

**Professional answers
to your questions.**

**Reliable:
Expert phytron advice.**

Besides our technology, take advantage of our excellent full service: the targeted approach of our specialists assures the optimum solution for all applications. Be it for stepper motors, servo motors or an intelligent combination of the two. The know-how of our experts consistently guarantees the fine tuning of all components. Even unconventional challenges can thus be surmounted with superior and far-sighted solutions. Discover for yourself the entire spectrum of consultancy expertise offered by phytron:

- **Engineering support**
Extensive support at the concept stage and in the selection of motors and controllers
- **Applications**
Tailored solutions and commissioning of motors, electronics and software
- **User software**
Customising of standard software to the respective requirements
- **On-site troubleshooting**
No fault escapes us
- **Hotline**
Professional instant support per telephone
- **After sales service**
Extensive assistance on commissioning, repairs and supplying spare parts



**Driven by experience –
Fired by innovation**



Development, production and sale of stepper motors, synchronous servo motors, power stages and controllers.

Fully rounded solutions for many applications, such as handling systems, labelling and packaging machines, machine and appliance construction, food and beverage industry or medical engineering.

From standard applications to applications featuring extreme environmental conditions: in vacuums, at very high or extremely low temperatures, in clean room or even in radiation-contaminated areas.

phytron

customized solutions
in motion

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**Precision,
for great moving.**

**Stepper motors
with strong qualities**



customized solutions
in motion

Exact solutions to match every challenge.



Tailored: Uncompromising performance.

Opt for phytron stepper motors and enjoy the benefits of motional precision. Regardless of the requirements demanded, prevailing ambient conditions and finer points that have to be taken into consideration. Our tailored drive solutions offer outstanding qualities that reveal impressive strengths even in extreme conditions:

- Maximum speed for immense efficiency
- Top precision for reliability into the nanometre range
- Compact designs for minimum space requirements
- Minimum heat generation for highly sensitive implementation areas
- Sturdy construction for heavy continuous implementation
- Constant quiet running for minimum noise emission

Customised special versions by phytron satisfy all customer requirements – from modified versions of the standard design to new constructions and development. Our team of highly qualified sales engineers will be happy to advise you.



Impressive: Performance that sets new standards.

phytron stepper motors (ZSS/ZSH) make a powerful impression with every move they make, not to mention quiet running with minimum noise emission. The proven series of 2-phase hybrid stepper motors feature a step count of 200 as standard. For demanding automation processes performed with exemplary efficiency.

- Depending on size also with step counts of 8, 24, 56, 72 or 500
- Holding torques of 3 mNm to 17 Nm with a 19 to 108 mm diameter
- Optional: gears, motor brake, encoder, 2nd shaft end, heat sink, clutch



phytron food stepper motors (FSS/FSH) give drive solutions an appetising touch. It goes without saying that our stepper motors used in food and beverage production satisfy strict requirements in terms of hygiene. Simply perfect for processing and packaging delicious products.

- Protection class to IP68
- Optional: gears



Outstanding: Solutions for extraordinary performances.

phytron vacuum stepper motors (VSS/VSH) are the perfected product of over 30 years of experience in space technology. The 2-phase hybrid stepper motors were specially designed for vacuum applications up to 10^{-11} hPa. Ideal for exceptional environmental conditions such as high and low temperatures or extreme radiation intensity.

- For clean room production, vacuum chambers, climate cabinets or cryo facilities.
- Suitable for ambient temperatures from -270 °C to $+300$ °C
- For use in space
- Optional: gears and clutches, temperature sensors



phytron harsh environment stepper motors (HSS/HSB) display all the decisive qualities for efficient implementation in ambient temperatures from -40 °C to $+150$ °C. Once its internal cooling system is activated, this highly specialised drive solution will supply an ice-cool performance in continuous operation even up to $+180$ °C.

- With integrated cooling fins
- Protection class IP68
- Optional: gears
- Optional internal cooling system



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