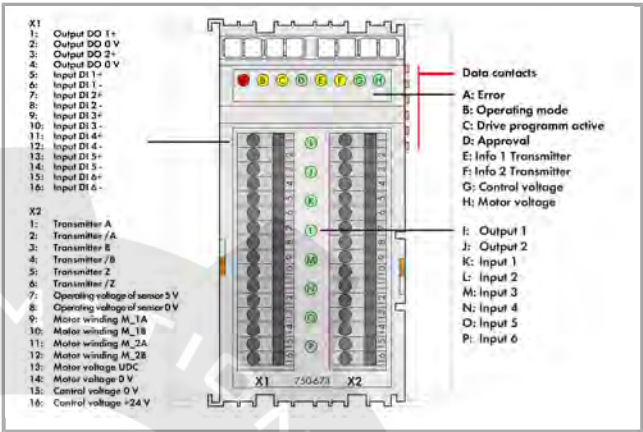


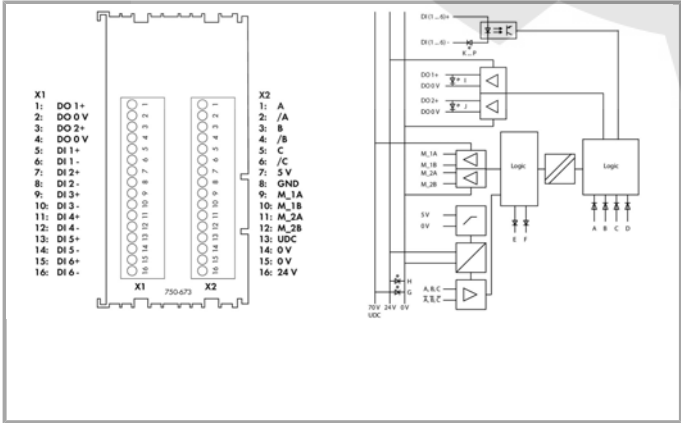
Data sheet | Item number: 750-673
Servo Stepper Controller; 55 VDC; 7.5 A

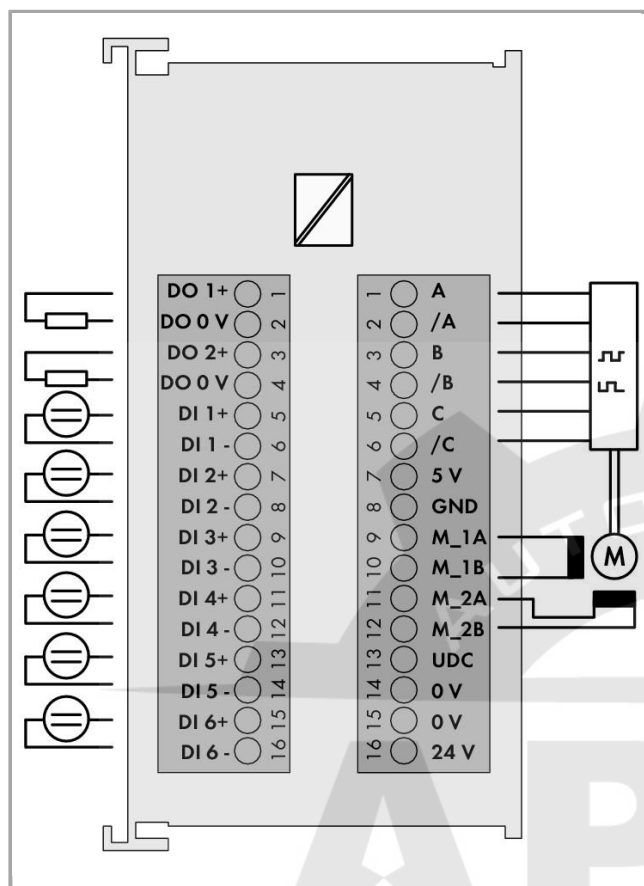


750-673



RoHS Compliant





Number of digital outputs	2
No. of outputs	1 stepper motor (2 phases)

Counter depth	32 Bit
Sensor connection	A, /A, B, /B, C, /C
Sensor frequency	1 MHz
Sensor supply	5 V DC, 300 mA short-circuit protected
Quadrature decoder	4-fold report
Input filter	100 µs, software filter can be installed
Input current typ.	2.8 mA
Output current per channel	0.5 A
Output current	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
Motor current	2 x 7.5 A temporary; derating starting at 50 °C; 2 x 5.0 A nominal current; derating starting at 50 °C
Output voltage	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
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Signal voltage	Compatible with RS-485/RS-422, common GND with motor voltage and control voltage
Diagnostics	Overcurrent, short circuit or ground fault, overtemperature, supply voltage monitoring, motor wire break, wrong rotational direction incremental encoder - motor
Resolution	15 bits + 16 bit prescaler; 64 microsteps per full step
Resolution Stepper	23 bits + sign bit
Switching frequency max.	5 Hz
Load type of the switching frequency	inductive load to IEC947-5-1, DC13
Schrittfrequenz, Vollschrift max	7812 Hz
Bit width	12 byte inputs/outputs
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
Terminating resistor	internal 120 Ω
Functions	Positioning, sin ² -shaped ramps, setpoint change on the fly, torque control
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	70 mA
System and sensor supply voltage	)
Isolation	500 V system/supply

Connection data

Connection technology: In-/Outputs	32 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Anschlussanforderung zulässige Leitungslänge	30 m
Connection requirement (permissible cable type)	Motor connection: shielded
Note (conductor cross-section)	14 AWG: THHN, THWN

Geometrical Data

Width	48 mm / 1.89 inch
Height	69.8 mm / 2.748 inch
Height from upper-edge of DIN-35 rail	62.6 mm / 2.465 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
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Material Data

Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Fire load	0 MJ
Weight	183 g
Conformity marking	1

Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3

Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (Remote I/O)
Country of origin	DE
GTIN	4045454957193
Customs Tariff No.	85371091990

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- MCM750

Compatible products

shield connection

	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor	790-108
	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	790-116
	Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm	790-124
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	790-140
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	790-208
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm	790-216



Item no.: 790-220

790-220

Shield clamping saddle; 30 mm wide; 6 ... 20 mm

tools



Item no.: 210-719

210-719

Operating tool with partially insulated shaft; Type 1, blade (2.5 x 0.4) mm

system box



Item no.: 850-804

850-804

IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip



Item no.: 850-804/000-001

850-804

IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip

/000-001



Item no.: 850-805

850-805

IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip



Item no.: 850-814/002-000

850-814

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate

/002-000



Item no.: 850-815/002-000

850-815

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate

/002-000



Item no.: 850-816/002-000

850-816

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate

/002-000



Item no.: 850-817/002-000

850-817

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

/002-000



Item no.: 850-825

850-825

IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



Item no.: 850-826

850-826

IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item no.: 850-826/002-000

850-826

IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

/002-000



Item no.: 850-827

850-827

IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item no.: 850-827/002-000

850-827

IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

/002-000



Item no.: 850-828

850-828

IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item no.: 850-828/002-000

850-828

IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

/002-000

**Item no.: 850-834**

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

850-834

**Item no.: 850-835**

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

850-835

**Item no.: 850-836**

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

850-836

Marking accessories**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-002

2009-145

**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-005

2009-145

**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-006

2009-145

**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-007

2009-145

**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-012

2009-145

**Item no.: 2009-145/000-023**

Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

2009-145

**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-024

2009-145

**Item no.: 248-501**

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

248-501

**Item no.: 248-501/000-002**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-002

248-501

**Item no.: 248-501/000-005**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-005

248-501

**Item no.: 248-501/000-006**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-006

248-501

**Item no.: 248-501/000-007**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-007

248-501

**Item no.: 248-501/000-012**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-012

248-501

**Item no.: 248-501/000-017**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-017

248-501

**Item no.: 248-501/000-023**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-023

248-501

**Item no.: 248-501/000-024**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-024

248-501

**Item no.: 750-103**

Group marker carrier

750-103

**Item no.: 750-106**

Group marker carrier

750-106

Carrier rail**Item no.: 210-112**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm

210-112

**Item no.: 210-113**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715

210-113

**Item no.: 210-114**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715

210-114

**Item no.: 210-115**

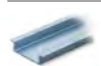
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm

210-115

**Item no.: 210-118**

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-118

**Item no.: 210-196**

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715

210-196

**Item no.: 210-197**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

210-197

**Item no.: 210-198**

Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-198

**Item no.: 210-504**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

210-504

**Item no.: 210-505**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715

210-505

**Item no.: 210-506**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715

210-506



Item no.: 210-508

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

210-508

Downloads

Documentation

Manual

Servo stepper controller 70 V / 7.5 A 6IN, 2OUT	V 1.0.3	pdf 3.0 MB	Download
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Bid Text

750-673		doc 34.8 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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System Description

Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
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Design Notes Basic conditions and recommendations for higher operational safety	V 2.0.0	pdf 1.5 MB	Download
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750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
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Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
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Application Notes

Application Note CoDeSys 2.3

How to use Matlab code in a CODESYS project (a500710) An example showing how to use matlab code in a CODESYS program for controlling an inverted pendulum.	V1.0.0	zip 2.6 MB	Download
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Application note SIEMENS

Stepper modules 750-670, -671, -672 and -673 with Siemens Step 7 (a114903) Function blocks for the stepper modules 750-670, 750-671, 750-672 and 750-673 with a Siemens plc using Simatic Step 7.	V1.1.0	zip 8.9 MB	Download
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Libraries

Library

Function blocks for the stepper modules 750-670,750-671,750-672,750-673	V1.0.5	zip	Download
Function blocks for the stepper modules 750-670,750-671,750-672,750-673.		601.7 kB	

CAD/CAE - Smart Data

CAD data

3D Download 750-673	URL	Download
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Device Files

Device Driver

WAGO USB Service Cable Driver / 750 and 857 Series	6.5.3.0	zip	Download
759-923	Sep 10, 2014	4.8 MB	

Product family

750/753 Series I/O-System
[Learn more about the product family.](#)

[Show all products from the family](#)

Subject to changes.