

# BLACKBOX 2 *for PLC-ANALYZER pro 5*

BLACKBOX – Long-term PLC process data recording and remote service with *PLC-ANALYZER pro 5*. Mini-PC for integration in switching cabinets



The **BLACKBOX** from AUTEM provides an ultra-compact data acquisition computer for the long-term recording of PLC signals and external electrical values (PLC process data archiving) and also remote maintenance using the *PLC-ANALYZER pro 5*. Due to its small dimensions, the system can be integrated in a switching cabinet without any problem.

The BLACKBOX can continuously record and archive processing data over a longer period of time; typically in excess of 3 years.

The BLACKBOX automatically begins recording signals after being switched on and then operates autarkical.

This form of continuous recording is relevant for system and machine manufacturers and users because the data obtained is applicable for localizing faults as well as documenting operating behavior and system operation.

Maintenance, construction and quality assurance receive valuable information concerning the system.

The recorded data also serves as incorruptible evidence in searching for the cause and the elimination of faults, for example.

It is connected to the PLC by means supported by the *PLC-ANALYZER pro 5*, i.e. via connection to the PU interface or an automation network (MPI, PROFIBUS, Industrial Ethernet TCP/IP, Modbus+ ...).



The BLACKBOX can be directly equipped with a PCI card. This also ensures a high performance bus connection, e.g. using CP5611 for MPI / PROFIBUS with SIMATIC S7 or PCI-85 for Modbus+ with Schneider.

It is possible acquire data from several, different PLCs simultaneously.

The optionally available **AD\_USB-Box**<sup>®</sup> even enables the additional, simultaneous acquisition of external electrical measured values.

The power supply for the BLACKBOX is 12 ~ 30 V DC. An external AC mains power supply (100 ~ 240 V AC) is also provided in the scope of delivery.

The BLACKBOX is designed in such a way that it is fully capable of running without any additional peripheral equipment. Only connection to the power supply and to the PLC are necessary for operation.

If necessary, a keyboard, mouse and monitor can be connected to the BLACKBOX. A particularly sophisticated feature is remote operation from any PC via a network connection (LAN). The remote software and an appropriate 2 m cross-over patch cable for direct connection are contained in the materials supplied with the BLACKBOX. It is also preconfigured for remote control via a modem or Internet (VPN).

The integrated Watchdog ensures that the BLACKBOX is automatically rebooted in the case of a recording fault. The operating status of the BLACKBOX can also be requested at any time from an external device (floating contact). Recording is automatically resumed after rebooting.

The high degree of operational reliability enables a practically continuous recording of signals over several years. When the capacity has been reached, the oldest signal file is automatically deleted to create space for new signal data.

Signal files recorded by the *PLC-ANALYZER pro 5* can be transferred via the remote network connection at any time, even when the BLACKBOX is in recording mode, to an external PC for further analysis and evaluation.

The system is delivered ready to go with plc communication adapter and software license *PLC-ANALYZER pro 5* for BLACKBOX. Bundles for different PLC systems are available.

## Fields of application

- Long-term PLC process data recording
- Failure diagnosis
- Determine cause of production loss
- Preventive maintenance
- Documentation, QA, TPM, QEE
- Remote-Service

SIMATIC, SIMATIC-NET, S7, S5, CP5611 are trademarks of Siemens AG

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## Technical Features & Scope of delivery

- Massive aluminium case (FANless)
- Fanless Mini-PC Celeron M 1.3 GHz / 80 GB HDD
- Housing dimensions (WxDxH): 195 x 268 x 80 mm
- Control LEDs for RECORDING, POWER, HDD, LAN
- Connections: PS/2 keyboard & mouse, S-Video TV-out, Mic-IN, Speaker OUT, 6 x USB, 3 x RS232, 1 x RS232/RS422/485, 2 x RJ45 LAN 10/100 Base-TX
- Power supply 12 ~ 30 Volt DC, 120 watt
- Ext. power adapter 100 ~ 240 Volt AC, 2A, 50 ~ 60 Hz
- Operating temperature range: 5°C ~ 45°C
- Windows XP Pro operating system
- Watchdog monitoring
- External, free floating contact ("LIFE-INDICATOR") for external indication of operating status
- Siemens CP 5611 - SIMATIC-NET PROFIBUS/MPI adapter in internal PCI-slot; other PLC-adapter optional
- Remote maintenance SW (Win9x/NT/2000/XP/Vista) and TP RJ45 cross-over patch cable for remote control by external PC
- Remote control via LAN, dial-up networking (modem) or internet (VPN) possible
- Signal recording capacity typ.  $\varnothing$  3 years
- BLACKBOX-license PLC-ANALYZER pro 5 with PLC-driver Siemens SIMATIC S7 - MPI/PPI/PROFIBUS cycle-precise, incl. documentation; alternative PLC-driver optional
- Software is completely installed, preconfigured and ready to run
- 48-hour burn-in, CE certificate
- 12 months warranty

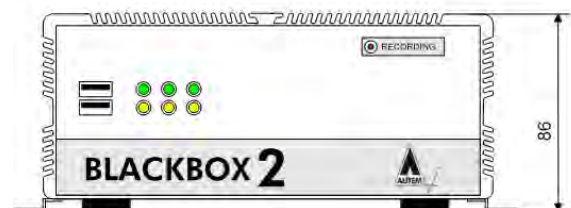
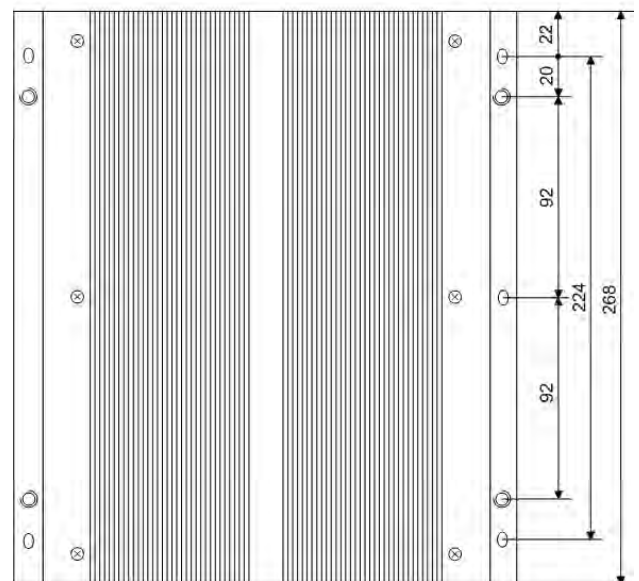
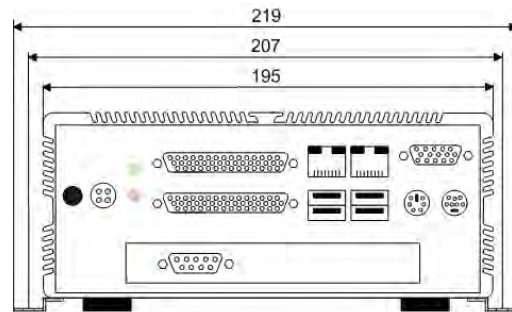
## Accessories (optional)

- Schneider PCI-85 Modbus Plus Adapter (ANA1570)
- COM connection PC-SIMATIC S5 (ANA1500)
- USB connection PC-SIMATIC S5 (ANA1530)
- COM connection PC-SIMATIC S7 (MPI/PPI) (ANA1550)
- USB/COM connection PC-SIMATIC S7 (MPI/PROFIBUS) (ANA1560)
- S7 Netlink (Ethernet-Gateway MPI/PROFIBUS) (ANA1580)
- AD\_USB-Box (ANA5510)

## To order

Please refer to our current price list for prices and order numbers.

## BLACKBOX dimensions



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