

VIDEO ISOLATION AMPLIFIER ISOMED II



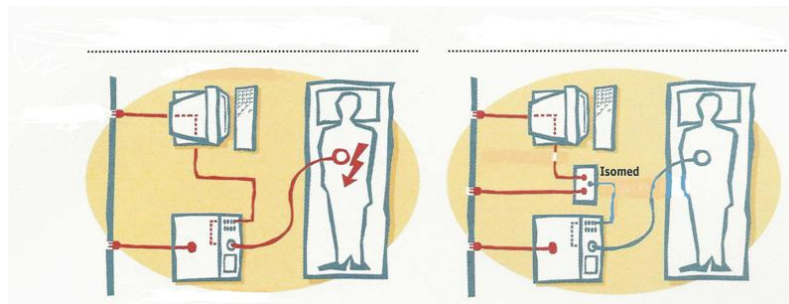
Medical devices in the areas of ultrasound, X-ray and NMR comply with the safety standards of the German Medical Regulation or the European standards of the Medical Devices Law, which has been in effect since 1. January 1995.

Auxiliary devices, such as video printers, video monitors or the video input on the PC, are not subject to the strict standards of medical devices. If medical devices are connected to such auxiliary devices over an interface that is not electrically isolated, the operating license for the medical device is invalidated.

The phase of the public power supply can reach the patient via the interface connection and a defective power supply unit on the auxiliary device.

Directives and standards dictate that such video signals must be separated in a way that there are no conducting connections between the input and output sides.

Furthermore, a minimum distance to the power network of 8mm (creepage distance) must be guaranteed.



This safety precaution guarantees that the health of your patients will not be put at risk, even if a peripheral device should fail (1st failure) and result in a potential voltage of up to 4,000 volts between the inputs and outputs of the isolation amplifier.

Without the isolation amplifier, there is a risk that leakage currents that are too high can flow over the patient, or that he or she comes into contact with the line voltage through a defective auxiliary device.

Video signals are electrically isolated from one another with the ISOMED II Video Isolation Amplifier.

The isolation amplifier is available in a

- **One-channel version for Composite and S-Video**
- **Two-channel version for S-Video and YC video signals**
- **Four-channel version for RGB and sync video signals**
- **One-channel version for SDI-High Definition.**

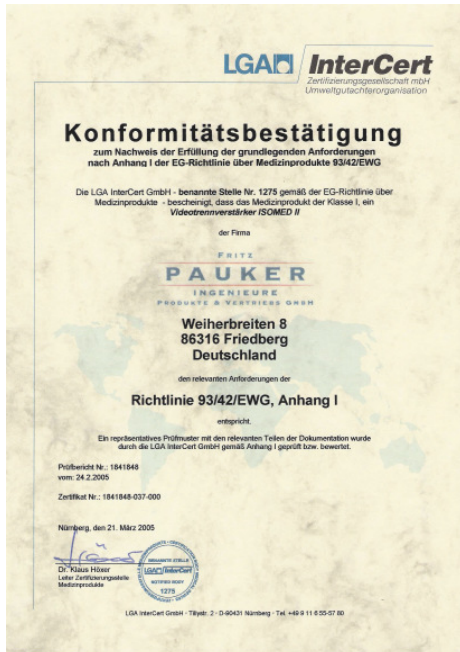
The two- and four-channel versions have additionally a RS232 interface which is also electrically isolated, and an electrically isolated switch channel (i.e. for the foot pedal).

The highest level of EM compatibility is guaranteed by the isolated screening of input and output amplifiers.

The ISOMED II isolation amplifier meets the requirements for protection class 1, protection degree B.

Its metal housing is power-coated and its front panels are made of POM plastic.

CERTIFICATION



GENERAL DATA

Weight	1,8 Kg (2ch.+4ch.) 1,45 Kg (1ch.+1ch. SDI)
Size	340x157x48mm (2ch.+4ch.) 240x157x48mm (1ch.+1ch. SDI)
Utilization category	„B“
Class of protection	IP 30
Models	2 channels SVHS 4 channels BNC 1 channel SVHS 1 channel BNC 1 channel SDI-HD

TECHNICAL SPECIFICATION

Power supply unit

Supply voltage	230V AC 50/60 Hz
Power consumption	7,2 VA

Video

Video input channels

Input impedance	75 Ohm
Input voltage	1,0 Vss 0,8 Vss for SDI

Coupling	AC
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Video output channels

Output impedance	75 Ohm
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Amplification	1 an 75 Ohm
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Coupling	AC
Delay	60 ns

Isolation

Creepage distance	8 mm
Dielectric strength	4000 V

Switch channel (for 2- and 4 channels)

Switch channel input	Relay input switching to ground (5mA)
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Switch channel output	Relay contact, normally open contact
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RS232 (for 2- and 4 channels)

Input	D-Sub9-pin connector 1:1 cable Baud rate
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Output	D-Sub9-pin socket Null modem
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Isolation	Creepage distance 8 mm Dielectric strength 4000 V
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PIN-assignments	RXD, TXD, CTS, RTS, DTR, DST
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