

RTU513 Remote Terminal Unit DataSheet

Bus Connection Module 513BCM03

Application

The bus connection module 513BCM03 is designed to make the RTU513 System Bus Signals accessible to the outside. ALARM (ALR) and WARNING (WRN) are signaled to the outside with relay contacts. An external minute impulse may be connected via an optocoupler. The filtered internal minute impulse is outputted as 24 V impulse. The 513BCM03 may only be used in the SMS10. With this board two RTU513 communication boards SLI01 and/or ETH01 are usable within the SMS10.



Characteristic

The bus connection 513BCM03 may only be used in the SMS10. The board is mounted to the existing PBP-connectors X1/X2. These connectors are mirrored to the 513BCM03, where the connections are accessible. Connections to the RTU513 boards are made via sub connectors at slot address / board address 69/4 and 77/2. The sub connectors are supplied with the board. This gives the chance to use two RTU513 boards at these slots. Power comes from the RTU513 boards and a 24 V cable.

The signals ALARM and WARNING are distributed with relay contacts. On signaling ALARM the signal WARNING is activated also. ALARM and WARNING are supervised from a watchdog. They are activated if the RTU boards do not respond within 30 seconds. At the isolated minute impulse input TSI an external minute impulse may be connected to the RTU513 boards. This minute impulse is evaluated from the time master function. The internal filtered minute impulse is available at the minute impulse output TSO.

Operation

The 513BCM03 may only be mounted at slot 69/4 and 77/2. The module will plugged of the plug-in terminal strips in the communication subrack SMS10. The 513BCM03:

- Supervised the system activation
- Signals the ALARM and WARNING
- Signals the I/O synchronization

Mounting the Module

The module must be mounted of the existing PBP connectors X1 and X2 on the back plane of the communication subrack SMS10. The 513BCM03 have to be plugged to the Sub-D connector and will be fixed with attached screws and contact slides. Connections to the RTU513 Module is made by plug the attached ribbon cable with sub connectors in the processing connectors of the SMS10. The processing connectors are at Slot/module address 69/4 and 77/2 (see Fig. 2).

The EMV values are only valid when the front plate is screwed tightly. The 24 V connecting cable of the 513BCM03 have to be plugged of the 24 V connector on SMS10.

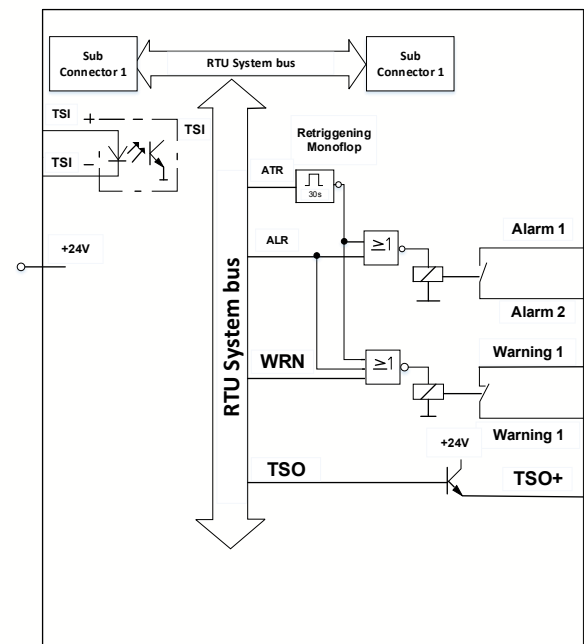


Fig. 1: Block diagram Bus connection module 513BCM03

Watchdog

The activity on the RTU513 bus is supervised by a re-triggering mono flop. ALARM and WARNING are activated if the RTU modules do not respond within about 30 seconds.

Alarm and Warning

ALARM and WARNING are activated by the watchdog or by a RTU513 communication unit. On signaling ALARM the signal WARNING is also activated.

Minute pulse input TSI

The RTU513 communication units can be synchronized by the TSI input. Connecting the minute pulse input TSI.

Minute pulse output TSO

The RTU513 communication units generate an internal filtered minute pulse TSO. With this signal the other modules will be synchronized. Connecting the minute pulse output TSO.

Setting

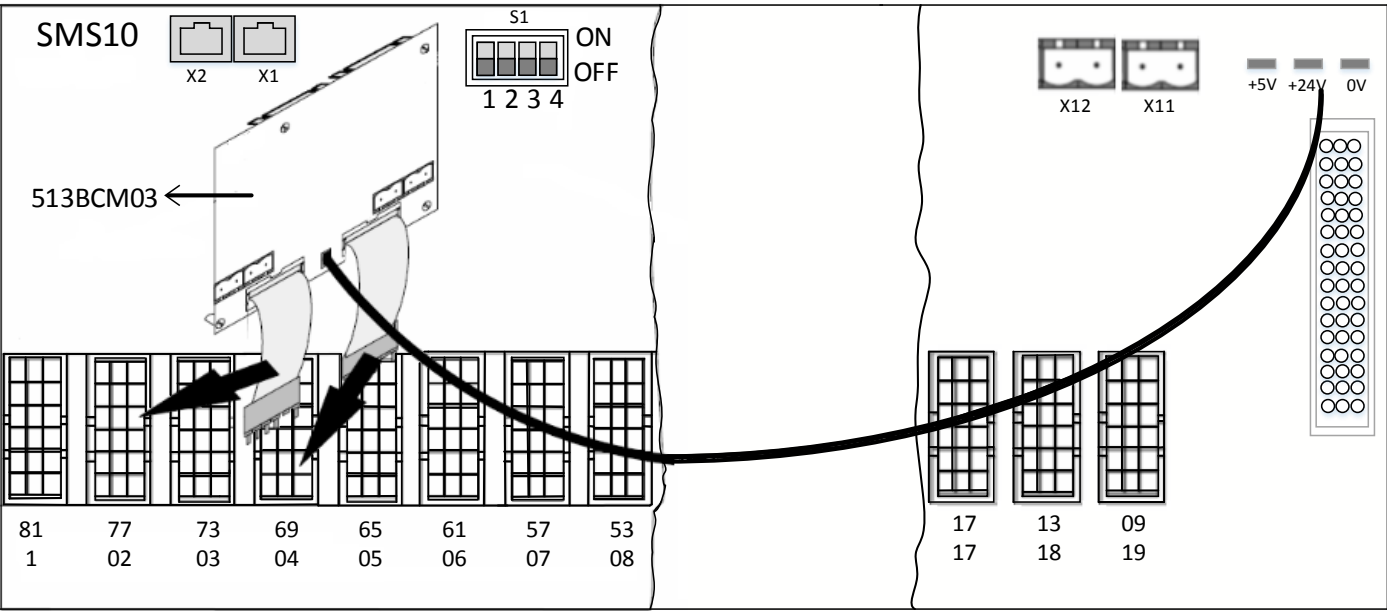


Fig.2: Mounting the 513BCM03 on back side the extension sub rack SMS10 sub-rack WMS10

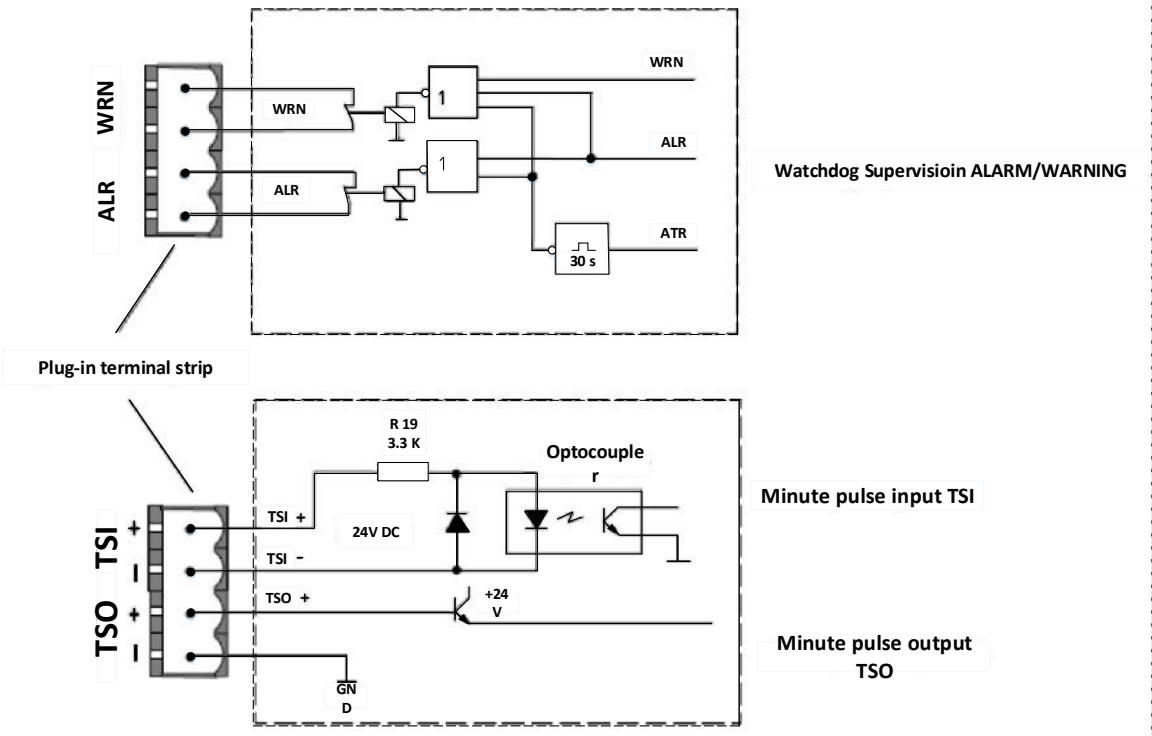


Fig. 3: Logic block diagram of internal plug-in terminal strip wiring

Setting

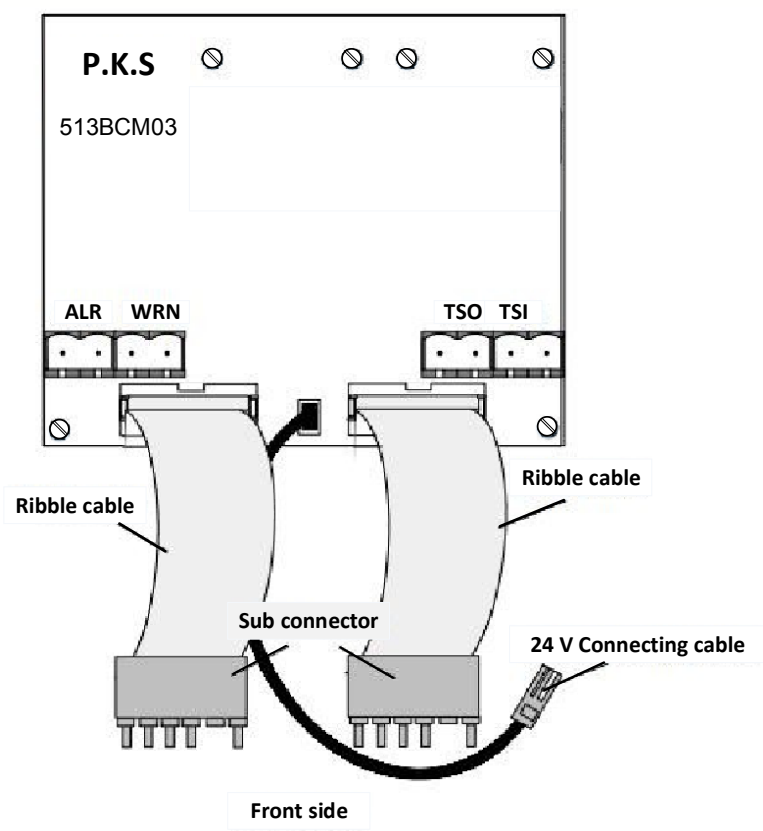


Fig.4: Front view the 513BCM03

Technical Data

In addition to the PKS RTU 513 general technical data, the following applies:

Environmental conditions

| | |
|-------------------|--------------------------------|
| Temperature | 0 ... 70 °C |
| Relative humidity | 5 ... 95 % (non condensing) |

Power Supply

| | |
|--------|---------------------------------------|
| Supply | 5 V / app. 80 mA 24 V / app. 60 mA |
|--------|---------------------------------------|

Mechanical Layout

| | |
|--------|-------------|
| PCB | 88 x 76 mm |
| Weight | App. 0.2 kg |

Connection types

| | |
|-----------|--|
| connector | 2 sub connectors on flat cable for 18 pole each |
|-----------|--|

Minute impulse input

| | |
|------------------------------|--|
| TSI: | plug-in terminal strip 2-pole isolated, 24 V input |
| Minute impulse output | |
| TSO: | plug-in terminal strip 2-pole 24 V output. |
| Signal outputs | |
| Alarm-/Warning: | plug-in terminal strip |
| Output: | 2-pole each |
| Relay contact: | active closed Warning set also with Alarm $\leq 1A / \leq 60 \text{ V DC} / \leq 30 \text{ W}$ |
| Watchdog | |
| Supervision time: | 30 sec. |