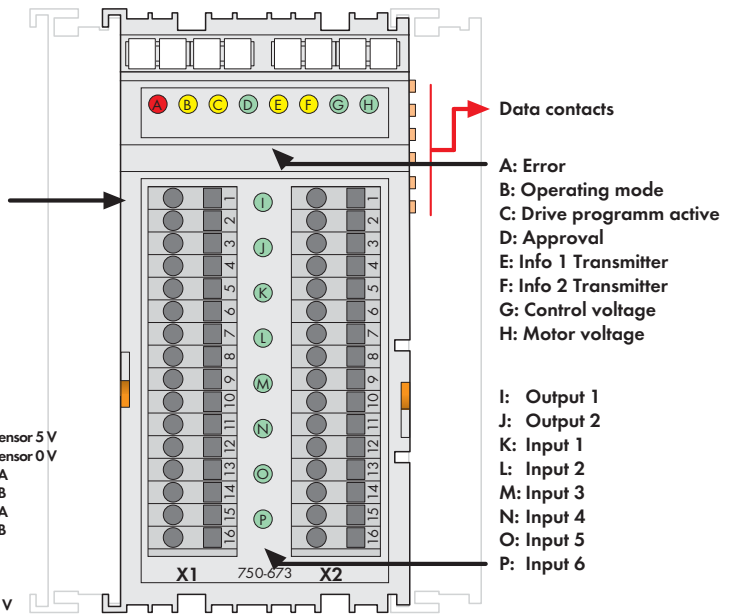




- X1**
- 1: Output DO 1+
  - 2: Output DO 0 V
  - 3: Output DO 2+
  - 4: Output DO 0 V
  - 5: Input DI 1+
  - 6: Input DI 1-
  - 7: Input DI 2+
  - 8: Input DI 2-
  - 9: Input DI 3+
  - 10: Input DI 3-
  - 11: Input DI 4+
  - 12: Input DI 4-
  - 13: Input DI 5+
  - 14: Input DI 5-
  - 15: Input DI 6+
  - 16: Input DI 6-

- X2**
- 1: Transmitter A
  - 2: Transmitter /A
  - 3: Transmitter B
  - 4: Transmitter /B
  - 5: Transmitter Z
  - 6: Transmitter /Z
  - 7: Operating voltage of sensor 5 V
  - 8: Operating voltage of sensor 0 V
  - 9: Motor winding M\_1A
  - 10: Motor winding M\_1B
  - 11: Motor winding M\_2A
  - 12: Motor winding M\_2B
  - 13: Motor voltage UDC
  - 14: Motor voltage 0 V
  - 15: Control voltage 0 V
  - 16: Control voltage +24 V



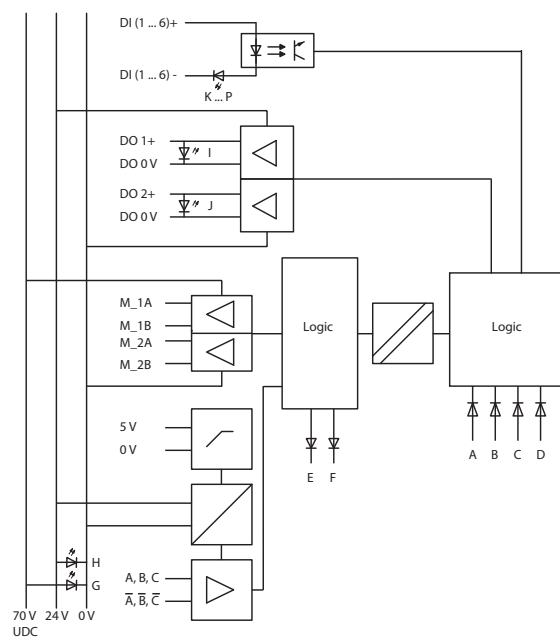
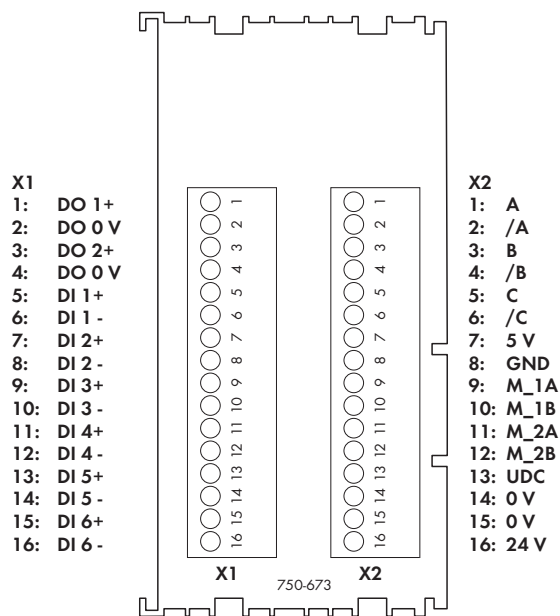
Delivered without miniature WSB markers

The 750-673 is an intelligent servo stepper controller with on-board power driver and incremental encoder evaluation to control 2-phase stepper motors up to 70V/7.5A. The 64 times microstepping prevents step losses due to resonance in the acceleration phases and reduces wear on the mechanical parts. The controller features vector control that, together with the incremental encoder, contributes to an efficient and dynamic rotation speed characteristic. Six configurable inputs for start/stop, end-stop, reference, jog/tip, etc., can be directly processed by the internal software without delay. Two outputs can be linked with internal functions or used freely.

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.

Description	Item No.	Pack. Unit
Servo Stepper Controller 55 V / 7.5 A	750-673	1
<b>Accessories</b>		
<b>Miniature WSB Quick marking system</b>		
plain	248-501	5
with marking	see Section 11	
<b>Approvals</b>		
Conformity marking	CE	
Korea Certification	KC	

Technical Data	
Power supply	<b>Control voltage:</b> 24 V DC (-25 % ... +30 %), Closed current 120 mA + 2 x 0.5 A (DO1, DO2, load-dependent) + approx. 100 mA (encoder); <b>Motor voltage:</b> Nominal value 55 V DC, Absolute upper limit: 71.5 V, Absolute lower limit: 18 V, Closed current typ. = 5 mA, Protection via external fuse 5 A
Protection	<b>Short circuit monitoring of motor connections:</b> Winding short circuit and short circuit to 0 V and 24 V; <b>24 V supply:</b> Reverse voltage protection; <b>Motor supply:</b> Reverse voltage protection via external fuse
Isolation	500 V system/supply
Voltage supply (internal)	via internal data bus and control voltage
Current consumption typ. (internal)	70 mA
Internal bit width	12-byte inputs/outputs
Configuration	via PLC and WAGO-I/O-CHECK (configuration tool)



### Technical Data

Inputs	
Signal voltage (0)	-3 V ... +5 V DC
Signal voltage (1)	15 V ... 30 V DC
	Electrical isolation from each other and from all other voltage potentials on the module
Input filter	100 $\mu$ s, software filter can be installed
Input current (typ.)	2.8 mA
Outputs	
No. of outputs	2 (DO1, DO2)
Output current	0.5 A, short-circuit protected
Max. switching frequency	5 Hz, inductive load to IEC947-5-1, DC13
Type of load	Resistive load, inductive load (max. 2H), lamps
Function	
	Inputs (preset):
	DI 1: Drive stop,
	DI 2: Reference input,
	DI 3: Jog switch in positive direction,
	DI 4: Jog switch in negative direction,
	DI 5: Limit switch in positive direction,
	DI 6: Limit switch in negative direction,
	Outputs (preset):
	DO 1: Target reached,
	DO 2: Error,
	Inputs and outputs can be freely reconfigured.
Motor connection	
No. of outputs	1 stepper motor (2 phases)
Output current (max.)	2 x 7.5 A temporary; derating starting at 50 °C; 2 x 5.0 A nominal current; derating starting at 50 °C
Max. stepper frequency	7812 Hz full step
Diagnostics	Short circuit or ground fault overcurrent, overtemperature, supply voltage monitoring, motor wire break, wrong rotational direction incremental encoder -
Resolution	64 microsteps per full step
Cable length	30 m shielded cable

### Technical Data

Incremental encoder	
Sensor connection	A, /A, B, /B, C, /C
Signal voltage	Compatible with RS-485/RS-422, common GND with motor voltage and control voltage
Sensor frequency	1 MHz
Terminating resistor	internal 120 $\Omega$
Sensor supply	5 V DC, 300 mA short-circuit protected
Quadrature decoder	4-fold report
Counter	32 bits binary

### General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> / AWG 28 ... 14 AWG 12 /14: THHN, THWN
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	51 x 70 x 100 Height from upper-edge of DIN 35 rail
Weight	56 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27/29
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3