# Stepper Controller RS-422 / 24 V / 20 mA

**WAGO®**



**Delivered without miniature WSB markers**

The 750-670 module is an intelligent stepper controller used to control different drive power sections with pulse/direction interface or incremental encoder input.

RS-422 and 24V or 20mA interfaces can be used.

Due to the high output frequency, stepper output stages with smooth microstepping resolution can be used.

In addition, this module can also be used as a high-precision frequency or pulse width modulator.

Two configurable inputs for Start/Stop, limit switches, reference cams, Jog/Tip, etc., are evaluated directly and without any further delay by the internal software.

Versatile functions, such as positioning with different acceleration slopes, command tables, camshaft controller, auto referencing and other event-dependent properties provide this controller with a wide spectrum of possible uses The programmer's interface is the same for all WAGO stepper controller modules.

Additional operating modes:
- Pulse width modulation
- Frequency Generator
- Single-shot mode

| Description | Item No. | Pack. Unit |
|---|---|---|
| **Stepper controller RS-422 / 24 V / 20 mA** | **750-670** | 1 |

| Accessories | Item No. | Pack. Unit |
|---|---|---|
| **Miniature WSB Quick marking system** | | |
| plain | **248-501** | 5 |
| with marking | see Section 11 | |

## Approvals

| Conformity marking | $C\epsilon$ |
|---|---|
| ®ᵤ UL 508 | |
| ®ᵤ ANSI/ISA 12.12.01 | Class I, Div. 2, Grp. ABCD, T4 |
| ⓔ TÜV 07 ATEX 554086 X | I M2 Ex d I Mb, |
| | II 3 G Ex nA IIC T4 Gc, |
| | II 3 D Ex tc IIIC T135°C Dc |
| IECEx TUN 09.0001 X | Ex d I Mb, |
| | Ex nA IIC T4 Gc, |
| | Ex tc IIIC T135°C Dc |

| Technical Data | |
|---|---|
| Outputs | |
| No. of outputs | 1 channel (2 differential outputs A1, A2, B1, B2) |
| Signal voltage | 5 V DC internal, 5 V ... 24 V DC external |
| Type of load | RS 422, TTL, optocoupler |
| Output current (max.) | 30 mA short-circuit protected |
| Output frequency | 200 µHz ... 500 kHz |
| Pulse duty factor | 50 % (in stepper motor mode) |
| Inputs | |
| Number of inputs | 2 (DI 1, DI 2) |
| Signal voltage (0) | -3 V ... +5 V DC |
| Signal voltage (1) | 15 V ... 30 V DC |
| Input filter | 100 µs, software filter can be installed |
| Input current (typ.) | 2.8 mA |
| Module | |
| Operation modes | Individual positioning, reference run, jog, tip, instruction tables, PWM |
| Functions | Positioning (absolute/relative), flying setpoint change, rotary axis, etc. |
| Resolution | |
| Distance | 23 bits + sign bit |
| Speed | 15 bits + 16 bit prescaler |
| Acceleration | 15 bits + 16 bit prescaler |
| Voltage via power jumper contacts | 24 V DC (-25 % ... +30 %) |
| Current consumption typ. (KBUS) | 98 mA |
| Isolation | 500 V system/supply |
| Internal bit width | 12 byte inputs/outputs |
| Wire connection | CAGE CLAMP® |
| Cross sections | 0.08 mm² ... 2.5 mm² / AWG 28 ... 14 |
| Strip lengths | 8 ... 9 mm / 0.33 in |
| Width | 12 mm |
| Weight | 49.6 g |
| EMC immunity of interference | acc. to EN 61000-6-2 |
| EMC emission of interference | acc. to EN 61000-6-3 |