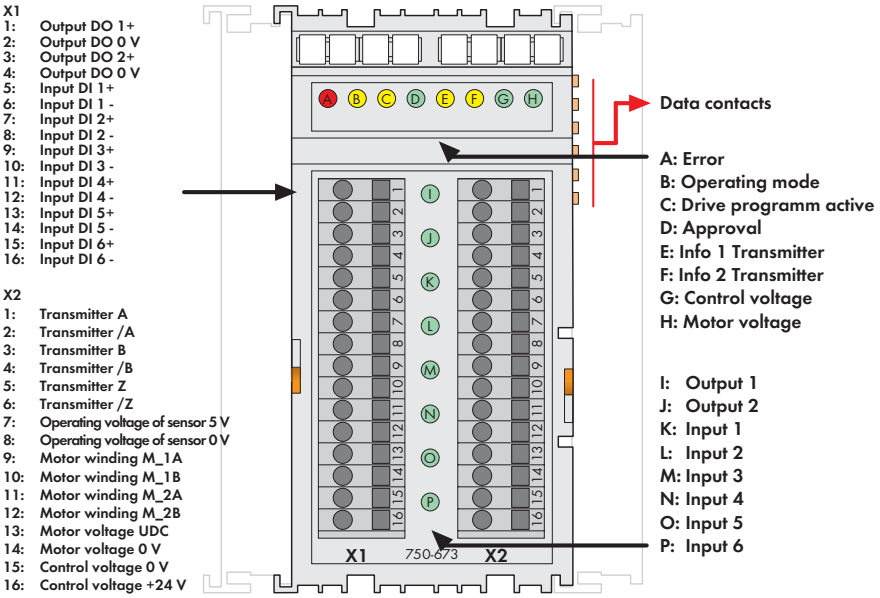
750-673

Servo Stepper Controller 55 V / 7.5 A 6IN, 2OUT



TThe 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 prevents excessive wear on mechanical parts. The controller features vector control that, together with the incremental encoder, contributes to a dynamic rotational speed characteristic with high efficiency. 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.

Flexible functions such as positioning with various acceleration ramps, command tables, camshaft, auto reference and other event-driven characteristics suit a wide range of applications. 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 6IN, 2OUT	**750-673**	1

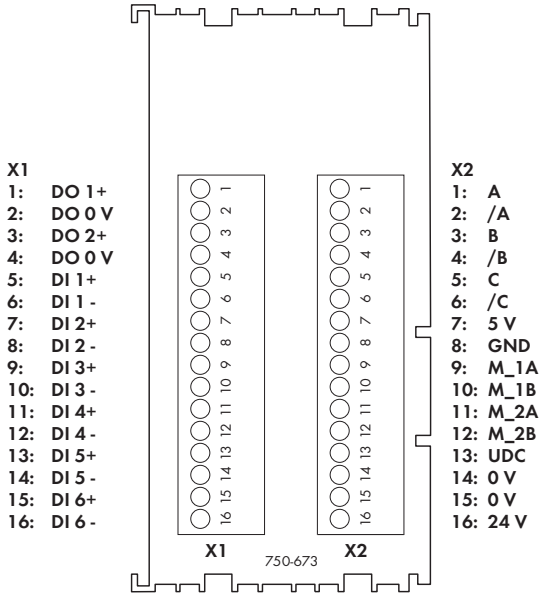
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see pages 352 ... 353	

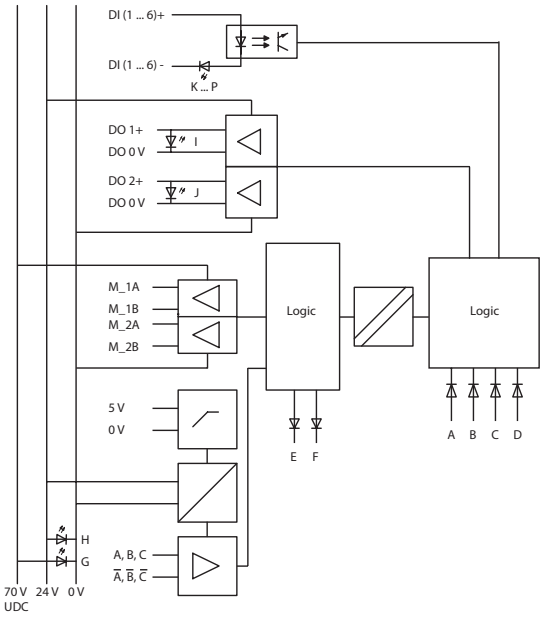
Approvals

Conformity marking	CE

Technical Data

Voltage supply	**Control voltage**:
	24 V DC (-25 % ... +30 %),
	Closed current 120 mA + 2 x 0.5 A (DO1,
	DO2, load-dependent) + approx. 100 mA
	(encoder);
	Motor voltage:
	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	Short circuit monitoring of motor
	connections: Winding short circuit and
	short circuit to 0 V and 24 V;
	24 V supply: Reverse voltage protection;
	Motor supply: 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 µs, 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
Switching frequency (max.)	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 -
	motor
Resolution	64 microsteps per full step

Technical Data	
Cable length	30 m
	shielded cable
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 ?
Sensor supply	5 V DC, 300 mA short-circuit protected
Quadrature decoder	4-fold report
Counter	32 bits binary
Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 14
	AWG 12 /14: THHN, THWN
Stripped 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 CE-Immunity to interference	acc. to EN 61000-6-2 (2005)
EMC CE-Emission of interference	acc. to EN 61000-6-3 (2007)