

TR-Systemtechnik GmbH, Eglisshalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de



- 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

Signal LED:	Red	Customised
	Yellow	Customised
	Green	Customised

COM1 (RJ45)	COM2 (SUB-D)	Power supply +24V=
----------------	-----------------	-----------------------

Attributes

- Display Graphic display 128x64 pixel blue / white LED backlight, Type: WGMS-12864C
- Memory-Card MMC multi media card option Yamaichi SD-card socket
- CPU Hitachi-Processor H8S HD64F2132 FA20
- 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 μ C real time clock (low power / 56 byte internal RAM)
- Battery Lithium 3V

Electrical Data

Power supply external	+24V DC \pm 10%
Operating current.....	60mA at +24V=
Power supply protection	30V overvoltage, surge

@D070-RS232-RTC

System Information

System ID..... Customised

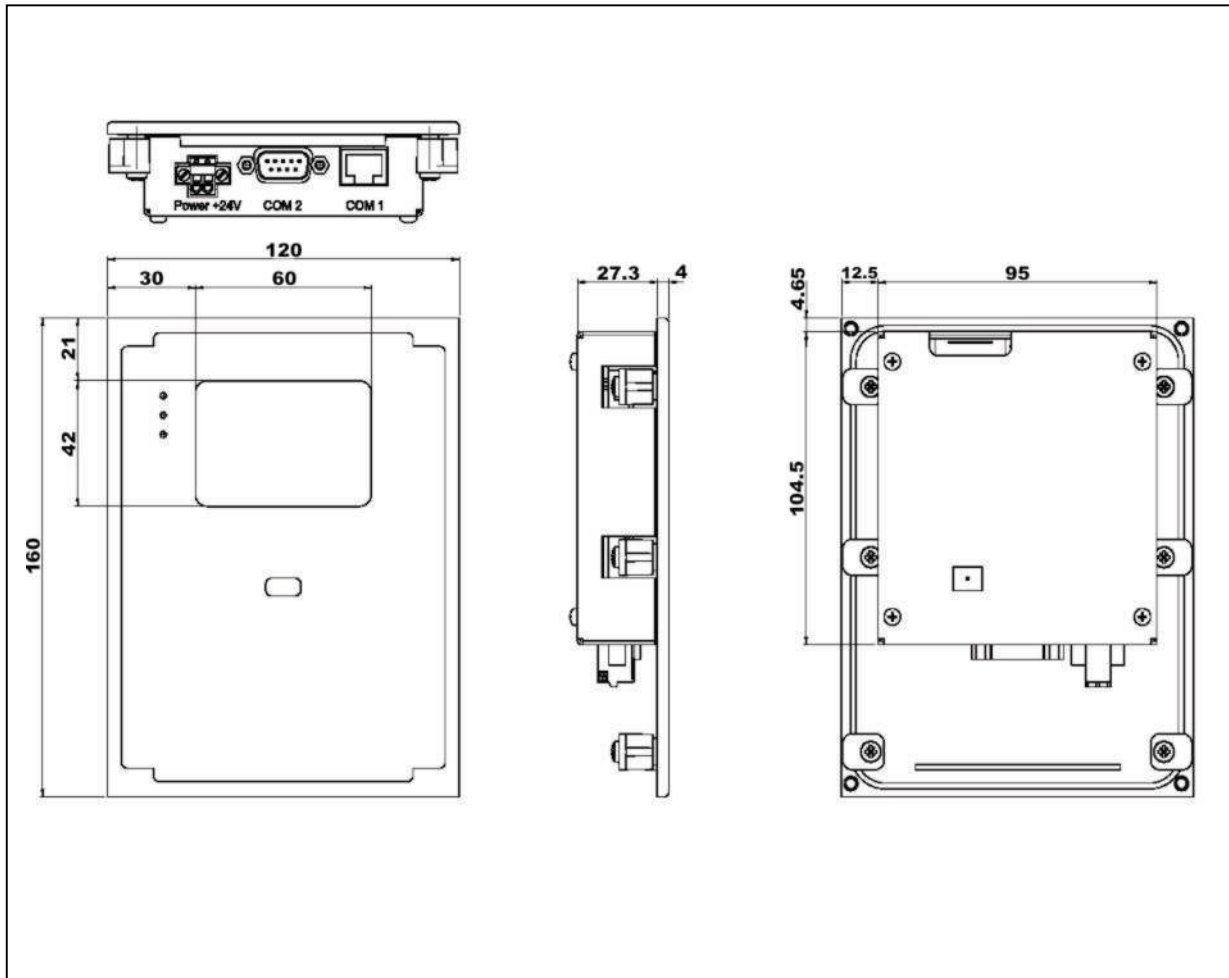
Environmental Conditions

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

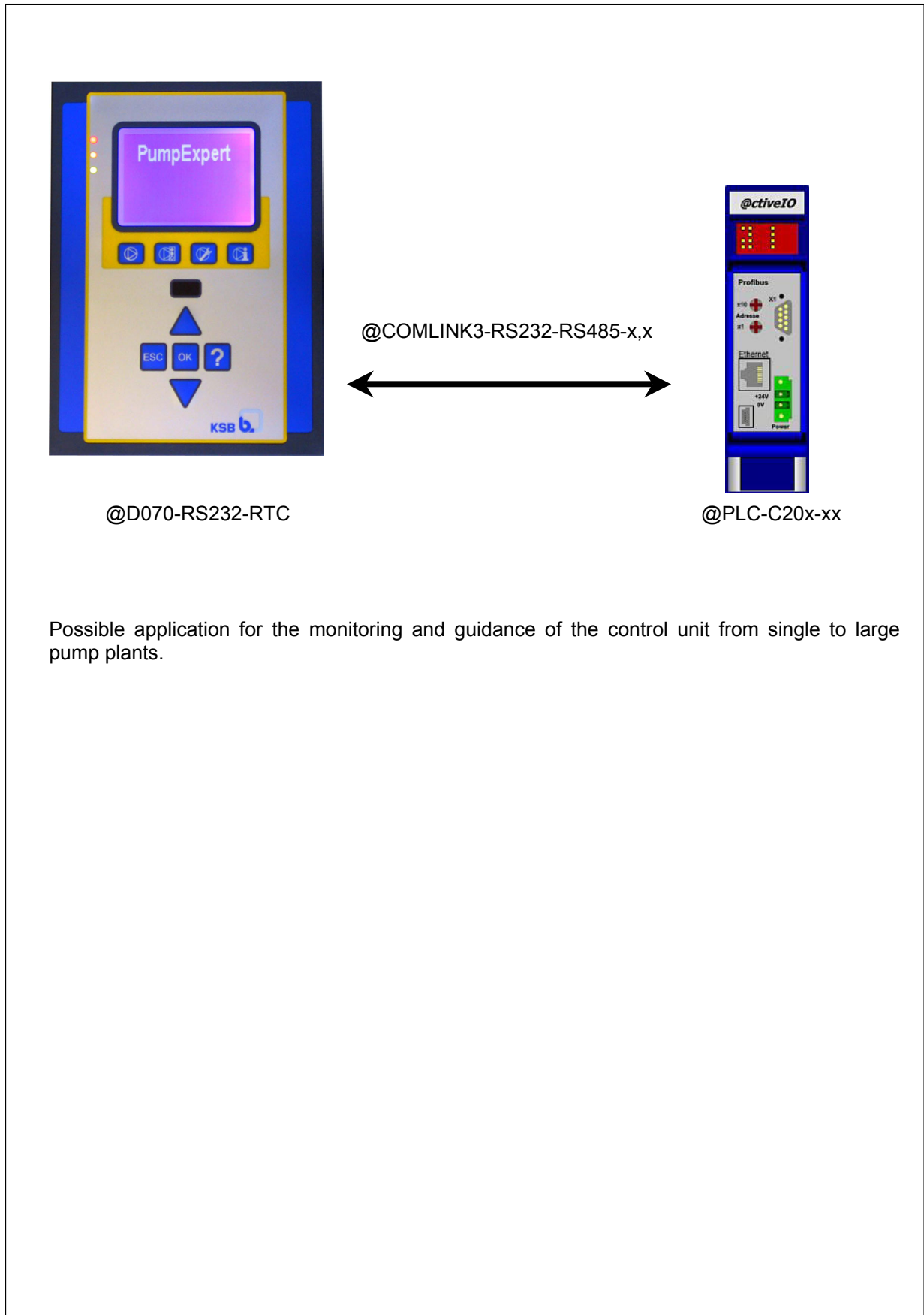
Weight Approx. 0.4 kg
Dimension 160mm x 120mm x 35mm

Drawing



TR-Systemtechnik GmbH, Eglisshalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de

Example of Application



Possible application for the monitoring and guidance of the control unit from single to large pump plants.

TR-Systemtechnik GmbH, Eglshalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de

@D070-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 "Boot Link Cable".

The "Boot Link Cable" is a special data cable with a separate change over switch to allow the selection of the mode "Serial" or "Boot".

Internally, when switched to "Boot" mode, Pin 5 (GND) & Pin 9 in the Sub D plug are connected. 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.

Procedure:

- > Set the "Boot Link Cable" 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.
- > Set the "Boot Link Cable" to "Serial" Mode or disconnect the cable.
- > Reconnect the power supply to the control terminal. The new firmware is now operational.

Revision change

Version	Description	Date (m/y)
00	serie 0	09/03

TR-Systemtechnik GmbH, Eglishalde 16, 78647 Trossingen, Tel.: +49 (0) 7425 228-0, Fax: +49 (0) 7425 228-34, www.activeio.de, info@tr-systemtechnik.de