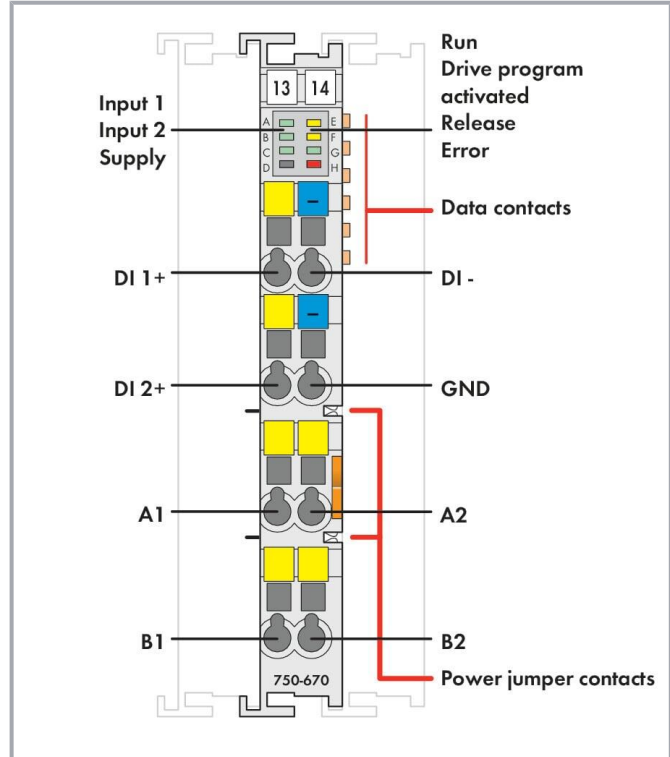


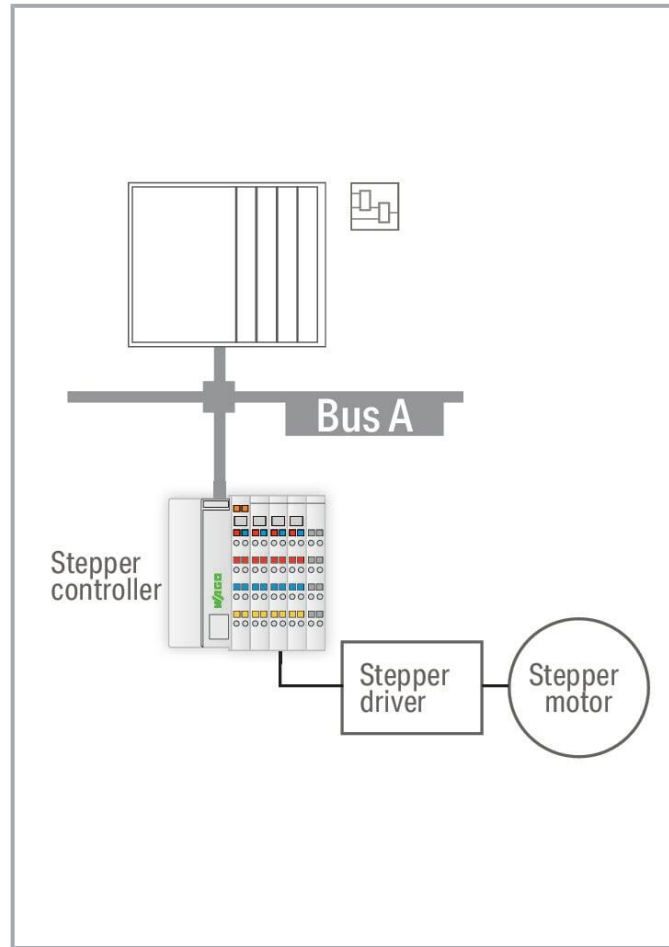
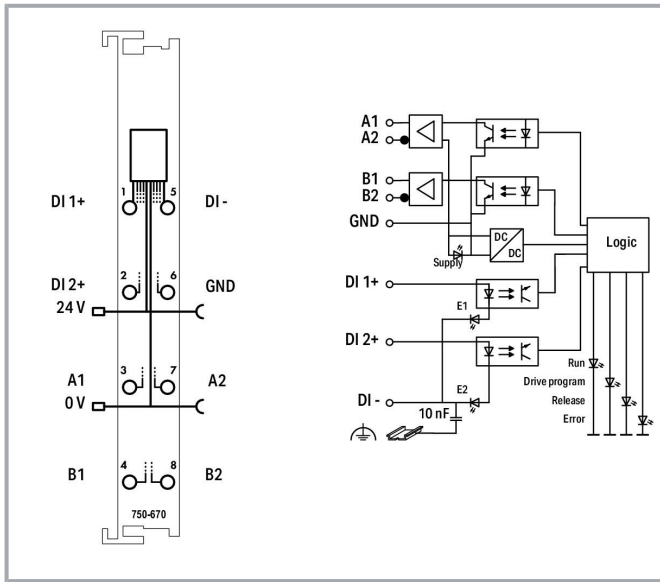
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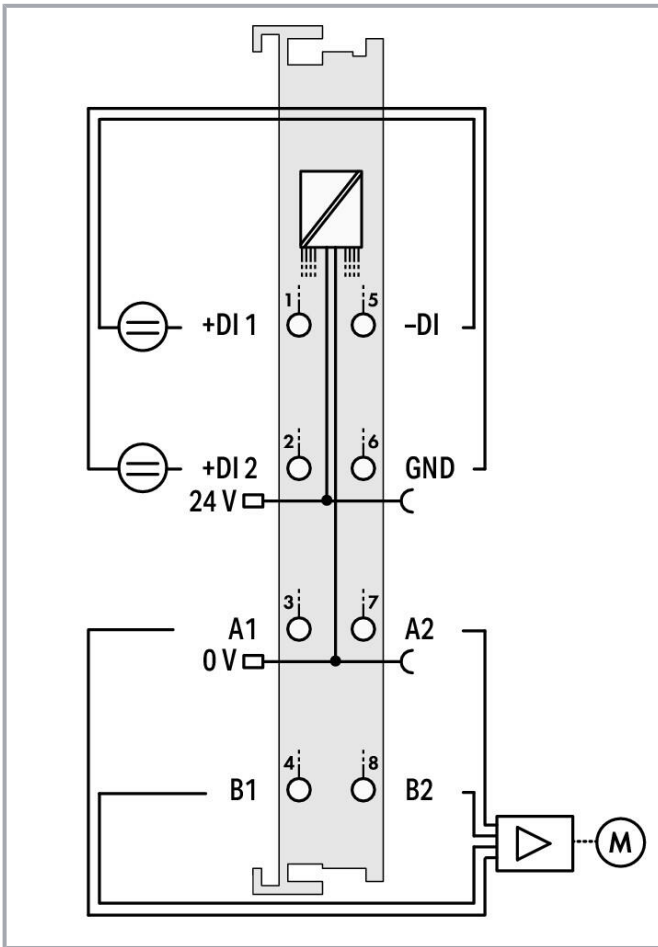
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WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

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Item description

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

Both RS-422 and 24 V or 20 mA interfaces are available.

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 directly processed by the internal software without delay.

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 Controllers.

Additional operating modes:

—

Subject to changes. Please also observe the further product documentation!

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- Pulse width modulation
- Frequency generator
- Single-shot mode

Data

Technical data

Device-specific	Operating modes: Individual positioning, reference run, jog, tip, command tables, PWM
Number of digital inputs	2
Number of outputs	1 channel (2 differential outputs A1, A2, B1, B2)
Input filter	100 µs, software filter can be connected
Input current (typ.)	2.8 mA
Output current per channel	0.03 A
Output current	short-circuit-protected
Load type	RS-422, TTL, optocoupler
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Signal voltage	5 VDC (internal), 5 ... 24 VDC (external)
Signal frequency (min.)	0 Hz
Signal frequency (max.)	500000 Hz
Resolution	15 bits + 16 bit prescaler
Stepper resolution	23 bits + sign bit
Duty cycle	50 % (in stepper motor mode)
Data width	12-byte input/output
Functions	Absolute/relative positioning, setpoint change on the fly, rotary axis, etc.
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	98 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	500 V system/field
Indicators	LED (A-C, G) green: Input 1, Input 2, Supply, Release; LED (E, F) yellow: Run, Drive program activated; LED (H) red: Error
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

Connection data

Connection technology: inputs/outputs

Subject to changes. Please also observe the further product documentation!



	8 x CAGE CLAMP®
Connection type 1	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

Physical data

Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	67.8 mm / 2.669 inches
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inches

Mechanical Data

Mounting type	DIN-35 rail
---------------	-------------

Material Data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.136 MJ
Weight	49.9 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
Vibration resistance	per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2
EMC emission of interference	per 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

Subject to changes. Please also observe the further product documentation!

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%

Permissible SO₂ contaminant concentration at a relative humidity 75 25 ppm

%

Commercial data





Product Group	15 (I/O System)
eCl@ss 10.0	27-24-26-05
eCl@ss 9.0	27-24-26-05
ETIM 8.0	EC001601
ETIM 7.0	EC001601
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454539719
Customs tariff number	85389099990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43- MCM750
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Declarations of conformity and manufacturer's declarations

Certificate

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 32423 Minden
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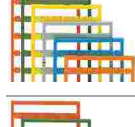

Logo	Approval	Additional Approval Text	name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Approvals for hazardous areas			
Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV_14_ATEX_148929_X (II 3 G Ex ec IIC T4 Gc)
	CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163 /19 (2Ex nA IIC T4 Gc X)
	IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
	INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
	UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX003X_ec
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Optional accessories

Marking accessories

Marker carrier		
	Item no.: 750-103 Group marker carrier	www.wago.com/750-103

Subject to changes. Please also observe the further product documentation!

Marker		
	Item no.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	www.wago.com/2009-145/000-006
	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
	Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	www.wago.com/2009-145/000-002
	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	www.wago.com/2009-145/000-007
	Item no.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	www.wago.com/2009-145/000-005
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	www.wago.com/2009-145/000-012
	Item no.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	www.wago.com/2009-145/000-023
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	www.wago.com/2009-145/000-024
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	www.wago.com/248-501/000-006
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	www.wago.com/248-501/000-007
	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow	www.wago.com/248-501/000-002
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/248-501/000-012

Subject to changes. Please also observe the further product documentation!



Item no.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

www.wago.com/248-501



Item no.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

www.wago.com/248-501/000-017



Item no.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

www.wago.com/248-501/000-005



Item no.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

www.wago.com/248-501/000-024



Item no.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/248-501/000-023

Group marker carrier



Item no.: 750-107
Group marker carrier

www.wago.com/750-107

Supply module

Supply module



Item no.: 750-601
Power Supply; 24 VDC; fuse holder

www.wago.com/750-601



Item no.: 750-610
Power Supply; 24 VDC; fuse holder; Diagnostics

www.wago.com/750-610



Item no.: 750-602
Power Supply; 24 VDC

www.wago.com/750-602



Item no.: 750-612
Power Supply; 0 ... 230 V AC/DC

www.wago.com/750-612

Carrier rail

Mounting accessories



Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored

www.wago.com/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; copper-colored








www.wago.com/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; silver-colored

www.wago.com/210-504

Subject to changes. Please also observe the further product documentation!

	Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	www.wago.com/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; silver-colored	www.wago.com/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; silver-colored	www.wago.com/210-508
	Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-113
	Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-118
	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; silver-colored	www.wago.com/210-112
	Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	www.wago.com/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; silver-colored	www.wago.com/210-115
	Item no.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	www.wago.com/210-196









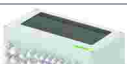
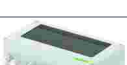
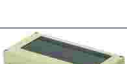


Shield termination

Shield clamping saddles		
	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	www.wago.com/790-116
	Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm	www.wago.com/790-124
	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm	www.wago.com/790-108
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm	www.wago.com/790-216
	Item no.: 790-220 Shield clamping saddle; 30 mm wide; 6 ... 20 mm	www.wago.com/790-220
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	www.wago.com/790-208

Subject to changes. Please also observe the further product documentation!

System housing

System enclosure

	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	www.wago.com/850-814/002-000
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	www.wago.com/850-815/002-000
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	www.wago.com/850-816/002-000
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	www.wago.com/850-817/002-000
	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	www.wago.com/850-825
	Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-826
	Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-827
	Item no.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-827/002-000
	Item no.: 850-826/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-826/002-000
	Item no.: 850-828/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	www.wago.com/850-828/002-000
	Item no.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	www.wago.com/850-828
	Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	www.wago.com/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	www.wago.com/850-835
	Item no.: 850-836	

Subject to changes. Please also observe the further product documentation!



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

www.wago.com/850-836

Downloads

Documentation

Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.0 2023 May 4	pdf 8.8 MB	Download
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Product Manual Stepper Controller RS-422 / 24V / 20mA	V 1.0.3	pdf 2.3 MB	Download
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System Manual Series 750/753 Online HTML		URL	Download
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Bid Text

750-670 X81 - Datei	2019 Feb 19	xml 6.4 kB	Download
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750-670 doc - Datei	2017 Oct 9	doc 29.2 kB	Download
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Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 Apr 26	pdf 163.6 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
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System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 789.0 kB	Download
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750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download
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Application Notes

Application Note CoDeSys 2.3

Nutzung der Bibliothek Stepper_02 für die Module 750-670,750-671 (a114900) Dieser Anwendungshinweis zeigt auf, wie mit der Bibliothek Stepper_02.lib grundlegende Funktionen der Stepperklemmen 750-670 und 750-671 genutzt werden können.	1.0.3 2008 Feb 25	zip 3.9 MB	Download
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Application note SIEMENS

Using stepper modules with TIA Portal (a114904) This application note describes how to use WAGO Stepper modules and MC2 function blocks with Siemens TIA Portal.	1.2.5 2021 Jan 5	zip 10.2 MB	Download
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Benutzung der Stepper Module 750-670,750-671,750-672,750-673 mit Siemens Step 7 (a114903) Dieser Anwendungshinweis beschreibt die Bausteine, die zur Nutzung der verschiedenen Stepper Module bereitgestellt werden.	1.1.0 2017 Feb 3	zip 8.9 MB	Download
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Application Note e!COCKPIT

e!COCKPIT Application Note WagoAppStepper In this Application Note, several example projects for the library "WagoAppStepper" are described.	1.0.1 2021 Dec 6	pdf 3.4 MB	Download
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Libraries

Library

Stepper_03.lib Function blocks for the stepper modules 750-670,750-671,750-672,750-673.	1.0.5 2021 Jan 18	zip 603.1 kB	Download
Function blocks for the stepper modules 750-670 and 750-671 Function blocks for the stepper modules 750-670 and 750-671.	1.0.5 2007 Jan 3	zip 886.1 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 750-670		URL	Download
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CAE data

EPLAN Data Portal 750-670		URL	Download
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WSCAD Universe 750-670

[URL](#) [Download](#)

ZUKEN Portal 750-670

[URL](#) [Download](#)

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857

6.5.3.0
2014 Sep 10

zip
4.8 MB

[Download](#)

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-670
Stepper Controller; RS-422/24 VDC; 20 mA

[URL](#) [Download](#)

Installation Notes

Product family

WAGO I/O System 750/753
[Show all products from the family](#)

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