

ETC HUMEDIC
MOTION TECHNOLOGIES



THE HEART OF MOTION

Product Overview
Medical Technology

About ETO GRUPPE

Motion is at the heart of every machine. With the power of innovation and passion we develop and produce electromagnetic actuation components, sensors, electronics and software for the regulation and control of highly dynamic processes in vehicles, medical technology equipment or machinery for food production.

Around the world, 2,500 employees are dedicated to the success of our customers and play a vital part in our fast-growing company group. Founded by Lake Constance/Germany in 1948, ETO GRUPPE has been part of the foundation "Christa und Hermann Laur-Stiftung" since 1968 which has ensured ETO GRUPPE's continuance to date.

Our Vision

As a company, we have specialized in making mobility, vehicles, equipment, devices, medical technology and food production more secure, efficient and environmentally friendly, in connecting the above and in processing data in an intelligent way.

Groundbreaking Projects

Connected, intelligent and secure sensors and actuators are trailblazers for autonomous driving, smart factories and intelligent services. For instance, ETO GRUPPE is part of a groundbreaking project called ALFRIED funded by the German Federal Ministry of Transport and Digital Infrastructure, which is focused on making connected and automated driving a reality. We are aiming to make road traffic more secure by developing sensors for intelligent road marker posts so that non-connected vehicles may also be provided with traffic information.



Product Overview

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Solenoid Valve for Medical Technology



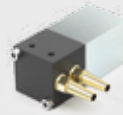
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Vacuum Valve



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Proportional Pneumatic Valve



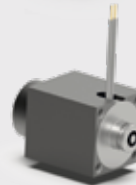
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Solenoid Valve for Medical Technology



APPLICATION

- Solenoid valve with media separation for dialysis machines

CUSTOMER BENEFITS

- Low energy consumption
- Low surface temperature

TECHNICAL DATA

- Voltage: 12 - 24 V DC
- Power: 9.6 W / 1.5 W
- Flow: 3.5 l/min
- Duty cycle: 100 %
- Valve diameter: 3 mm
- 2/2 Valve normal closed
- Media separated
- Ambient temperature: 0 - 80 °C

FEATURES

- Valve model NC
- Perfusion in both directions possible
- Proven durability
- Flexible mounting

Vacuum Valve



APPLICATION

- Patient monitoring
- Skin sensor fixation by vacuum

CUSTOMER BENEFITS

- Simple design
- Easy to integrate

TECHNICAL DATA

- Voltage: 6 - 48 V DC
- Nominal power: 6.5 W
- Duty cycle: 100 %
- Valve diameter: 2 mm
- Normal closed or normal open
- Working pressure: 0 - 1 bar
- Ambient temperature: 10 - 50 °C

FEATURES

- Fast switching
- Compact design

Proportional Pneumatic Valve



APPLICATION

- Dental drilling machine
- Control valve for air flow

CUSTOMER BENEFITS

- Small size
- Flexible hose adaption

TECHNICAL DATA

- Voltage: 12 - 48 V DC
- Valve diameter: 2.7 mm
- 2/2 Valve normal closed
- System pressure: 6.5 bar
- Ambient temperature: 0 - 80 °C

FEATURES

- Proportional characteristics
- Low hysteresis
- Easy adaption to various hose sizes

Hose Pinch Valve



APPLICATION

- Dialysis machines
- Laboratory equipment

CUSTOMER BENEFITS

- Low energy consumption
- Low surface temperature
- Small size
- High force
- Fail-safe closed

TECHNICAL DATA

- Voltage: 12 - 24 V DC
- Electrical power: 30 W / 3 W
- Clamp force: up to 45 N
- Duty cycle: 100 %
- Hose diameter: up to 6 mm
- Normal closed or normal open
- Ambient temperature: 0 - 80 °C

FEATURES

- Proven durability
- Adaption to various hose diameter possible

Hydraulic Valve



APPLICATION

- Operating tables
- Dentist chairs

CUSTOMER BENEFITS

- Compact design
- Applications submerged in oil possible

TECHNICAL DATA

- Voltage: 12 - 48 V DC
- Force: 20 - 40 N
- Duty cycle: 100 %
- Working pressure: 250 bar
- Ambient temperature: -25 - 40 °C

FEATURES

- On/off or proportional characteristics
- various connectors possible

Air Pressure Sensor



APPLICATION

- Dialysis machines
- Respirators

CUSTOMER BENEFITS

- Ready-for-use output signal
- Wide temperature range
- High long-term stability
- High pressure overload
- Small size

TECHNICAL DATA

- Supply voltage: 5 V or 8 - 32 V
- Nominal pressure: 1 - 12 bar
- Pressure reference relative
- Burst pressure: 2x nominal pressure
- Output signal analogue
- Precision (-20 - 100 °C): $\leq \pm 1.0 \%$
- Operating temperature: -40 - 125 °C
- Protection class: IP00
- Electrical connection solder contacts or press fit for the circuit board

FEATURES

- Easy integration in circuit boards
- Various output signals

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