The certified MED-MG for medical applications.

Synthetic air supply by WITT – hygienic, safe, cost-effective!

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Medical applications, in particular, require high purity air. WITT gas mixing systems offer a solution for reliable production of “synthetic air”, a mixture of oxygen and nitrogen with a similar composition to the atmosphere. The gas mixing systems work oil- and fat-free and use pure gases from liquefied gas storage systems. Contrary to a compressor, an extensive and high maintenance processing, cleaning and drying of the air, is not necessary. With this solution, hospitals can achieve the highest air purity level for the protection of their patients and at the same time realise a very cost-effective central gas supply. Synthetic air mixers by WITT offer highest supply safety for central gas supply systems in hospitals. For decades, these systems have been used in many medical installations all over the world. The product generation MED-MG offers easy operation via touchscreen, low investment and maintenance costs, easy integration into existing systems and a low energy demand.

Of course, the gas mixing systems meet highest quality and safety standards regarding construction, material and manufacture. Modern WITT gas mixing technology is the heart of the systems. The redundant design of all safety relevant components ensures full functionality at any time even in the case of possible interferences. Using two independent gas analysers guarantees the correct combination of oxygen and nitrogen. Pressure inlet control, gas flow monitors, pressure equalising system, solenoid valves as well as the continuous self control of the systems are additional safety features. If an error should occur, the system automatically switches to a parallel supply unit. An integrated data log continuously records all results and alerts. Via Ethernet interface, the mixer can be connected to networks and other systems. WITT synthetic air mixers are certified as medical devices and CE marked according to European Directive 93/42/EEC (added by Directive 2007/47/EC). They have been designed according to DIN ISO 7396-1.

### BENEFITS
- Easy operation via touchscreen
- Low costs for energy and maintenance
- Flexible synthetic air withdrawal from zero to maximum flow capacity (247 Nm³/h – 8,722 scfh)
- Highest supply guarantee by redundant design of all relevant safety components
- High process safety by self monitoring of analysers with additional monitoring via an independent control unit
- Independent of pressure fluctuations in the gas supply by integrated pressure equalising system (BAM tested dome pressure regulators)
- Gas supply safety by inlet pressure monitoring
- Permanent availability by instant adjustment to fluctuating withdrawal
- In case of failure, automatic switch to a parallel system
- Integrated data log for full documentation
- Easy integration via USB or Ethernet connection
- Different models and outputs available

### OPTIONAL
- Heater
- Fully automatic calibration
The MED-MG is equipped with special parallel working control components to ensure highest supply safety. If one of those components detects a discrepancy and triggers an alarm, the solenoid valves at the gas mixer outlet and the receiver outlet close and the synthetic air supply gets interrupted. In this case, the systems send a signal which can activate a parallel supply system.

**GasFlow Monitoring**

The sample gas flow is continuously monitored. In case the flow falls short of the pre-defined threshold, an alarm is triggered.

**Inlet Pressure Monitoring**

The inlet pressures of oxygen and nitrogen are monitored by pressure indicators. Inlet pressures over or below the threshold limits are displayed on the alarm module and the control units and trigger an alarm.

**Pressure Equalising System**

The gas inlet pressures of nitrogen and oxygen are reduced to the operation pressure by means of an integrated pressure equalising system. In case of a supply pressure drop in the oxygen line, the nitrogen supply pressure will also be automatically reduced. This ensures a constant ratio in the gas mixtures. If the oxygen supply is interrupted, the nitrogen supply is also automatically stopped.

**GASCONTROL 50**

The GASCONTROL 50 works with a powerful processor and is the electronic control center of the MED-MG. The 4.3" colour TFT touchscreen allows intuitive operation – of course password protected. The user always has an overview on the current status of the mixing system and gets informed in case of an alarm. All parameters can be set quickly and comfortably, e.g. individual limits or calibration functions.

**Safety Features**

Hygienic, safe, cost-effective – synthetic air supply by WITT for medical applications

Certified and approved as medical device class IIb
CE marked according to Directive 93/42/EEC
INSTALLATION EXAMPLE REFERRING TO DIN EN ISO 7396-1:2007 CHAPTER 5.5.3

CERTIFIED SAFETY

Supply system 1 (Scope of delivery WITT MED-MG)

1. Synthetic air mixer
2. Receiver
3. Integrated double oxygen analysis
4. Solenoid valve
5. Nitrogen supply
6. Oxygen supply
7. Compressor or cylinder bundle
8. External oxygen analysis
9. Central switch unit

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Supply system 2 (Scope of delivery WITT MED-MG)

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Supply system 3

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Gas flow
Data flow

Certified and approved as medical device class IIb
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OUR PRODUCT RANGE

GAS CONTROL EQUIPMENT
- Gas mixing systems
- Gas metering systems
- Gas analysers
- Leak detection systems
- Gas pressure vessels
- Engineering of customised systems

GAS SAFETY EQUIPMENT
- Flashback arrestors
- Non-return valves / check valves
- Quick couplers
- Safety relief valves
- Stainless steel devices
- Gas filters
- Pressure regulators
- Outlet points
- Lance holders
- Ball valves
- Automatic hose reels
- Test equipment
- Accessories
- Customised safety equipment

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