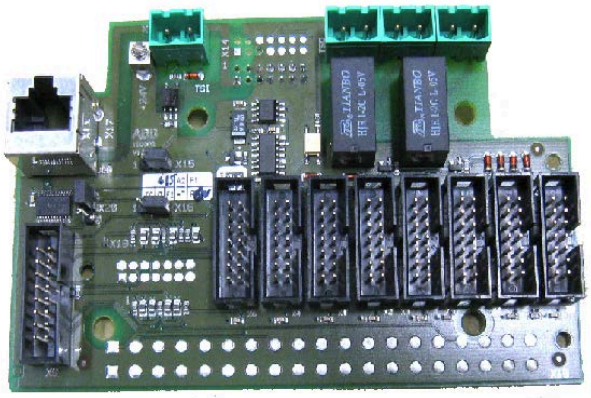
Remote Terminal Units - Data sheet

Bus connection unit for 560SFR02 560BCU05

RTU560 product line



560BCU05 R0001 (Basic)

– Alarm and warning contacts
– Minute pulse in- and output

For 2 units 560CMR0x only one basic unit is required. For the third 560CMR0x one extension unit 560BCU05 R1002 is required.

– Extension kit for 10 additional 560CMR0x, 10 pcs per package

Application

The Bus Connection Unit 560BCU05 R0001 is designed to make the RTU560s TSI, TSO, Alarm and Warning signals accessible to the outside.

By using the bus connection unit 560BCU05 R0001, up to 8 communication units can be used in a rack configuration.

To expand the RTU560 system bus to another rack (23ET24, 560SFR02), an 8 pole RJ45 connector is available. For cabling, a shielded 8 pole RJ45 patch cable can be used.

Characteristics

The Bus Connection Unit 560BCU05 R0001 is used in the racks 23ET24 or 560SFR02. It is mounted on the back-side of the rack, and fixed by four snap-in bolts.

The connection to the RTU560 communication units is made with up to eight connectors to slots occupied by CMUxx Modules. Two connector cables are delivered with the 560BCU05 R0001. Additional connector cables are available as 560BCU05 R1002.

All supply voltages and control signals are interfaced by a direct Board-to-Board connection (X14). To enable operation using a 23ET24 rack, a 24V positive supply cable needs to be connected to a screw terminal connector X21.

The system signals ALARM and WARNING can be accessed via relay contacts and are supervised with a watchdog function. If the trigger from the communication unit is missing for more than 30 seconds, both relay contacts are activated and the contacts are closed.

The external minute interrupt of a real time clock 560RTCxx is connected to the system via an internal isolated optical-coupler (TSI) and routed to the time master of the RTU560 system. The minute pulse output (TSO) is available for other applications.

Also the signals for supervising redundant power supply units are distributed.

If it is intended to use a single CMU inside a standalone rack only a unit 560BCU05 R0003 is required for correct bus termination (without usage of ALR, WRN, TSI, TSO and supervision of redundant power supply units).

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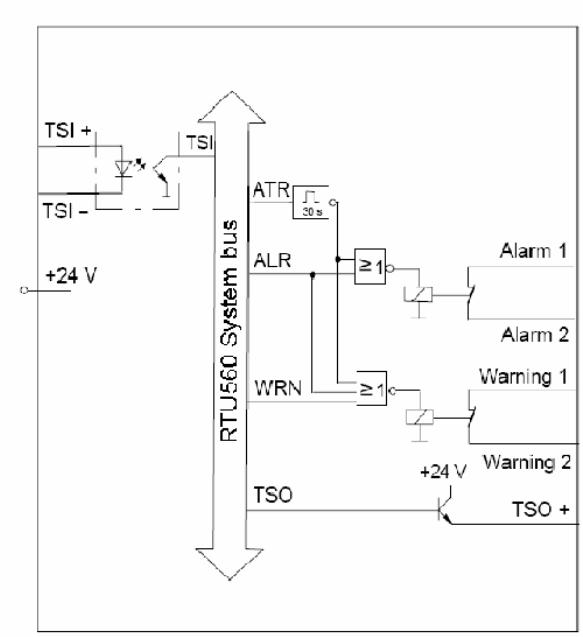

Figure 1: Function Block Diagram 560BCU05 R0001 Basic board

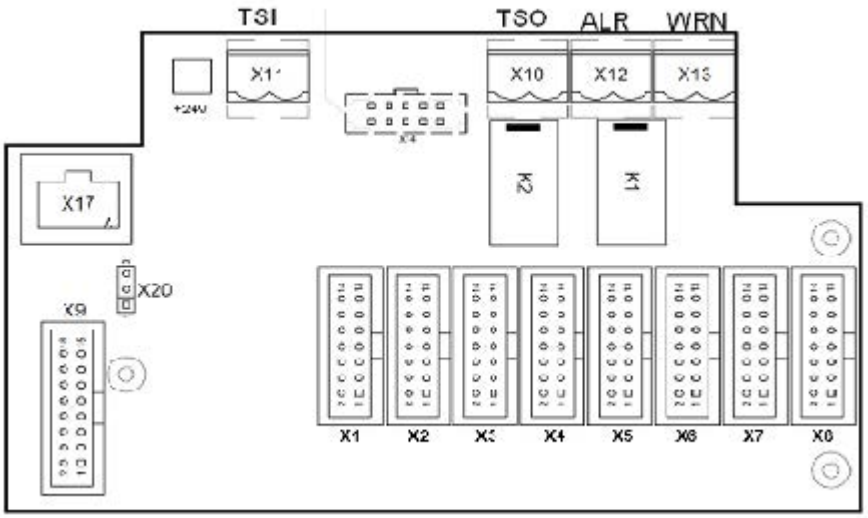

Figure 2: Front view 560BCU05 R0001

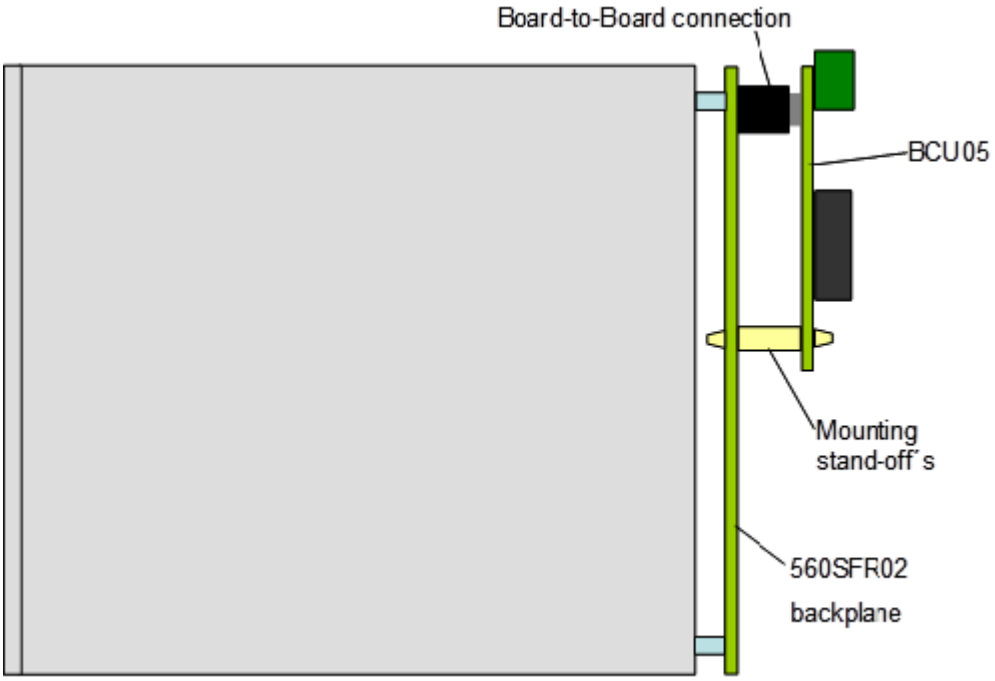

Figure 3: Assembly 560SFR02 and 560BCU05 R0001

Figure 4: Connector cable 560BCU05 R1002

Figure 5: Termination unit 560BCU05 R0003

Technical Data

In addition to the general technical data of the RTU560, the following applies:

Minute Pulse Input (TSI)	
X11	Plug-in terminal strip 2-pole, 24 VDC input, isolated

Minute Pulse Output (TSO)	
X10	Plug-in terminal strips 2-pole, 24 V DC output

Rack-to-Rack Interface	
X17	RJ45 connector 180°

Signal Outputs	
X12 (ALARM) X13 (WARNING)	Plug-in terminal strips 2-pole each
Relay contact	Active closed, WARNING is set also in case of ALARM. ≤ 1 A / ≤ 60 V DC / ≤ 30 W

Watchdog	
Supervision time	Ca. 30 seconds

Compliances	
EMC	EN55011, EN61000
Environmental	EN60255, IEC60870
Safety	EN61010

Voltage Supply	
Supply	5 V DC / approx. 80 mA 24 V DC / approx. 60 mA

Supply (external)	
+24V	Screw terminal connection only in case of 23ET24 subrack

Mechanics	
PCB	126 x 78 mm
Weight	Approx. 0.1 kg

Connection Type	
Connectors	2 - 8 sub-connectors with flat cable, 18-pole each

Environmental Conditions

Nominal operating temperature range	-25°C +70°C
Startup	-40°C
Storage temperature range	-40°C … +85°C
Relative Humidity (EN60068 2-30)	5 … 95 % (non condensing)

Ordering information	
560BCU05 R0001 Basic module and 2 connector cables	1KGT022400R0001
560BCU05 R1002 Additional connector cable, 10 pcs per package	1KGT022400R1002
560BCU05 R0003 Termination connector, 1 pc	1KGT022400R0003

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