**APEK**

# Measuring modular system AK32.

AK32

**General information**:

AK32 system is measuring modular system for dynamic and static measurements. It is located in the measuring tape made of stainless steel. Thanks to the modular design is easy to configure as needed. It has versions for both indoor and outdoor. Along with the software allows dynamic and static measurements, it can make sophisticated analysis of the measurements and the results of analyses and measurements place on remote servers. The system is design to work with a variety of external sensors. Conditioning sensors systems are placed in the measuring cards and the parameters in the configuration files. The system is fully controlled by a computer program APEK Assist Prezenter. The software allows you to connect several different systems with different types of transmission.

System AK (example):
- Stationary cassette with 6 measuring cards and 32 inputs.
- Input jacks: screw.
- Option with external 32 inputs driver.

**Technical parameters:**
- number of position of measurement: 9,
- measuring bus: 40 PIN,
- casing material: stainless steel,
- dimension 135x72x19mm,
- weight (6 cards) round about 0.9kg,

AK32 parameters with AK.AVR driver:
- number of analogue input: 32,
- 16 bits converter.
- communication: USB 2.0. (UART optionally)
- supply: USB port or from joint function 5V
- supply current: 80mA (without sensors)
- sample rate: from 1Hz to 10kHz.
- galvanic isolation inputs of digital circuit.

**The main features of the system:**
- Scalability.
- Flexibility of configuration.
- Accuracy of measurement.
- Cooperate with AL154 system.
- A wide range of software.

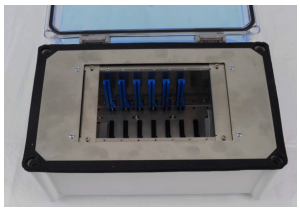
**Application:**
- scientific research;
- dynamic measurements, static monitoring;
- monitoring machines and systems;
- monitoring building constructions;
- measurements in aircraft and automotive industry;
- measuring system to drivers and regulators;
- registry and canvassing of measurements.

Measuring cartridges:

Available three kinds of measuring cards with two, four or eight position.

Stationary: AK32KL with measuring cards.

Wall type: AK32WO Six-position.

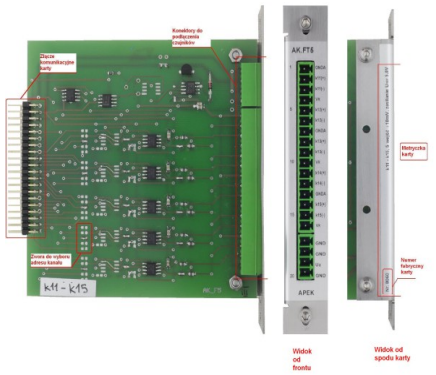


In hermetic casing AV32.APO.

**APEK**
02-804 Warsaw
Gżegżółki 7 Street

http://www.apek.pl
tel/fax. +48 22 6447970
e-mail: biuro@apek.pl

Measuring cards:



Measuring cards AK to AK32 system allow flexible system configuration. They can be change by the user. Cards are identified by type and serial number, each has described input numbers making easier configuration of APEK Assist program. The APEK Assist allows you, outside provided by manufacturer, a user's characteristics by modifying the tape of the card.
Cards have:
Bus measurement: 40 pin connectors.
Measuring inputs: 16 screw connectors.
Mounting: two M3 screw

Measuring cards:

1. **AK.AVR,** Driver's card type AK.AVR with USB port, micro SD memory card.
2. **AK.CTR.LAN,** Communication card, TCP/IP transmission.
   Example: scattered measurements.
3. **AK.CTR.RS422,** Communication card, RS422 transmission.
   Example: monitoring of distant subjects.
4. **AK3F2U,** Card with low-pass filters AKF3U2, 3 low-pass filters software selected from 4Hz to 6KHz. 2 voltage inputs 0-5V.
   Example: 3 accelerometer inputs, 2 inputs linear sensor.
5. **AKF5,** Card with low-pass filters AKF5, 5 inputs with low-pass filters.
   Example: 5 accelerometer inputs e.g. 1 three-axis and 1 biaxial.
6. **AK.U3I2,** 3 supply inputs 0-5V and 2 current inputs 4-20mA.
   Example: 3 forward sensors, 2 pressure sensors.
7. **AK.U5,** 5 voltage inputs 0-5V
   Example: 5 forward sensors.
8. **AK.FT5,** 5 strain gauge inputs ± 10mV.
   Example: 5 force sensors inputs.
9. **AK.PT**, 5 temperature sensors inputs PT100/PT500/PT1000.
   Example: temperature measurement.
10. **AK.CT**, 5 thermocouple inputs with compensation, available characteristics of the sensors: K,J,T.
    Example: temperature measurement.
11. **AK.W5B,** 5 inputs of differential amplifiers range of ± 10V.
    Example: cooperate with scientific apparatus.
12. **AK.ACU**, power supply card with built-in battery.
    Example: battery system with recording on SD card.

Modules co-operating with AK32 systems:

1. **AV32M37U32**, 32-inputs recorder.
2. **AV32M37U16**, 16-inputs recorder.
3. **AV32MF37**, 8-inputs recorder.
4. **RF-DUIP**, Converter module impulse/voltage.
5. **RF-GSM**, velocity measurement module.
6. **AV32PWR**, module of measurement single and three-phase receiver.

**APEK**
02-804 Warsaw
Gżegżółki 7 Street

http://www.apek.pl
tel/fax. +48 22 6447970
e-mail: biuro@apek.pl