


- Graphic display 128x64 blue/white
- IrDA serial infrared transceiver
- Real Time Clock on board
- 2x Serial RS232 Interfaces (1 DSUB/ 1 RJ45)
- Opt. 2x Serial RS485 Interfaces (1 DSUB/ 1 RJ45)
- Open source system


Pinout

Attributes




Signal LED:	Red	Customised
	Yellow	Customised
	Green	Customised

Power supply *)see notes



COM2 (SUB-D)	
PIN	
1	n.c.
2	RS232RX1
3	RS232TX1
4	n.c.
5	GND
6	n.c.
7	n.c. (optional RS485)
8	n.c. (optional RS485)
9	BOOTRS232
COM1 (RJ45)	
1	RS232RX0
2	RS232TX0
3	n.c.
4	n.c.
5	GND
6	n.c.
7	n.c. (optional RS485)
8	n.c. (optional RS485)



- **Display:** Graphic display
..... 128x64 pixel blue / white LED backlight
..... Type: WGMS-12864C
- **Control of the backlight:** bright(100%) / dark(30%)
- **Memory-Card:** MMC multi media card option
..... Yamaichi SD-card socket
- **CPU:** Hitachi-Processor
..... H8 HD64F2134FA20
- **Clock:** 18,342MHz
- **Keypad:** Flex panel
..... option: Capacitive key panel for EX-housing
- **Interfaces:** Two serial
..... RS232 / RS485 (1 DSUB/ 1 RJ45)
- **IrDA:** One serial infrared transceiver:
..... Vishay TFDU4100-TT3
- **RTC:** I²C real time clock
..... (low power / 56 byte internal RAM)
- **Memory:**
CPU: 128kByte Flash / 4kByte RAM
EEPROM: 32kByte
- **Battery:** Lithium 3V

Electrical Data

Power supply external.....	+24V DC ± 10%
Operating current.....	60mA at +24V=
Power supply protection.....	30V overvoltage, surge *) see notes

@D071-RS232-RTC

System Information

System IDCustomised

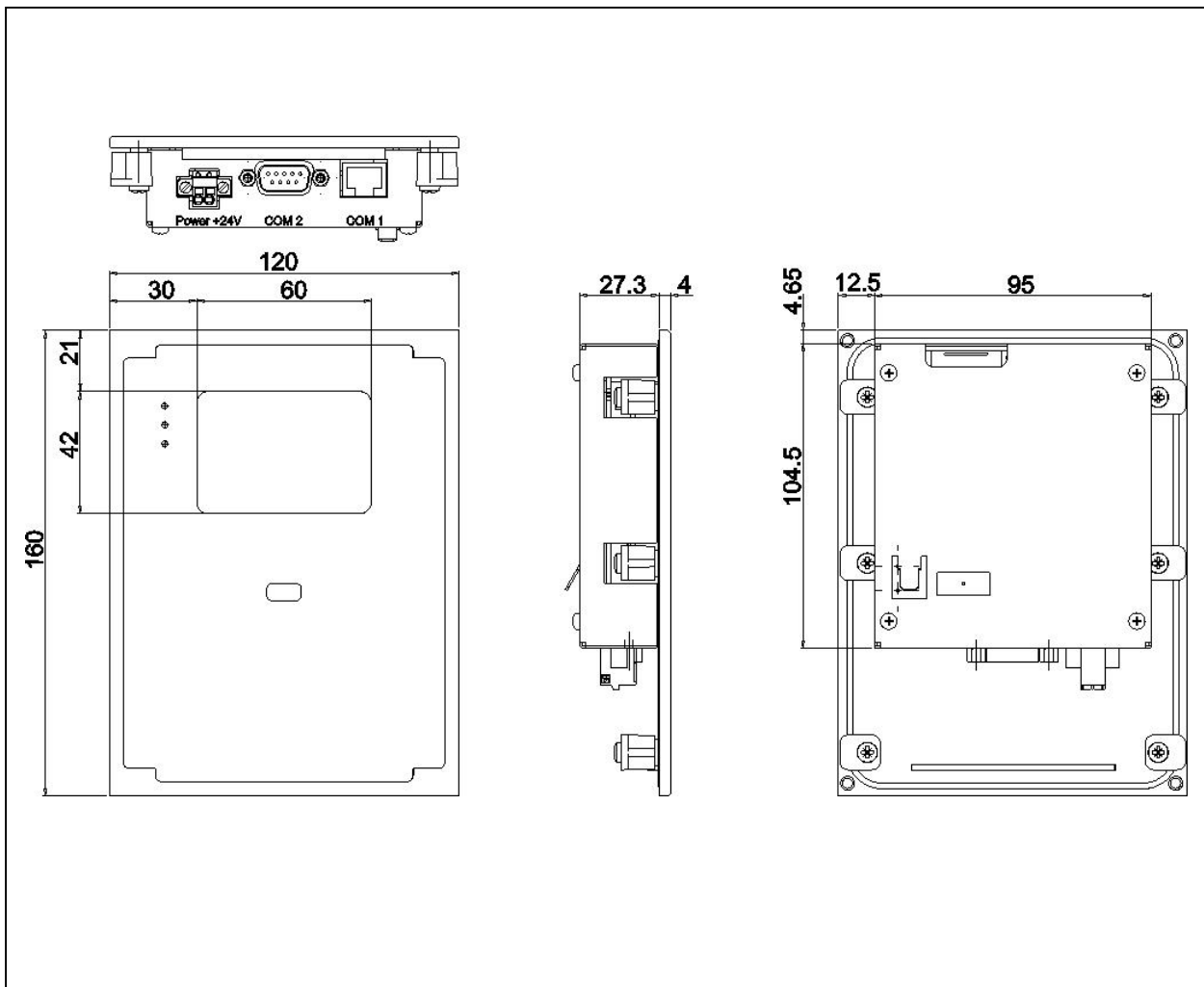
Environmental Conditions

Electromagnetic compatibility (EMC)EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)
Operating temperature [°C]0 to +50
Storage temperature [°C]-10 to +60
Humidity (rel)98 % (non condensing)
Protection class*IP 65 (DIN 40 050)
*The protection class is only valid if mounted in housing

Mechanical Data PCB

WeightApprox. 0.4 kg
Dimension160mm x 120mm x 35mm

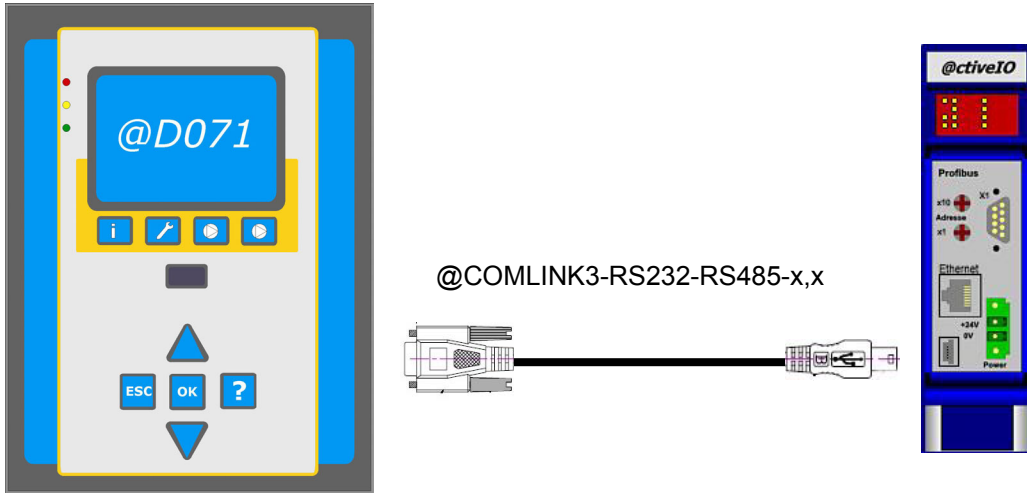
Drawing



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Example of Application:



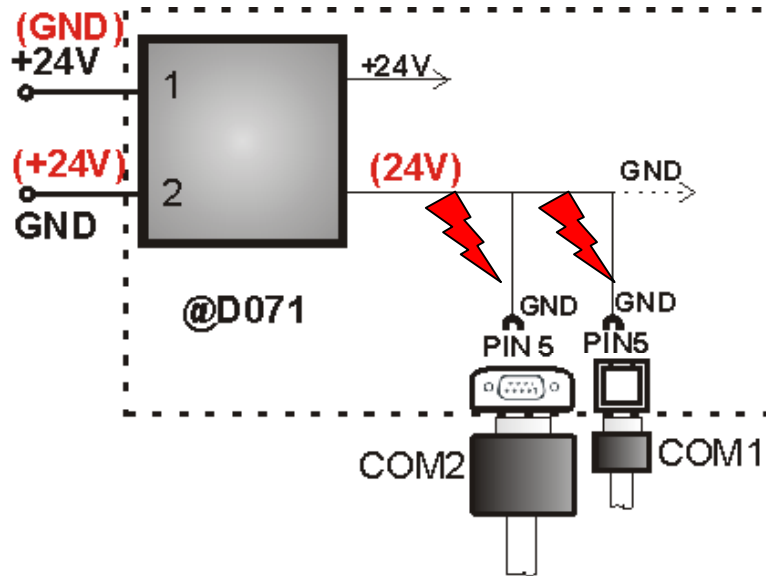
@D070-RS232-RTC@PLC-C20x-xx

Possible application for the monitoring and guidance of the control unit.

notes:

Attention

The @D071 is equipped with a protection against reverse polarity per default. This protection cannot be guaranteed any more, if the plugs are connected at the COM interfaces, because there will be a short circuit to the GND at the attached devices.



@D071-RS232-RTC

notes:

Downloading the firmware:

In order to download the firmware you will need, e.g.: the “Hitachi FLASH Development Toolkit Version 1.5” and a serial “COMLINK Cable”. This means that in “Boot” mode, the processor Mode Pins (MD0 & MD1) are switched to GND and the processor thus switches to internal “Boot” mode, which allows a release of the firmware to be downloaded.

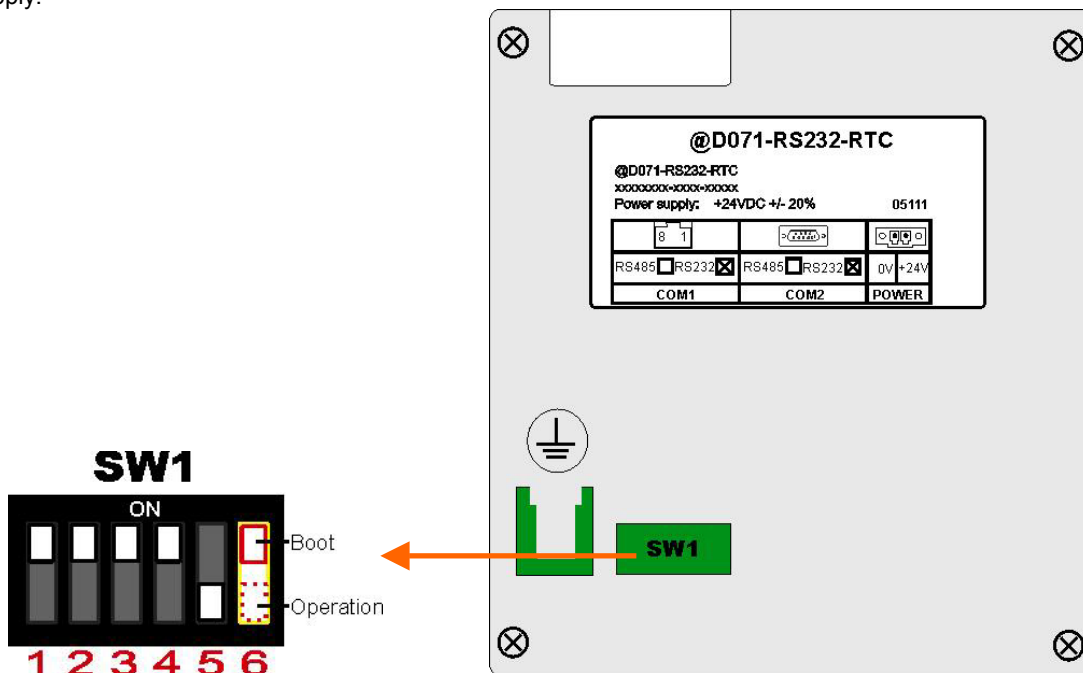
There are 2 different variants to set the device into the “Boot” mode.

Variant1

To set the processor to “Boot” mode connect –12VDC to **PIN9** of COM2 and switch on the power supply.

Variant2(optional)

To set the processor in “Boot” mode, operate the switch **SW1:6** (Position => **ON**) and switch on the power supply.



Procedure:

- > Set the control terminal with the variant 1 or 2 to “Boot” mode.
- > With no power at the control terminal, connect the PC and the control terminal.
- > Connect the power supply to the control terminal.
- > Start the “Hitachi FLASH Development Toolkit” program at the PC and select the appropriate version of the firmware.
- > Download the firmware.
- > Remove the power supply from the control terminal.
- > Switching the control terminal to the “Operational” mode.
- > Reconnect the power supply to the control terminal. The new firmware is now operational.

Revision change

Version	Description	Date (m/y)
00	Serie 0	06/05

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