

## 1-STEP-DRIVE-5A-48V

### The high-precision PLC stepper motor module

The Phytron 1-STEP-DRIVE-5A-48V module is a high precision stepper motor control with an integrated power output stage for reliable operation in the SIMATIC® ET 200®S distributed periphery system. The 1-STEP-DRIVE-5A-48V successfully completed the system compliance test performed by Siemens.

The integrated power output stage is made for operating with a 2-phase stepper motor up to  $5A_{PEAK}$  with a supply voltage from 24 to 48V<sub>DC</sub>. This versatile control is capable of the same positioning functions as the SIMATIC®-Module ET 200®S 1Step: amongst others are relative and absolute positioning, movement to a reference point and running infinitely rotating axes. The power stage technology is deployed in combination with the patented Phytron chopper design to assure minimal heat loss at all times in the module itself as well as in the motor. The high-precision current control by the 1-STEP-DRIVE-5A-48V provides a step resolution up to 1/512 step – a precondition for extremely smooth rotation and high-precision positioning (102,400 positions per rotation). An absolute positioning error of only  $\sim 0.0015^\circ$  can be achieved in micro step operation (1/512 step) by adding an encoder and counter module.

The short-circuit-proof and overload-protected 1-STEP-DRIVE-5A-48V module can be run and parameterised with an ET 200®S CPU as well as with all IM-151 header modules (PROFIBUS and PROFINET compatible). The module can be programmed and parameterised with STEP®7 if either the central interface or the head module supports STEP®7. The technology parameters can be set while running via the bus. The flexible run current delay time (from 1 to 1000ms) harmonises consistent positioning and heat loss – even in stop start operation. HSP and GSD data are provided via [www.phytron.eu/1-step-drive](http://www.phytron.eu/1-step-drive).

The 1-STEP-DRIVE-5A-48V module supplements the SIMATIC® ET 200®S in the field of high-precision applications for stepper motors in: control feed devices, printing, paper and textile machines, in building automation or on X-Y tables.

SIMATIC®, ET 200® and STEP®7 are registered trademarks of the SIEMENS AG.

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