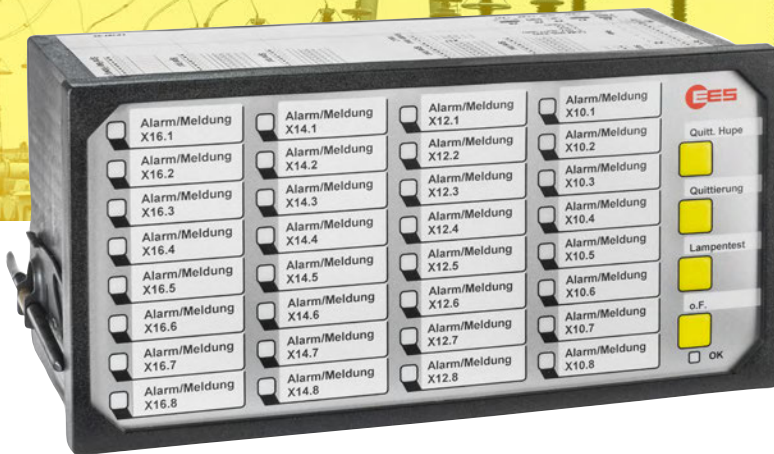
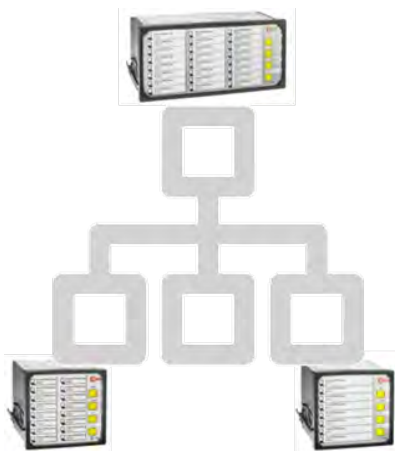


check
and
control



NETWORKING OF FAULT ANNUNCIATORS OVER IEC 61850/60870-5-104 AND MODBUS PROTOCOL



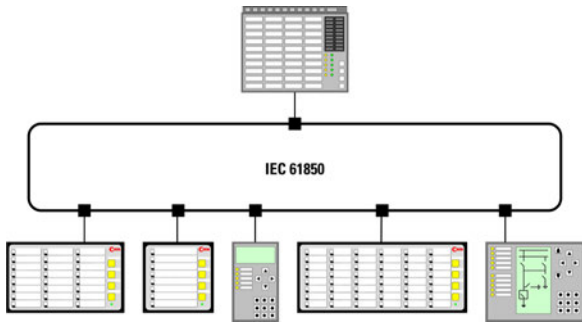
The networking of plant sections and devices by use of standardised protocols offers a great cost-saving advantage. Extensive cable laying works and cost-intensive SCADA modules for recording and alarming can be reduced.

With EES annunciators you are primed for tomorrow's requirements. Annunciators of the series USM and WAP come with communication interfaces acc. to IEC 60870-5-101/104 and Modbus TCP/RTU and can easily be updated to IEC 61850 by software license key.

Devices with 8...48 inputs are available and by cascading, alarm systems with up to 192 alarm points can be realised. Beside the states of the inputs, additional information such as acknowledgement status or device information can be transmitted over the station bus.



ANNUNCIATORS IN IEC 61850 STRUCTURES

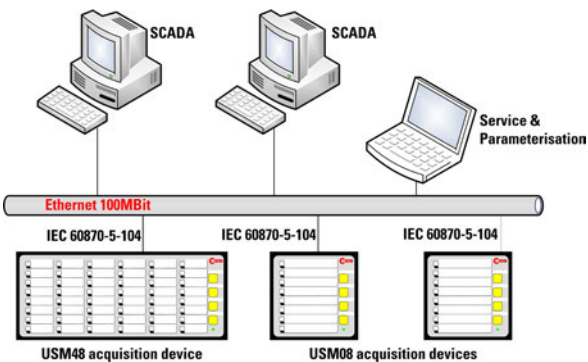


USM within the 61850 station bus

Various specific single point alarms are available which – depending on the type of information – need to be transmitted to the SCADA system or to other devices on field or station level. The annunciator adopts this “rag-man“ functionality and provides these single point information on the integrated IEC 61850 server.

Individual reports and datasets can be configured easily which contain all relevant information about the alarms and device status.

ANNUNCIATORS AS ACQUISITION DEVICE

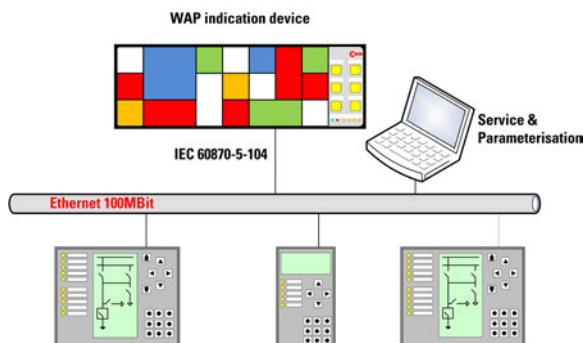


USM as acquisition device

EES annunciators can act as acquisition devices which process and display alarms locally. Alarm sequences acc. to ANSI/ISA 18.1 can be realised.

In addition, the alarms are forwarded to the SCADA level through Modbus TCP/RTU, IEC 60870-5-101 or -104 and IEC 61850.

ANNUNCIATORS AS INDICATION DEVICE



WAP as indication device

EES annunciators can signalise alarms, which are gathered from the Modbus or IEC interface. Interpretation of single as well as double alarms is possible. A galvanic delivery of the signals is not required, thus the wiring of the single alarm signals is obsolete.

Additionally, alarm states can be transmitted to other annunciators within the same network, so mirroring of information is possible.

CONTACT

Elektra-Elektronik GmbH & Co. Störcontroller KG

Hummelbühl 7-7/1 | 71522 Backnang | Germany | Tel. + 49 (0) 7191 182-0 | Fax +49 (0) 7191 182-200
www.ees-annunciator.com | info@ees-online.de