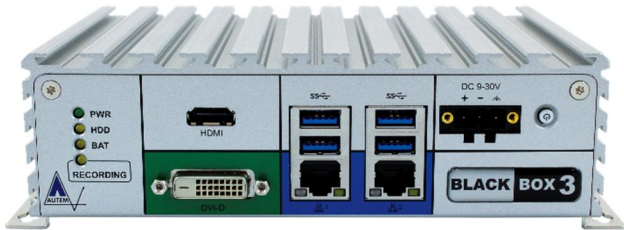


NEW

BLACKBOX 3 for PLC-ANALYZER pro 5

Stand-alone PLC process data recording and remote service - BLACKBOX system with PLC-ANALYZER pro 5



The new **BLACKBOX 3** 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 service technician can also conveniently transport the system to the customer in a suitcase (aircraft).

The **BLACKBOX** can continuously record and archive processing data (several hundred signals) 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 autarkically.

This kind 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 of a machine.

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

The recorded data also serves as incorruptible evidence in searching for the cause and the elimination of faults and the clarification of warranty claims.

The **BLACKBOX** can also be used as a condition-monitoring-system (CMS).

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



A simultaneous data acquisition from several - also different - PLCs is possible.

The optionally available **AD_USB-Box®** (Part.-No. ANA5510E) even enables the additional, simultaneous acquisition of external electrical measured values, which are not available in the plc.

The power supply for the **BLACKBOX** is 9 ~ 30 V DC. An external AC mains power supply (100 ~ 240 V AC) is also provided in the scope of delivery).

If necessary, a keyboard, mouse and display can be connected to the **BLACKBOX**. The device has 4 fast USB 3.0 ports. A particularly sophisticated feature is remote operation from any PC via a LAN connection. The remote software and an appropriate 3 m LAN patch cable for a directly connection are scope of delivery of the **BLACKBOX**. It is also preconfigured for remote control via a modem or Internet (VPN).

The **BLACKBOX** can be installed in the machine permanently or temporarily. Via remote control it is possible to access the recorded signal data for analysis and evaluation - even during running data acquisition.

The **BLACKBOX** is optimized for autarkical stand-alone operation. An 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 outside by a floating contact („LIFE-INDICATOR“). Extensive operating informations can be transferred by E-mail / SMS - optional also via GSM-modem - („REMOTE-STATUS-INDICATOR“).

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

The system is delivered ready to use with PLC communication adapter and software license **PLC-ANALYZER pro 5** for BLACKBOX (base module + plc-driver(s)). Bundles for different PLC systems are available.

Fields of application

- Long-term PLC process data recording
- Failure diagnosis
- Determine cause of production loss / warranty case
- Objective inspection of operating parameters
- Preventive maintenance / Condition monitoring
- System documentation, QA, TPM, QEE, CMS
- Remote-Service

SIMATIC, S7, S7-1200, S7-1500, TIA-Portal are trademarks of Siemens AG



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for PLC-ANALYZER pro 5

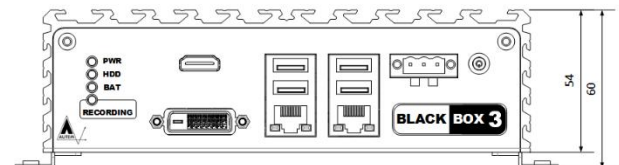
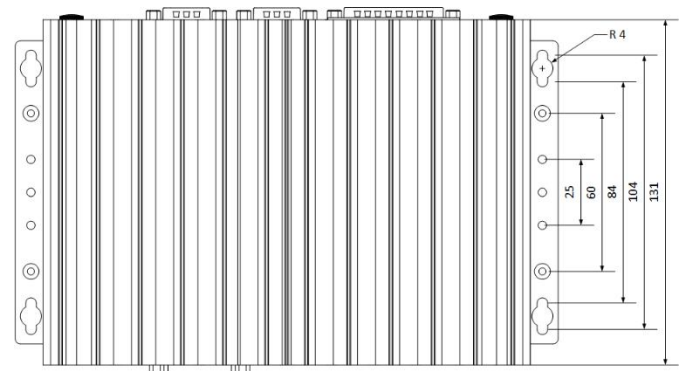
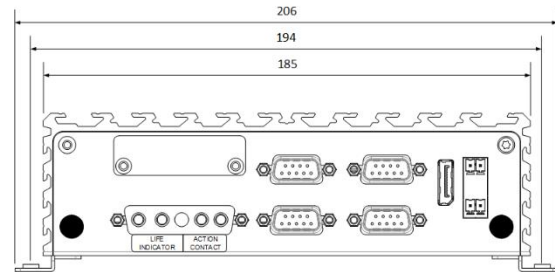
Technical Features & Scope of delivery

- Massive aluminium case
- Mini-PC (FANless) with Intel Pentium Quadcore 1.6 GHz
- 500 GB SSD / 4 GB RAM
- Dimensions (WxDxH): 185 x 131 x 54 mm / 1,35 kg
- DIN rail mounting / Adapter scope of delivery
- Control-LEDs for RECORDING, PWR, HDD, BAT, LAN
- 4 x USB 3.0 (each 900 mA load-bearing)
- 2 x GbE LAN Port (Gigabit Ethernet)
- Video output: HDMI, DVI-D, DP-Display Port
- 2 x 9 pol. D-Sub RS232/RS422/485 (COM1/COM2), 2 x 9 pol. D-Sub RS232 (COM3/COM4)
- 1 x CFast slot
- 2 x Antenna connection for opt. Wi-Fi/3G/LTE-module
- Mini-PCIe slot for opt. addit. modules (Wi-Fi/LTE/...) full-size/half-size / integr. SIM card holder
- Power supply 9 ~ 30 V DC, 25 W
- Plug with cable for ext. DC power supply
- Ext. power supply 100 ~ 240 V AC, 1,5 A, 50 ~ 60 Hz
- Connection for remote PWR-ON/OFF, plug incl.
- Environment: -5°C ~ 55°C operating temperature (ambient with air flow / according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14), 10 % ~ 95 % rel. humidity – non-condensing
- Signal recording capacity typ. Ø 3 years
- Watchdog monitoring
- External, free floating contact ("LIFE-INDICATOR") for external indication of operating status (plug is scope of delivery)
- Status messages via E-mail or SMS (opt.) („REMOTE-STATUS-INDICATOR")
- 3 m LAN patch cable (Cat. 5e) for direct remote control by external PC scope of delivery
- Windows 10 pro (64-Bit) (multi-language)
- Remote control via LAN, WAN, (Radio-) Modem/Internet (VPN) possible
- BLACKBOX-license PLC-ANALYZER pro 5 with desired PLC-driver incl. documentation
- Software is completely installed, preconfigured („ready-to-run")
- CE, FCC Class A
- 48 hour Burn-In, 12 months warranty

Accessories (optional)

- Special-UPS 24 V DC (maintenance free) for BLACKBOX 3 (UPS24MF)
- LTE-Modem for BLACKBOX 3 (LTE1000E)
- WLAN-AC USB Nano adapter (WIF1010E)
- Vibration damper for BLACKBOX (ANA9055E)
- Highspeed USB - S7 Adapter (ANA1600E)
- USB - S5 Adapter (ANA1530E)
- S7 LAN (Ethernet-Gateway MPI/PROFIBUS) (ANA1650E)
- USB - Schneider Modbus+ Adapter (ANA1555E)
- AD_USB-Box (ANA5510E)

BLACKBOX 3 dimensions (mm)



To order

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

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