

BRODERSEN FIELDBUS: THE SECURE DATA ACQUISITION SYSTEM FOR INDUSTRIAL ENVIRONMENTS

The Brodersen Fieldbus concept is based on the industrial BITBUS™ standard from Intel. Many thousand signals can be handled from locations within the length of the serial fieldbus network, which can be more than 13 km.

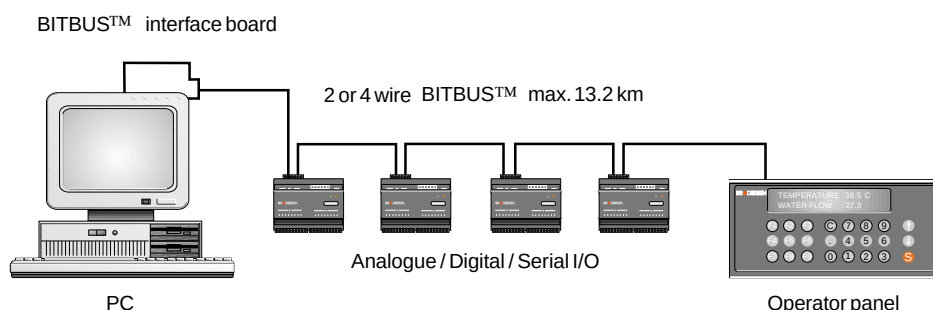
The System consists of a Master and up to 99 Slave stations for simple, fast and secure acquisition and distribution of signals.

A large number of different acquisition modules can be combined in numerous ways, making it possible to meet almost any application in the area of distributed I/O.

Fibre Optical repeaters are available for use in noisy environments or in environments where a high degree of electrical isolation is required.

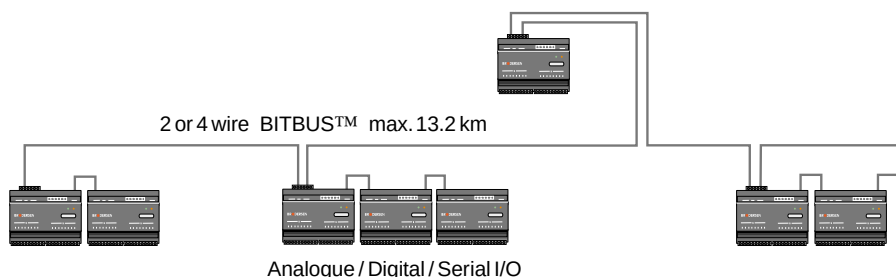
The fieldbus system can work in 3 different configurations:

WITH A PC AS THE MASTER.



With the PC as the master you get an open system. Process data on the factory floor can be collected, analysed and checked. Outputs and new setpoints can be entered from the central PC. The Slave I/O modules can even perform local control on the distributed locations.

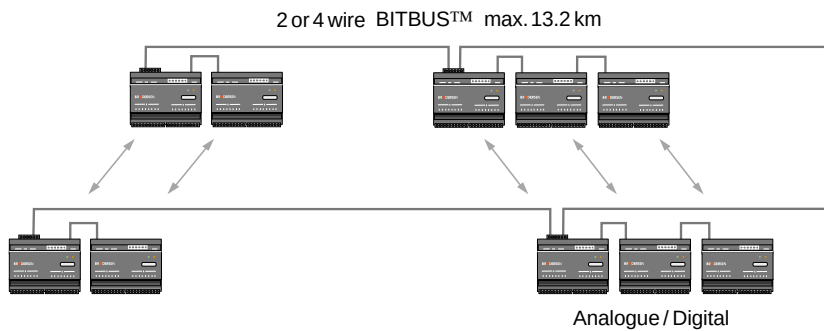
The Windows based Brodersen Software **IOTOOL32 PRO** includes all the necessary drivers and tools to collect and import the data into standard Windows programmes such as spreadsheets, data bases or SCADA packages (Supervision Control and Data Acquisition).



WITH A PROGRAMMABLE BRODERSEN MODULE AS MASTER.

The Remote Master module can handle up to 31 slave stations. It can transfer data between the different slaves, and perform logical control of an entire network of more than 13 km.

The Remote Master is programmed by the B-CONW IEC-1131-3 programming tool, which is a part of the software toolkit **IOTOOL32 Pro**.



WITH A SELF-CONFIGURING BRODERSEN MODULE AS MASTER.

The Cable Master module is fully self-configuring to perform point to point signal transfer with up to 32 locations.

The Cable Master requires no software and can handle several thousand signals, minimising the costs of cabling and installation.

COMPACT HARDWARE

All modules are supplied in compact aluminium enclosures which fit on a 35mm symmetrical DIN rail and comply with DIN standard 43880.

SAFE COMMUNICATION

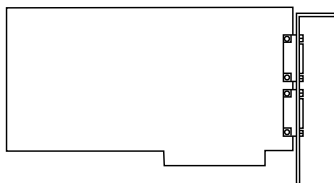
The well-proven BITBUS uses RS485 balanced signal lines and, together with the communication protocol's error checking and retransmission facility, ensures noise immune and safe means of communication.

USER FRIENDLY SOFTWARE

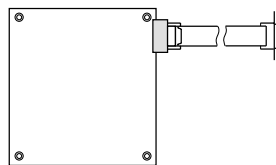
At the heart of the Brodersen Fieldbus is the software **IOTOOL32 PRO** which runs on any standard PC equipped with a Windows 95, 98 or NT operating system. The software is self-installing from a **single CD-ROM**. The Windows based software tool **IOTOOL32 PRO** includes all necessary software for configuring, programming and communication.

B-CONW is an **IEC1131-3** instruction list programming tool equipped with an editor, debugger and compiler for the **most complex of tasks in the programmable modules**.
B-CONW is included in the **IOTOOL32 PRO**.

Third-party software poses no problems. Everything from a simple spreadsheet to a SCADA package can be used with Brodersen Fieldbus systems via the **DDE and DLL** interfaces. **Specialised drivers** for popular SCADA packages such as **InTouch, Fix and Factory Link** are also available.



UCB-93



UCB-94/PC104

DESCRIPTION

The UCB-93 BITBUS board is a Master in a BITBUS network polling the connected BITBUS slave modules.

The board is a PC BITBUS™ interface board supplied with System 2000 optimizer and configured to be used for System 2000. UCB-93 has built-in power supply for galvanic isolation of the BITBUS™.

VERSION/ORDERING CODE

Type: UCB-93

TECHNICAL DATA

CPU:
Processor: Intel 8044/12MHz.

Communication:
Speed: 62.5kBPS or 375kBPS.

PC type: IBM compatible PC/XT/AT.

PC I/O address: 0308 to 030F hex.

Board identifier: -

PC interface: 512 byte FIFO.

On board RAM: 8Kbyte.

EPROM: 32Kbyte (System 2000 optimizer).

Isolation: BITBUS™ to PC electronics: 500V
Built-in DC/DC converter.

Dimensions: H 97 mm x L 230 mm.

Connector: 9-pole sub-D (female).

Temperature range: 0-55°C.

Current consumption: Max. 800mA at 5V DC.

DESCRIPTION

The BITBUS PC104 board is a Master in a BITBUS network polling the connected BITBUS slave modules.

The Board is hardware compatible with the Intel standard. Without any change of software drivers the PC104 board can run in a PC/104 embedded system.

The interface to the PC is a 8-bit I/O bus. The address space is 8 bit wide selectable in the range from 200H to 3F8H. To obtain a high data transfer rate, a 512 byte FIFO interface between the CPU on the board and the PC is used.

VERSION/ORDERING CODE

Type: UCB-94/PC104

TECHNICAL DATA

CPU:
Processor: Intel 80C152/12MHz.

Communication:
Speed: 62.5kBPS or 375kBPS.

PC type: PC/104.

PC I/O address: 200H to 3F8H.

PC interface: 512 byte FIFO.

On board RAM: 32Kbyte SRAM.

Serial EEPROM: 128x8 to 8Kx8 byte (Option, normally not supplied).

Isolation: BITBUS™ to PC electronics: 1000V.

Dimensions: WxDxH: 96x90x15, PC104 standard.

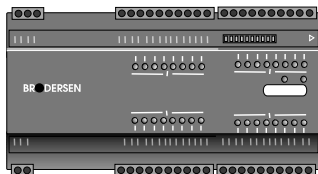
Connector: 10 pole flat cable connector (male).

Temperature range: 0-50° C.

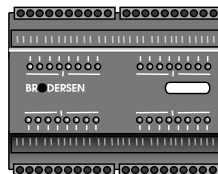
Current consumption: Approx. 180mA at 5V from PC104.

Master Modules

Cable Master UCB-16DI.D1/CM • UCB-32DI.D1/CM • UCB-8DIO.P1/CM • UCB-16DIO/CMxx.P1



UCB-16DI.D1/CM UCB-32DI.D1/CM



UCB-8DIO.P1/CM UCB-16DIO/CMxx.P1

DESCRIPTION

The cable master module is used together with a number of slave and expansion modules to form a stand-alone BITBUS™ system. The cable master module transfers digital, analogue and data signals by forming a number of point to point transfer channels at one common 2 (or 4) wire BITBUS™ cable. Activation of a input at one island (island n) will result in activation of the corresponding output at the counterpart (island n+1), and vice versa.

VERSION/ORDERING CODES

Type: UCB-16DI.D1/CM
UCB-32DI.D1/CM

TECHNICAL DATA

Digital input:
...16DI: 16 inputs.
...32DI: 32 inputs.

Digital output: -

Capacity: Max. 16 transfer channels, 1 master + 31 slaves.
Max. 256 digital signals or max. 48 analogue signals per channel.

Scan time:
375kBPS: Approx. 10ms per island/slave.
62.5kBPS: Approx. 25ms per island.

Delay:
375kBPS:
2 islands: Typical 40ms.
n islands: Typical n x 25ms.
62.5kBPS:
2 islands: Typical 50ms.
n islands: Typical n x 50ms.

Further data: See UCB-16DI.D1, UCB-32DI.D1 in the BITBUS™ Slave modules section.

Current consumption:
...16DI: 135mA.
...32DI: 150mA.

DESCRIPTION

The cable master module is used together with a number of slave and expansion modules to form a stand-alone BITBUS™ system. The cable master module transfers digital, analogue and data signals by forming a number of point to point transfer channels at one common 2 (or 4) wire BITBUS™ cable. Activation of a input at one island (island n) will result in activation of the corresponding output at the counterpart (island n+1), and vice versa.

VERSION/ORDERING CODES

Type: UCB-8DIO.D1/CM
UCB-16DIO/CMxx.P1

xx:
00 No built-in PS.
10: Built-in PS 110-240V AC/DC.
30: Built-in PS 24-48V DC.

TECHNICAL DATA

Digital input:
...8DI: 8 inputs.
...16DI: 16 inputs.

Digital output:
...8DO: 8 outputs.
...16DO: 16 outputs.

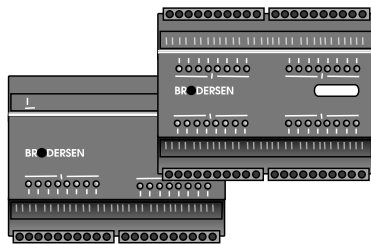
Capacity: Max. 16 transfer channels, 1 master + 31 slaves.
Max. 256 digital signals or max. 48 analogue signals per channel.

Scan time: 375kBPS: Approx. 10ms per island/slave
62.5kBPS: Approx. 25ms per island.

Delay:
375kBPS:
2 islands: Typical 40ms.
n islands: Typical n x 25ms.
62.5kBPS:
2 islands: Typical 50ms.
n islands: Typical n x 50ms.

Further data: See UCB-8DIO.D1, UCB-16DIO.P1 in the Slave Modules section.

Current consumption:
...8...: 160mA.
...16...: 175mA.



UCB-16DI.D1/UCB-32DI.D1

DESCRIPTION

BITBUST™ slave module with 16/32 24V inputs.
The module includes programmability and can be programmed to perform local control by use of e.g. B-CONW.

VERSION/ORDERING CODES

Type: UCB-16DI.D1
UCB-32DI.D1
UCB-32DI.D2

TECHNICAL DATA

Digital input:

UCB-16...: 16 (positive or negative common).
UCB-32...: 32 (negative common only)
All equipped with optocouplers.

D1:

Activated: 10-30V DC.
Deactivated: Max. 3V DC.
12V DC: Typical 3mA.
24V DC: Typical 6mA.
Delay: Typical 5ms.

D2:

Activated: 30-60V DC.
Deactivated: Max. 6V DC.
48V DC: 4mA.
Delay: Typical 5ms.

Pulse/pause width: -

Isolation: 2kV AC (input to electronics).

Indicators: One for each input (red).

Current consumption:

UCB-16...: Max. 135mA.
UCB-32...: Max. 150mA.

Program

memory: 7 Kbytes.

Memory usage per instruction:

6-24 bytes.

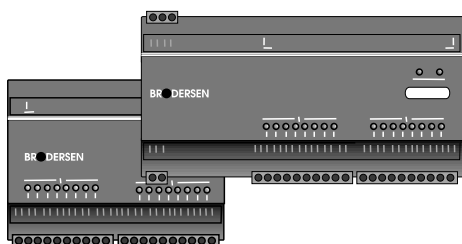
Typical maximum program size:

500 instruction lines.

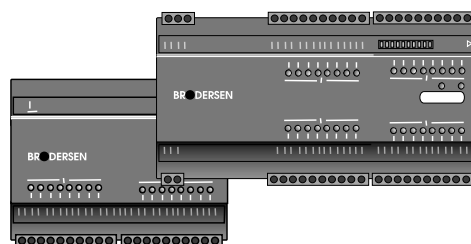
Local scan time: 1-250 msec.

Slave Modules

Digital I/O Modules UCB-8DIO/xx.P1 • UCB-16DIO/xx.P1



UCB-8DIO/00.P1 / UCB-8DIO/10.P1



UCB-16DIO/00.P1 / UCB-16DIO/10.P1

DESCRIPTION

BITBUS™ slave module with 8 24V digital inputs and 8 PNP open collector outputs.

The module includes programmability and can be programmed to perform local control by use of e.g. B-CONW.

VERSION/ORDERING CODES

Type: UCB-8DIO/xx.P1

xx:
00: No built-in power supply.
10: Built-in power supply 110-240V AC/DC.
30: Built-in power supply 24-48V DC.

TECHNICAL DATA

Digital input: 8 (positive or negative common).
All equipped with optocouplers.
10-30V DC activated.
Max. 3V DC deactivated.
12V DC: Typical 3mA.
24V DC: Typical 6mA.
Delay: Typical 5ms.

Digital output: 8 PNP open collector.
All equipped with optocouplers.
10-30V DC.
Voltage drop: Max. 1.5V (output activated).
Current: Max. 0.5A.
Peak current: Max. 5A in 1 second.
Leakage current (off): Max. 0.5mA.
Delay: Max. 1ms.

Isolation: 2kV AC (input or output, input to output).

Indicators: One for each input (red).
One for each output (yellow).

Current consumption: Max. 160mA.

Program memory: 7 Kbytes.

Memory usage per instruction: 6-24 bytes.

Typical maximum program size: 500 instruction lines.

Local scantime: 1-250 msec.

DESCRIPTION

BITBUS™ slave module with 16 24V digital inputs and 16 PNP open collector outputs.

The module includes programmability and can be programmed to perform local control by use of e.g. B-CONW.

VERSION/ORDERING CODES

Type: UCB-16DIO/xx.P1

xx:
00: No built-in power supply.
10: Built-in power supply 110-240V AC/DC.
30: Built-in power supply 24-48V DC.

TECHNICAL DATA

Digital input: 16 (negative common).
All equipped with optocouplers.
10-30V DC activated.
Max. 3V DC deactivated.
12V DC: Typical 6mA.
24V DC: Typical 6mA.
Delay: Typical 5ms.

Digital output: 16 PNP open collector.
All equipped with optocouplers.
10-30V DC.
Voltage drop: Max. 1.5V (output activated).
Current: Max. 0.5A.
Peak current: Max. 5A in 1 second.
Leakage current (off): Max. 0.5mA.
Delay: Max. 1ms.

Isolation: 2kV AC (input or output, input to output).

Indicators: One for each input (red).
One for each output (yellow).

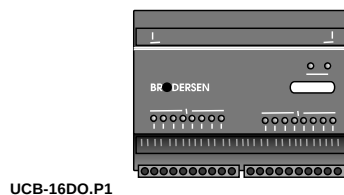
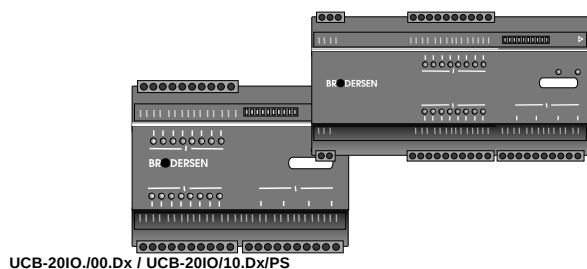
Current consumption: Max. 175mA.

Program memory: 7 Kbytes.

Memory usage per instruction: 6-24 bytes.

Typical maximum program size: 500 instruction lines.

Local scantime: 1-250 msec.



DESCRIPTION

BITBUS™ slave module with 8 24V digital inputs, 8 digital PNP outputs and 4 analogue inputs.

The analogue inputs have galvanic isolation between the individual channels. As relays are used for multiplexing the analogue inputs, this module is best suited for applications not requiring fast analogue sampling.

The UCB-20 IO delivered as slave module comes in 2 versions. With or without programmability for local control, normal expansion modules can be attached as required to enlarge the number of I/O.

VERSION/ORDERING CODES

Type: UCB-20IO/xx.Dx
UCB-20IO/BSxx.Dx with programmability.

xx:
00: No built-in PS.
10: Built-in PS 110-240V AC/DC.
30: Built-in PS 24-48V DC.

Dx:
D1: 0-10V DC/0-20mA.
D2: 4-20mA.
D3: 0-5V DC.
D6: 0-20mA.

TECHNICAL DATA

Digital input: 8 (negative common)
10-30V DC activated.
Max. 3V DC deactivated.
12V DC: Typical 3mA.
24V DC: Typical 6mA.
Delay: Typical 1ms.

Digital output: 8 PNP open collector.
All equipped with optocouplers.
External voltage: 10-30V DC.
Voltage drop: Max. 1.5V (output activated).
Output current: Max. 0.5A.
Peak current: Max. 5A in 1 second.
Leakage current (off): Max. 0.5mA
Output delay: Max. 1ms

Analogue input: 4 relays multiplexed analogue channels.
Differential (+/-), flying capacitor type
12 bit resolution.
Sampling rate: 1-255 sec. (default 5 sec.).

Accuracy: Better than 0.2% (25°C)/0.3% (-10-55°C).
Impedance:

Voltage: D1: 100 kOhm, D3: 50 kOhm.
Current: D1: 500 Ohm, D2/D6: 100 Ohm.

Lifetime multiplexer: Min. 50 mio. samples (8 years at 5 sec. sampling interval).

Isolation:
Analogue: 500V (input to input).
Digital: 2 kV (input or output, input to output).

Indicators: One for each digital input (red).
One for each digital output (yellow).

Current consumption: Max. 175mA.

Program memory: /BS only 7 Kbytes.

Memory usage per instruction: 6-24 bytes.

Typical maximum program size: 500 instruction lines.

Local scantime: 1-250 msec.

DESCRIPTION

BITBUS™ slave module with 16 PNP open collector outputs.

VERSION/ORDERING CODES

Type: UCB-16DO.P1.

TECHNICAL DATA

Digital output:
...P1: 16 PNP open collector.
All equipped with optocouplers.
External voltage: 10-30V DC.
Voltage drop: Max. 1.5V (output activated).
Current: Max. 0.5A.

Peak current: Max. 5A in 1 second.
Leakage current (off): Max. 0.5mA.
Output delay: Max. 1ms.

Isolation: 2kV AC (electronics to output).

Indicators: One for each output (yellow).

Current consumption: Max. 160mA.

Program memory: 7 Kbytes.

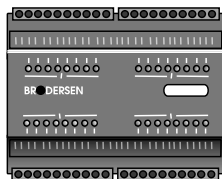
Memory usage per instruction: 6-24 bytes.

Typical maximum program size: 500 instruction lines.

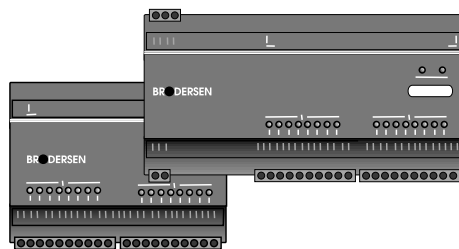
Local scantime: 1-250 msec.

Slave Modules

Digital I/O Modules UCB-32DO.P1 • UCB-16CI/xx.D1



UCB-32DO.P1



UCB-16CI/xx.D1 / UCB-16CI/10.D1

DESCRIPTION

BITBUS™ slave module with 32 PNP open collector outputs.

VERSION/ORDERING CODES

Type: UCB-32DO.P1

TECHNICAL DATA

Digital output: 32 PNP open collector.
All equipped with optocouplers.
External voltage: 10-30V DC.
Voltage drop: Max. 1.5V (output activated).
Current: Max. 0.5A.
Peak current: Max. 5A in 1 second.
Leakage current (off): Max. 0.5mA.
Output delay: Max. 1ms.

Isolation: 2kV AC (electronics to output).

Indicators: One for each output (yellow).

Current consumption: Max. 160mA.

Program memory: 7 Kbytes.

Memory usage per instruction: 6-24 bytes.

Typical maximum program size: 500 instruction lines.

Local scantime: 1-250 msec.

DESCRIPTION

BITBUS™ slave module with 16 32-bit counters.
The module includes battery back-up for the counter values.
For each counter a software RESET function is provided.
If less than 16 counters are required the unused inputs could be used as ordinary digital inputs.
Expansion modules may be connected if required.

VERSION/ORDERING CODES

Type: UCB-16CI/xx.D1

xx: No built-in PS.
00: Built-in PS 110-240V AC/DC.
10: Built-in PS 24-48V DC.
30: Built-in PS 24-48V DC.

TECHNICAL DATA

Digital input: 16 (positive or negative common).
All equipped with optocouplers.
Activated: 10-30V DC.
Deactivated: Max. 3V DC.
12V DC: Typical 3mA.
24V DC: Typical 6mA.
Delay: Typical 2ms.

Pulse/pause width: Min. 10ms + 1ms per expansion module.

Counting frequency: Up to 50Hz.

Back-up: Min. 10 years.

Isolation: 2kV AC (input to electronics).

Indicators: One for each input (red).

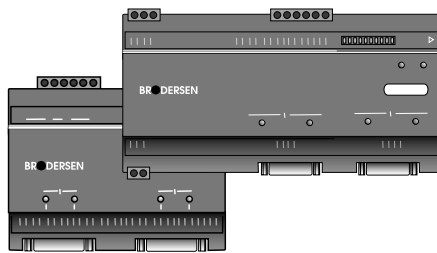
Current consumption: UCB-16...: Max. 135mA.

Program memory: 7 Kbytes.

Memory usage per instruction: 6-24 bytes.

Typical maximum program size: 500 instruction lines.

Local scantime: 1-250 msec.



UCB-61SD

DESCRIPTION

BITBUS™ module with one RS232 or one RS422/ RS485 port for serial data communication.

The UCB-61 module can be used in two fundamentally different ways:

As a local gateway converting process values from e.g. a PLC into the normal BITBUS™ protocol used for System 2000. This requires that the UCB-61 is equipped with a driver software fitting the actual PLC or other equipment connected to the serial port.

As a transparent gateway transferring data directly from the PC, the BITBUS™ master, to the equipment connected to the serial port or from one UCB-61 to another. This could be for instance programme down-load to a PLC or print-out of information on a printer.

Normal expansion modules with digital or analogue input or output can be connected independent of the serial ports.

The gateway modules are also available with built-in mains supply in a 162mm housing.

VERSION/ORDERING CODES

Type: UCB-61SDxx/yy

xx:
00: No built-in PS.
10: Built-in PS 110-240V AC/DC.
30: Built-in PS 24-48V DC.

yy:
--: Version with no EPROM.
AB: Allen Bradley PLC.
C: SATT COMLI.
IB: IDEC.
GC: Cegelec GEM80.
K: Koyo.
L1: SIEMENS SINEC L1.
MO: MODICON PLC (master).
MOS: MODICON PLC (slave).
S: SIEMENS SIMATIC S5.
SU: Klöckner-Moeller Suconet.
T: Transparent.
TE: Telemecanique.

TECHNICAL DATA

Serial Data:

Signal levels: RS232, RS422, RS485.
Communication format: 5, 6, 7 or 8 bit.
Parity: Odd, even or none.
Stop bit: 1 or 2.
Baud rate: 300, 600, 1200, 2400, 4800, 9600 or 19200Baud.

Internal memory:

Data buffer (RAM): Max. 32kByte.
Configuration or prg. (EEPROM): 8kByte.
Programme (EPROM): Max. 44kByte.

Indicators:

System (connection to master): Green.
I/O (expansion modules): Green.
Rxd, A or B (incoming data): Red.
Txd, A or B (outgoing data): Yellow.

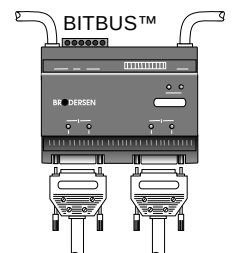
Aux. relay contact: SPST-NO, Max. 30V AC/DC, 0.5A.

Current consumption: RS232: Max. 175mA.
RS422/RS485: Max. 205mA.

WIRING DIAGRAMS

Standard Module:

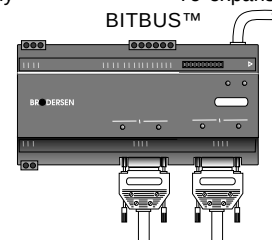
To power supply module To expansion module



RS232 or RS422/485

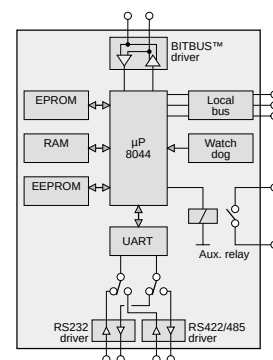
Module with Built-in Power Supply:

Mains supply To expansion module



RS232 or RS422/485

Circuit Configuration



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UCT-42

DESCRIPTION

Message display/operator panel for front panel mounting with up to 190 prestored messages. Each message contain 2 lines of text with up to 20 characters per line. Process values, counter values, etc. with up to 16 digits can be placed in the text field.

VERSION/ORDERING CODES

Type:

UCT-42.924:	4 keys, 12-48V AC/DC.
UCT-42P.924:	4 keys, 12-48V AC/DC, printer output.
UCT-42.230:	4 keys, 230V AC.
UCT-42P.230:	4 keys, 230V AC, printer output.
UCT-44.924:	24 keys, 12-48V AC/DC.
UCT-44P.924:	24 keys, 12-48V AC/DC, printer output.
UCT-44.230:	24 keys, 230V AC.
UCT-44P.230:	24 keys, 230V AC, printer output.

Options:

Please specify UCT-xxPxxx/R to order version with built-in real time clock.

TECHNICAL DATA

Display:	VFD display, 2 x 20 characters, 5 x 7 dot matrix Readable at a distance up to 3 m. Character height: 5 mm. Intensity: Programmable, 4 levels.
BITBUS™ interface:	RS485 optoisolated, Data and RTS (Standard System 2000).
Clock:	Optional built-in real-time clock & calendar with battery back-up.
Supply voltage:	12-48V AC/DC (10.5-58V). 110-240V AC (90-265V).
Mains frequency:	40-60Hz.
Power consumption:	Approx. 10W.
Connectors:	Plug-in screw terminals.
Ambient temperature:	-20-50°C.
Protection:	
Front:	IP54.
Rear:	IP20.

EMC:

EN50081-1, EN50082-2.

Isolation:

Mains: IEC class II, 4kV AC
SAFETY EARTH REQUIRED
BITBUS™ input to electronics: 2kV AC.

Dimensions:

Front:	
UCT-42:	192 x 48 mm according to DIN43700.
UCT-44:	192 x 96 mm according to DIN43700.
Depth:	96 mm + connectors (10 mm) + front (9 mm).
Cut out:	186 x 45 mm.
Weight:	Approx. 600 g.

Text Displays

Operator Terminal UCT-61



UCT-61

DESCRIPTION

UCT-61 is ideal as general data entry stations, and provides time and attendance and access control systems. The compact and advanced designed terminals fit nicely into all types of environments, from office to industry.

VERSION/ORDERING CODES

Type: UCT-61 B, Barcode reader, slide.
UCT-61 BP, Barcode reader, pen.
UCT-61 M, Magnetic card reader.

TECHNICAL DATA

Display: Alphanumeric LCD supertwist display
2 lines x 24 characters.
Fonts: 5 x 8 dots.
View area: 94.5 x 17.8 mm.
Character size: 5 x 7 dots, 3.2 x 4.85 mm.

Controller: Intel 8044 microprocessor, 12 MHz with
BITBUS™ Co-processor Intel 8751.
32 KB EPROM firmware, 32 KB CMOS.
RAM with battery back-up.

Clock: Real-time clock & calendar with battery
backup.

BITBUS™ interface: RS485 multidrop network
Baud-rates: 375 kbps or 62.5 kbps.

Barcode: Integrated barcode slide- or pen-reader.
Automatic recognition of Industrial 2 of 5,
Interleaved 2 of 5, UPC/EAN, code 39 and
Codabar.

Magnetic card reader: Integrated slide reader.
ISO 3554 track 2, ABA format.

Supply voltage:
220V AC: 5watt.
24V DC: 200-400mA.

Safety: According to EN 60950.

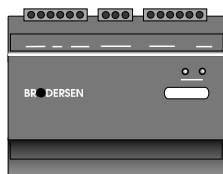
**Ambient
temperature:** 5-40°C.

Protection: IP40 according to IEC 529.

EMC: EN 50081-1, EN 50082-1.

Housing: Extruded aluminium.

Dimensions: Front panel exclusive wall/table console:
188 x 107.2 x 42.4 mm.
With magnetic card reader: 214 x 107.2 x
142.4 mm.
With bar code reader: 199 x 107.2 x
42.4 mm.



UCB-71

DESCRIPTION

The UCB-71 is an BITBUS™ a repeater module with built-in optical isolation.

The module is used:

To regenerate the BITBUS™ signals to be able to operate on distances more than 1200 m at 62.5kBPS or more than 300 m at 375kBPS.

To regenerate the BITBUS™ signals to be able to operate more than 27 slave modules in a system.

To secure that transients or hazardous voltages are not propagating from one area to another.

To isolate slave modules placed in areas with different ground potential.

Versions available for direct mains supply or DC-supply. UCS-59 or UCS-58 might be used to obtain battery back-up.

VERSION/ORDERING CODES

Type: UCB-71.924, 12/24V DC.
UCB-71.110, 110/120V AC.
UCB-71.220, 220/230V AC.
UCB-71.240, 230/240V AC.

TECHNICAL DATA

Supply voltage:
DC versions: 12/24V DC (10.5-30V).

Mains voltage:
AC versions: 110/120V AC (100-130V).
220/230V AC (200-245V).
230/240V AC (215-265V).

Mains frequency: 40-60Hz.

Power consumption: 6watt.

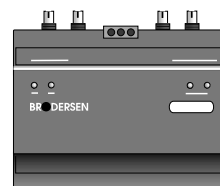
Number of repeaters:
62.5 kBPS: Max. 10.
375 kBPS: Max. 2
(max. 27 slave modules per repeater).

Indicators:
Power (section M & S): Green

< M (Data passing towards the master): Green

> S (Data passing from the master towards the slaves): Green

Isolation:
AC versions:
Primary to secondary: IEC class II, 4kV.
Section M to S: 2.5kV AC.
DC versions:
Supply input to electronics: 500V AC.
Section M to S: 1kV AC.



UCB-72

DESCRIPTION

The UCB-72 is a repeater and RS485 interface module for optical glass fibres. To obtain maximum security against cable or power failures, the module is utilizing a dual optical fibre system with return. An automatic monitor/selector circuit secures that if a failure occurs in one direction, the communication is automatically transferred to the opposite direction without interrupting the system.

The optical fibre system is recommended for installations with extreme electrical fields or hazardous atmosphere e.g. railway installations or chemical plants.

VERSION/ORDERING CODES

Type: UCB-72.115, 110/120V AC.
UCB-72.230, 220/230V AC.

TECHNICAL DATA

Mains voltage: 110/120V AC (100-130V).
AC versions 220/240V AC (200-265V).

Mains frequency: 40-60Hz.

Power consumption: 6VA.

Fibre optics: Connectors: ST-type (4 pcs.).
Optical cable length between repeaters: Max.3 km.

Total length: 10 km.

Number of repeaters:
62.5 kBPS: Max. 10.
375 kBPS: Max. 2
(max. 27 slave modules per repeater).

Indicators:
4 green: "A" Optical ring A (receiver).
"B" Optical ring B (receiver).
System: BITBUS™ communication.
Power: Mains supply.

Isolation: IEC class II, 4kV AC.