

AN307 PERIMETER SYSTEM

Mars Commerce
info@mars-commerce.si

AN307COM, AN307, AN306

AN306 can protect up to 300 meters long wire fence whereas AN307 or AN307COM can protect two times up to 300 meters long wire fence. Protection can be realized for up to 600 meters long wire fence or for double protection up to 300 meters long fence.

Simple fitting

The detector can protect fences of two times of max. 300 meters with special sensor cable assembled between the master unit and the end unit. The sensor cable is stretched on the fence about 1m above the ground and it is fastened with special clips.

DSIGP® technology

New DSIGP® technology makes this product unique. The vibrations of the fence, other than normal weather or wind conditions are registered for alarm by new DSIGP® technology. Disturbances caused by external influences, for instance EMF, are successfully eliminated.

Green technology

Power consumption is very small, less than 1W. Low power consumption (approximately 60mA at 12VDC) leads to the small power cable cross-section. Supply voltage can vary between 7 and 24 VDC which further reduce the impact of voltage drops on power cables.

Technical data

- Master unit: waterproof IP65 aluminum casing
- Weight of master unit: 970 g
- Dimensions of master unit: 175 mm x 80 mm x 60 mm
- Ending unit: waterproof IP65 aluminum casing
- Dimensions of ending unit: 50 mm x 45 mm x 30 mm
- Weight of ending unit: 140 g
- Type of sensor cable: AS257
- Diameter of sensor cable: 6 mm
- Working temperature: from -40°C to +70°C
- Technology: new unique DSIGP®
- Supply voltage: from 7.0 VDC to 24.0 VDC
- Supply protection: with 600W transient voltage suppressors
- Power consumption: less than 1 W
- Relays: 3 relays, NC (only two active when RS485 is built in)
- Relays max current: 2 A
- Relays max. switching voltage: 30 VDC
- Relays protection: protected with 600W/36V transient voltage suppressors
- Tuning: menu system with 3 keys and 3 digit display
- RS485 (option): terminal A and B, galvanic isolation, 15kV ESD Protected
- Perimeter Guard AN307 Software for remote control of events
- RS232/RS485 (K307) secure connection or
- Ethernet/RS485 (UDS1100) secure connection
- Remote control of parameters
- SDK functionality of Guard Software
- Definition of users with passwords for different tasks

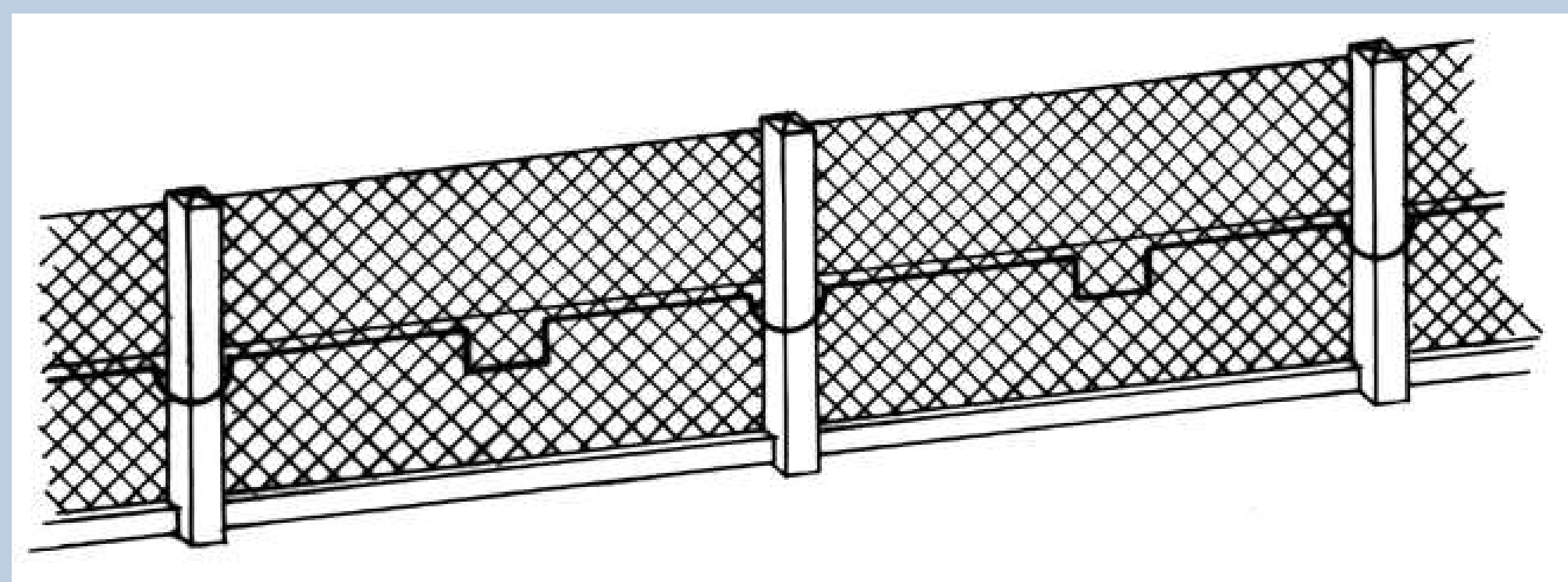
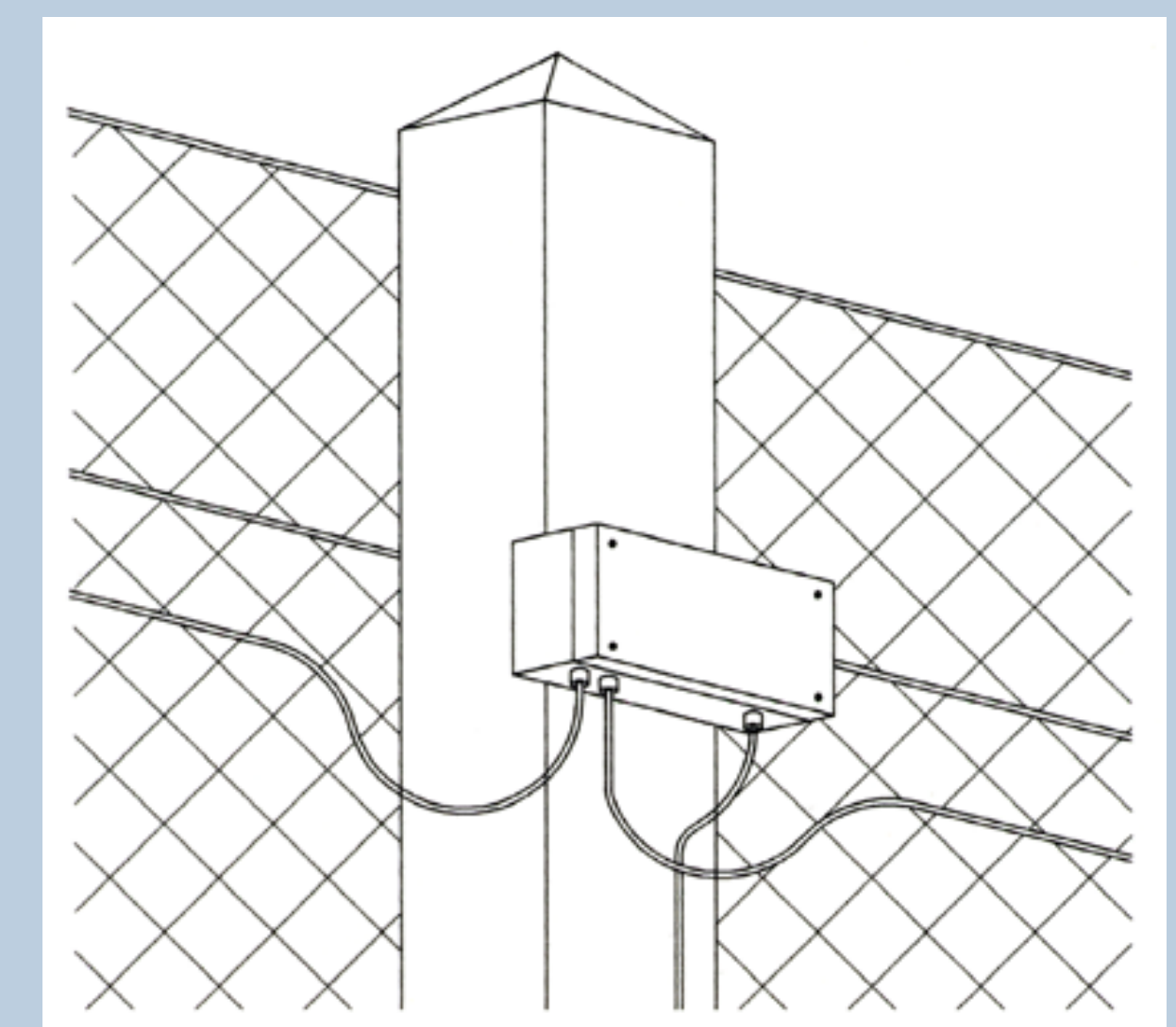
AN307COM, AN307, AN306

The system is used for security of a wired fence with a maximum length of two times 300 m. AN307 is in essence two units in one unit: two wings of 300 m sensor cable make together 600 m protection with only one unit! A sensor cable, specially sensible to mechanical vibrations, should be fastened to the fence. The cable ends with an end module on one side. The other cable end is connected to the electronic system (main unit), perceiving the activities taking place on the wire. The AN307 main unit does not have its own supply and therefore must be connected to an integral system (alarm panel) with additional battery supply. The principle of generating alarms out of the sensor cable is patented.



Installation

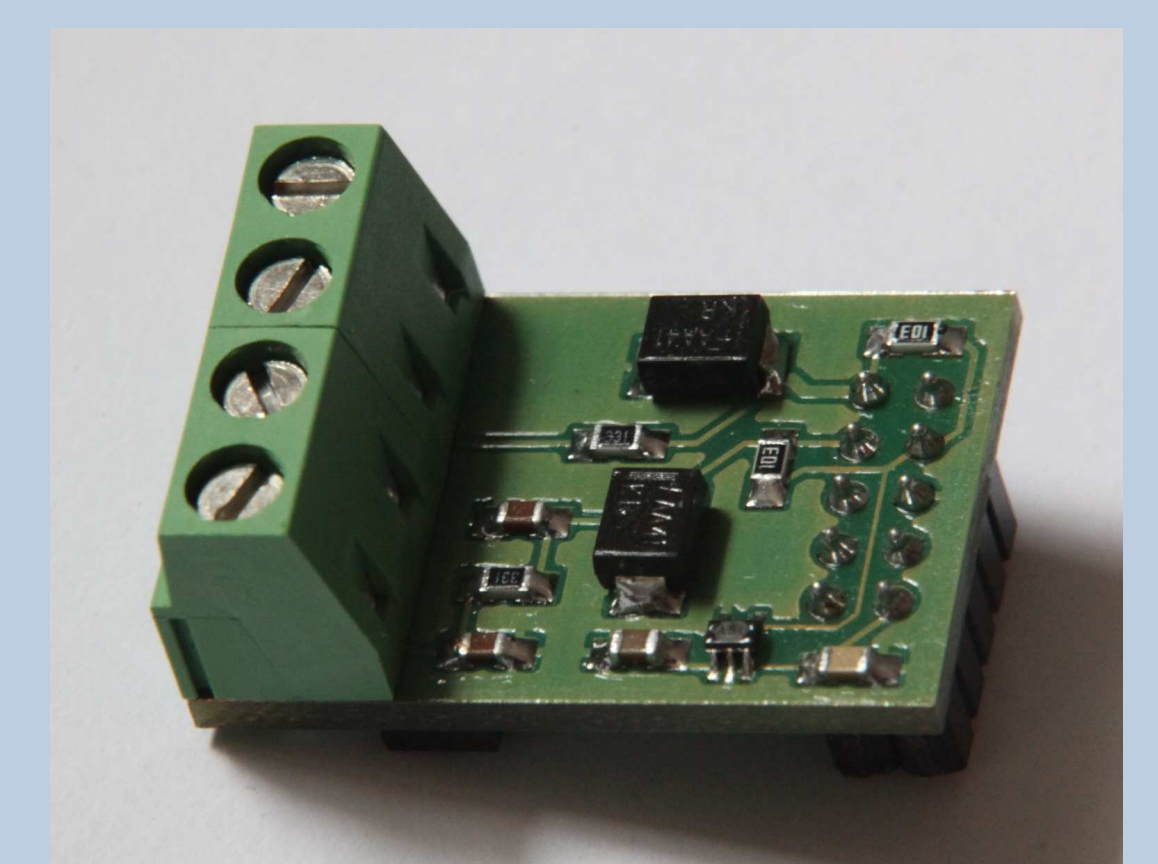
Cable AS257 which works as a sensor is installed on the wired fence about 1m above ground floor. Cable is fastened onto a fence in length of 40 - 60 cm by plastic clips. On one side the cable ends by an end module while on the other end it is connected to the main unit. Main unit has two or three relays, for the burglar alarm, cable fault and for the anti - tamper. Main unit must be connected to an integral system (alarm panel with relay outputs or Guard software with RS485/Ethernet communication line).



Wind and temperature correction

Wind measurement and temperature measurement can be done with combination of WTS307 and WSM101/reed devices. There is some degradation of sensitivity of the sensor cable at low temperature. WTS307 compensates (increase) the sensitivity of AN306/AN307 device at low temperature. On the other hand, there are problems with false alarms at high wind speed. Therefore WTS307 and WSM101/reed compensate (decrease) the sensitivity of AN306/AN307 device at high wind speed.

WTS307 is a small piggyback device installed inside AN306/AN307 device. Once inserted into the AN306/AN307 device, it automatically measures temperature. This device also has two additional inputs, one is for connecting wind measurement device WSM101/reed, the other is auxiliary for future use.



WSM101/reed is easy to install, wind speed sensor with reed contact output. It can measure wind up to 55,0 m/s. WSM101 should be mounted near AN307 device on a pipe with 27 mm outside diameter. The sensor consists of a plastic body and the head of the sensor with stainless steel ball bearings and windmills. The working temperature is from -20°C to +60°C. Sensitivity of AN306, AN307 or AN307 is reduced depending on the wind speed. Up to 10 m/s there is practically no impact on sensitivity. With a wind speed of 10 m/s up to 30 m/s there is a linear degradation of sensitivity. Over 30 m/s there is constant maximal degradation of sensitivity.

GUARD AN307 SOFTWARE

Mars Commerce
 info@mars-commerce.si

Guard AN307 Software

A Perimeter Guard AN307 Software is used for connection of several AN307COM devices to the integrated system. AN307COM devices are connected to the system with RS485 two wire standard. Currently there are two solutions to terminate RS485 communication: through K307 device (manufactured by Anikom) or through UDS1100 device(s) (manufactured by Lantronix). If RS485 communication can be brought close to the PC computer, where Guard Software is running, then K307 can be used. In case that RS485 can not be directly brought to the PC computer, one or several UDS1100 can be used.

K307

A K307 is used for connection of several AN307COM devices to the integrated system. K307 is, in the first place, converter from RS485 to RS232 hardware protocol. RS485 is galvanic separated from the rest of the terminals (RS232, power supply and relays outputs). Two additional relays outputs offer information on the functioning of Guard Software and the state of the overall alarm.



UDS1100

An UDS1100 is an Ethernet alternative to K307. The UDS1100 is a single-port device server that provides a quick and simple way to bring the advantages of data accessibility and remote management of devices not currently connected to the network.



LR307USB

A LR307USB is an output event device with 24 relays with easy plug-and-play USB connection to a PC computer. Each relay can represent single or more alarm states. For each relay you can set events: ALARM 1, SABOTAGE 1, ALARM 2, SABOTAGE 2, BOX and FAULT for each AN307COM device. Each relay can be configured to manifest one event or can be configured to manifest all events. All intermediate variants are also possible.

Up to eight LR307USB devices can be connected to one Guard Software.



Guard Software

Perimeter Guard AN307 (User = superuser)

Guard Users Configure Settings History Help

Main Status

OK

25.11.2011 15:20:38

Alarm Off Sound Off

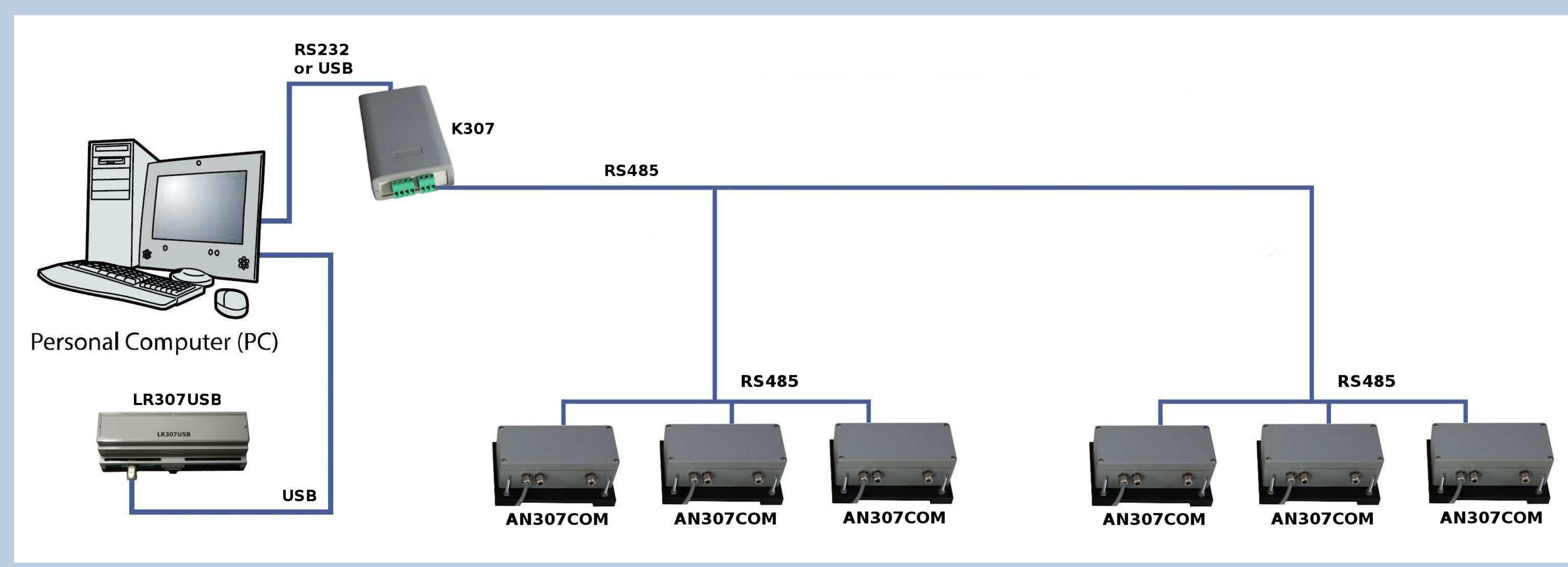
COLOR LEGEND

- NOT OPERATING
- ALARM
- PRE ALARM
- CABLE FAULT
- WRONG OPERATION
- BOX OPEN
- VOLTAGE LOW
- VOLTAGE HIGH
- NORMAL

	Date	Hour	Event	Location	User
1	25.nov.2011	15:20:34	ALARM OFF	West fence at swimming pool	superuser
2	25.nov.2011	15:13:13	ALARM	West fence at swimming pool	superuser
3	25.nov.2011	15:12:56	CABLE OK	East fence	superuser
4	25.nov.2011	15:12:50	CABLE FAULT	East fence	superuser
5	25.nov.2011	15:12:33	BOX CLOSE	South fence near street, West fence at sw...	superuser
6	25.nov.2011	15:12:30	BOX OPEN	South fence near street, West fence at sw...	superuser
7	25.nov.2011	15:12:20	BOX CLOSE	North fence near main gate, East fence	superuser
8	25.nov.2011	15:12:18	BOX OPEN	North fence near main gate, East fence	superuser
9	25.nov.2011	15:12:17	BOX CLOSE	North fence near main gate, East fence	superuser

Wiring K307

Power supply and RS485 communication are transmitted by cable to each AN307COM device. It is recommended that for RS485 communication twisted pair cable is used. Also it is recommended, that this cable is shielded. If the length of RS485 line is more than 2 km, additional RS485 repeater (for example R307) should be used. Up to 254 AN307COM devices can be connected to one Guard Software.



Wiring UDS1100

For long distances and if an Ethernet connection is available: several UDS1100 can be linked to one Perimeter Guard AN307 Software. Each UDS1100 should have unique IP address. To each UDS1100 several AN307COM can be connected. Each AN307COM should have unique RS485 address. This rule is also valid if two AN307COM are not connected to the same UDS1100 (equal RS485 addresses are not allowed). Up to 254 AN307COM devices can be connected to one Guard Software.

