Short overview of devices in the system HospEC®	STU-107-V.3	SPR-107-V.4	ILT-107-V.4	UEI-710-V.5	IFS-710-PSG	IFS-710-W6	MPM 12-2	MPM 16-8	MPM 32-Vario	MPG-CAN-Triple	MPG-CAN-RS232/485	RCM-W6	RCM-W8	RCM-W8-AB	RCM-W24
Compatibility in the HospEC® system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Communication via CAN bus	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Supply voltage (at AC=50 Hz)	AC 230 V	DC 24 V	DC 24 V	AC 230 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V	DC 24 V
Guaranteeing the control voltage of line 1 and 2	✓	-	-	✓	-	-	-	-	-	-	-	-	-	-	-
Change-over control	-	1/3 phase	-	1 phase	-	-	-	-	-	-	-	-	-	-	-
Insulation, load and temperature monitoring in the 230 V IT system	-	-	1/3 phase	1 phase	-	-	-	-	-	-	-	-	-	-	
Insulation, load and temperature monitoring in the 24 V IT system	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-
Test signal generator	-	-	-	integrated	✓	-	-	-	-	-	-	-	-	-	-
Insulation fault detection, 6 channels	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-
Triggering of the insulation test 230 V	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-
Messages/signals are transferred to the CAN bus	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Messages/signals of the CAN bus are displayed	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-
Messages/signals of the CAN bus are decoupled digitally	-	-	-	-	-	-	✓	✓	✓	-	-	-	-	-	-
Integrated signal relay	✓	✓	✓	✓	-	-	-	-	-	-	-	-	✓	✓	✓
Integrated message history - number of data sets	-	-	200	200	-	-	-	-	-	-	-	-	-	-	-
Maximum number of different messages of external devices	-	-	-	96	-	-	-	-	-	-	-	-	-	-	-
Messages with full-graphic display	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-
Function digital in-/outputs to/fromCAN bus	-	-	-	-	-	-	✓	✓	✓	-	-	-	-	-	-
Digital input channels	-	-	-	-	-	-	12	16	32[1)]	-	-	-	-	-	-
Digital output channels	-	-	-	-	-	-	2	8	32[1)]	-	-	-	-	-	-
Number of 1-10 V interfaces for dimming function	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Logical linking of all input and output variables	-	-	-	-	-	-	✓	✓	✓	-	-	-	-	-	-
Real Time Clock (RTC)	-	-	-	✓	-	-	✓	✓	✓	-	-	-	-	-	-
Sign of life monitoring of other devices	-	-	-	-	-	-	✓	✓	✓	-	-	-	-	-	-
CAN routing function	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-
CAN modbus gateway	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-
Current detection (multi-channelled)	-	-	-	-	-	-	-	-	-	-	-	6	8	8	24
Maximum number of measuring channels per CAN bus segment	-	-	-	-	-	-	-	-	-	-	-	96	128	128	128
Evalutaion of only residual current	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-
Evaluation of residual and operating currents	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓
Detection of residual currents Type A	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	✓
Detection of residual currents Type B	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-
Transformer integrated in the device	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Transformer connectable to the device	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓
Freely parameterizable values per channel (lower and upper warning threshold/lower and upper triggering threshold)	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓

✓ yes - no [1)] Channels can be parameterized as in- or outputs by choice.

Control and monitoring devices in the HospEC® system

short overview

ESA ELEKTROSCHALTANLAGEN GRIMMA GmbH

ILT-107-V.4 – for the monitoring of IT systems

The ILT-107-V.4 is exclusively designed for the monitoring of IT systems. It monitors the insulation resistor in a AC 230 V system and AC 24 V system, the temperature and the load of the IT system transformer. It can be combined with all types of annunciator and control devices of ESA.
It has a display and an intuitive menu structure.

UEI-710-V.5 – for the monitoring of IT systems for change-over control

It is used in automatic change-over and monitoring devices for the changing between general power supply (GS) and safety power supply (SS) and as monitoring device for IT systems connected to the device. Here, it has all functions of the ILT-107-V.4.
In connection with insulation fault detection systems (IFS-710-W6), it works as a complete insulation fault detection system. It can be combined with all types of annunciator and control devices of ESA.

Umschalt- und Überwachungsgeräte

Devices of the series MPM – the digital I/O device with the “plus”

The devices detect any digital signals with their physical inputs. They also detect logical inputs. These are signals which are on the field bus (CAN). They are from other field bus devices, e. g. further devices of the series MPM, annunciator and control panels as well as all other ESA bus participtants. All signals can be linked to each other logically and provided on the physical outputs for evaluation and control. The devices can be switched with normal light switches and buttons. They are perfectly suitable, e. g. for the light control typical for hospitals. The MPM12-2 has a dimming function for two light circuits. It is predestined for the control of the surrounding lighting in operating rooms. The devices with single fault security can also monitor if there is any sign of life of other bus participants.

Devices of the series RCM – monitoring of currents and messaging of threshold exceedings

Faults in the power supply can be prevented by an early warning with our residual and operating current monitoring devices. The system and fire protection is raised as well. The multi-channelled monitoring devices have connectable or integrated current transformers. They are used in TN and TT systems, for operating current measuring, but they are also used in the IT system. For each monitoring channel, a two-stage messaging level can be freely parameterized. By using the devices, an early warning can be displayed in case of system faults. Messages can be displayed, e. g. on the operating and annunciating terminal BMTI 5 or on an annunciator and control panel of the series FolioTec.

Digitale Ein-/Ausgabegeräte und Differenz- und Betriebsstrom-Überwachungsgeräte

Requirements

Technology only acts in the background in hospitals but the health and welfare of the patients depend on its proper functioning. All technical components for the safety power supply are designed redundantly. The principle of single fault security must be strictly adhered to, i. e. an occurring fault must not cause the failure of the system. According to this, the technical components have to be chosen and used.

Our solution

With our control and monitoring devices, we provide a system to our customers which realizes all necessary control and monitoring functions and adheres to the requirements typical for hospitals.

Your advantage

- especially designed for the use in medical locations
- designed for the single fault security
- simple, clear and intuitive operation
- communication of all devices via standard field bus (CAN)
- problem-free integration into the building services control system
- connection of control and regulation functions also for external systems possible

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