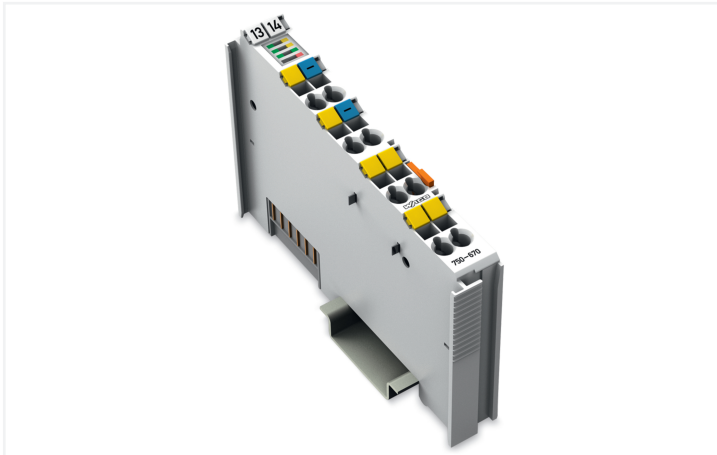
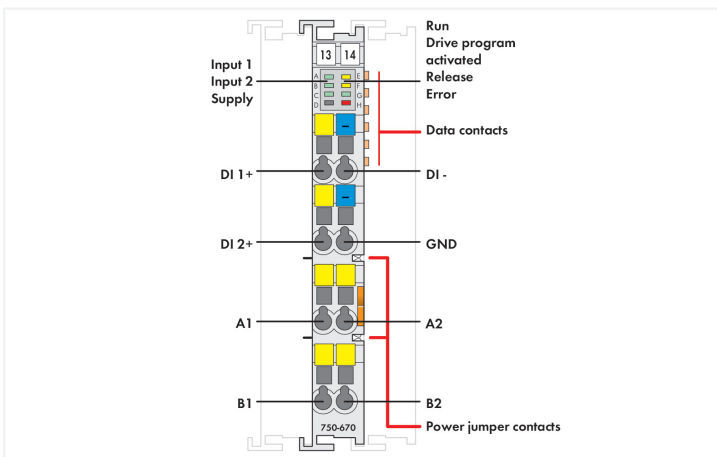
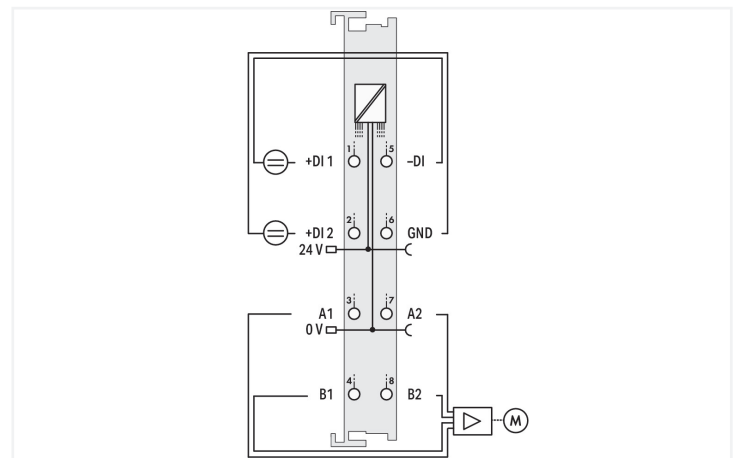
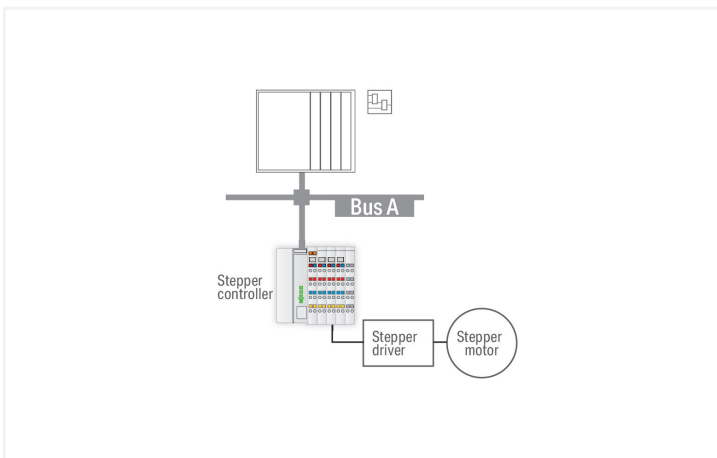
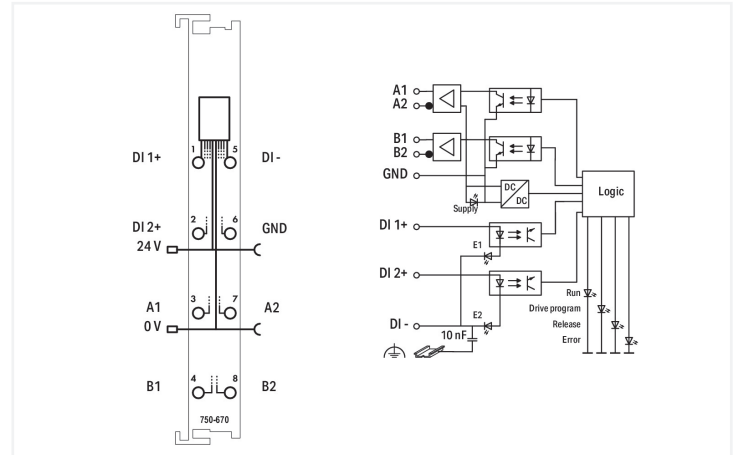




Color: ■ light gray



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:

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



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
Function		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 (field side supply voltage only) via spring contact)
Isolation		500 V system/field
Indicators		LED (A-C, G) green: Input 1, Input 2, Power Supply, Enable; LED (E, F) yellow: Run, Run Program Active; LED (H) red: Error
Number of incoming power jumper contacts		2
Number of outgoing power jumper contacts		2

Connection data		
Connection technology: I/O		8 x CAGE CLAMP®
Connectable conductor materials		Copper
Connection type		Inputs/outputs
Solid conductor		0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor		0.08 ... 2.5 mm² / 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
Pluggable connector		fixed



Material data	
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.927 MJ
Weight	49.9 g
Conformity marking	CE

Environmental requirements	
Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	Horizontal left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
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
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data	
Product Group	15 (I/O System)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454539719
Customs tariff number	85389099990

Product Classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-05
eCl@ss 9.0	27-24-26-05
ETIM 9.0	EC001601
ETIM 8.0	EC001601
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-MCM750			
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 508	E175199			

Approvals for hazardous areas

					
Approval	Standard	Certificate Name			
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)			
CCCEX CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)			
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)			
INMETRO TUV Rheinland do Brasil Ltda.	IEC 60079-0	TÜV 12.1297 X			
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec			
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726			

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 750-670	

Documentation

Manual				System Description	
Product Manual Step- per Controller RS-422 / 24V / 20mA	V 1.0.3	pdf 2215.46 KB		750/753 Series I/O- System – General Pro- duct Information	pdf 953.35 KB 
System Manual Series 750/753				Overview on WAGO-I/ O-SYSTEM 750 appro- vals	pdf 770.48 KB 



Bid Text			
750-670	19.02.2019	xml 6.23 KB	↓
750-670	09.10.2017	doc 28.50 KB	↓

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 159.76 KB	↓

Application Notes

Application Note CoDeSys 2.3			
Nutzung der Bibliothek Stepper_02 für die Module 750-670,750-671 (a114900)	1.0.3 25.02.2008	zip 3761.39 KB	↓

Application Note e!COCKPIT			
e!COCKPIT Application Note WagoAppStepper	1.0.1 06.12.2021	pdf 3306.34 KB	↓

Application note SIEMENS			
	1.1.0 03.02.2017	zip 8659.49 KB	↓
Using stepper modules with TIA Portal (a114904)	1.2.5 05.01.2021	zip 9967.41 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 750-670	↓

CAE data	
EPLAN Data Portal 750-670	↓
WSCAD Universe 750-670	↓
ZUKEN Portal 750-670	↓

Device Files

Device Driver			
WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	↓

Libraries

Library			
Stepper_03.lib	1.0.5 18.01.2021	zip 588.94 KB	↓
Function blocks for the stepper modules 750-670 and 750-671	1.0.5 03.01.2007	zip 865.32 KB	↓



1 Compatible Products			
1.1 Optional Accessories			
1.1.1 DIN-rail			
1.1.1.1 Mounting accessories			
			
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	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	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	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
			
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	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	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	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
			
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	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	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	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
1.1.2 Marking			
1.1.2.1 Group marker carrier			
			
Item No.: 750-107 Group marker carrier			
1.1.2.2 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	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	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	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
			
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	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	Item No.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	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
			
Item No.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	Item No.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	Item No.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	Item No.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green
			
Item No.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	Item No.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	Item No.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	Item No.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white
			
Item No.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow			



1.1.2.3 Marker carrier



Item No.: 750-103
Group marker carrier

1.1.3 Shield termination

1.1.3.1 Shield clamping saddles



Item No.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm



Item No.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm



Item No.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm



Item No.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm



Item No.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm



Item No.: 790-140
Shield clamping saddle; diameter of compatible conductor

1.1.4 Supply module

1.1.4.1 Supply module



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



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



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



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

1.1.5 System enclosure

1.1.5.1 System enclosure



Item No.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



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



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



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



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

