

# ARCUS

The electronic anaesthesia unit  
for safe and easy usage



The portable, full electronic stand alone inhalation anaesthesia unit **ARCUS** offers with the electronic gas mixer EGAMIX a compact anaesthesia unit according to the latest technology. Its wall version is used for the induction. Developed for mobile use and integrated in a mobile transport case the **ARCUS-CP** offers fast readiness for use as well as space for vaporizer and accessories during the transport.

The **ARCUS-CPT** forms a durable case system from the single devices anaesthesia unit **ARCUS-CP**, **Multi-Monitor MM1** and the cylinder supply. For the operation it can be put up to table height. For transport it is assembled as a mobile trolley. Everything is locked mechanically with one another. Sufficient space for accessories and pluggable sensors make the **ARCUS-CPT** the ideal transportable anaesthesia unit. Combined with a dust- and water-protected ultra-robust notebook as a large 10,4" supervising monitor for anaesthesia logging, activity recording and service documentation it fulfils the expectations of a mobile anaesthesia working place.

Compared to the conventional mechanical rotameter its considerable simplification of work is done by full automatic electronic control and supervision of the adjusted parameters. You just enter the required total fresh gas flow as well as the oxygen concentration and the dosage is automatically set by the electronic gas mixer. A minimum of routine work is left to the anaesthetist by automatic dosage and self-supervision of the anaesthesia unit **ARCUS**.

**Functions:**

- electronic supervision of the adjusted gas dosage
- self testing and control of the single components in 'standby' mode
- electronic supervision of the pressure gas supply with display and alarm functions in case of falling below the pressure limit
- compensation of variations in pressure supply
- storage of default parameters
- big and clearly arranged design with graphic LCD display with backlight
- wide adjustment range from 200 ml to 11 litres
- precise resolution and display of the scale in 20 ml steps
- automatic switching over of the scale at higher flow values
- automatic dosage of the fresh gas for low flow operation
- vaporizer holding with interlock system
- possibility to use different vaporizers (Halothane, Enflurane, Isoflurane, Sevoflurane, Desflurane)
- compact circuit system, CO<sub>2</sub> absorber canister is exchangeable during operation
- central gas supply or optional gas bottle supply
- available as wall version for the induction or as stand alone version for mobile use integrated in a transport case
- RS232 interface for anaesthesia documentation
- operation is guaranteed by an internal rechargeable battery for at least 15 minutes in case of power supply failure

**Security system:**

- electronic O<sub>2</sub>-deficiency detection
- electronic N<sub>2</sub>O-blockage
- oxygen emergency dosage in case of power supply failure
- automatic check for correct covering of the single gas supply channels every time the device is switched on

**Options:**

- extension to ARCUS wall version for mounting at standard rail
- Ventilator MAV3 or MAV4 with switchable circuit system for automatic ventilation
- ARCUS-CP (ARCUS integrated in a substantially built transport case with small or big trolley)
- ARCUS-CPT (ARCUS integrated in a transport case with big trolley and transport case for cylinder supply)
- ARCUS-TIVA for intravenous anaesthesia: with infusion stand for fastening of the syringe pumps
- extension to external power supply inlet 12-24V
- MM1-Transport: Multi-Monitor MM1 integrated in a transport case with shelf for accessories

**Technical Specifications:**

Gas supply:	AIR, O <sub>2</sub> , N <sub>2</sub> O Pressure: 3.0 - 5.5 bar Flow: min. 11 L/min	O <sub>2</sub> -emergency dosage:	min. 4 L/min O <sub>2</sub> Flow in case of total EGAMIX failure
Fresh gas:	O <sub>2</sub> /AIR or O <sub>2</sub> /N <sub>2</sub> O Flow (standby): 0 L/min Flow (operation): 0.2 - 11 L/min Resolution Flow: 0.1 L/min Accuracy Flow: ± 10 % rel.	Gas supply failure:	Failure AIR: 100 % O <sub>2</sub> Failure N <sub>2</sub> O: 100 % O <sub>2</sub> Failure O <sub>2</sub> : 100 % AIR
O <sub>2</sub> -concentration:	25 - 100% Resolution: 1 Vol% Accuracy: ± 10% rel.	Power supply:	230V AC, 50/60 Hz
Parameters:	Total fresh gas flow O <sub>2</sub> -concentration Gas blend (O <sub>2</sub> /AIR or O <sub>2</sub> /N <sub>2</sub> O)	Dimensions (WxDxH):	ARCUS: 390 x 260 x 280 mm ARCUS-CP (incl. case): 480 x 390 x 380 mm MM1-Transport (incl. case): 480 x 390 x 240 mm Case for cylinder supply: 480 x 480 x 180 mm Trolley for ARCUS-CPT: 500 x 600 x 1100 mm
O <sub>2</sub> -Flush:	min. 35 L/min	Weight:	ARCUS: 15 kg ARCUS-CP (incl. case): 25 kg MM1-Transport (incl. case): 16 kg Case for cylinder supply: 8.5 kg Trolley for ARCUS-CPT: 6 kg
Security system:	O <sub>2</sub> -concentration always ≥ 25% O <sub>2</sub> -Flow always ≥ 0.2 L/min N <sub>2</sub> O is blocked, when the O <sub>2</sub> -concentration falls below 20%		

All data are subject of change without further notice.