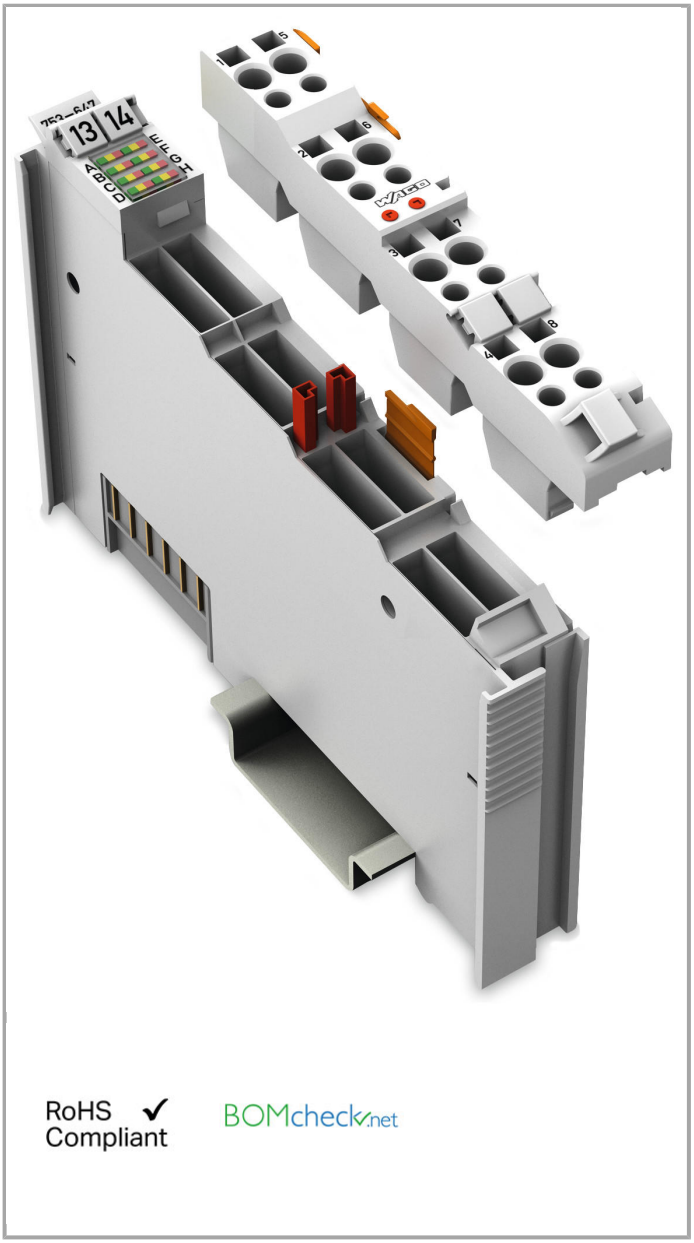
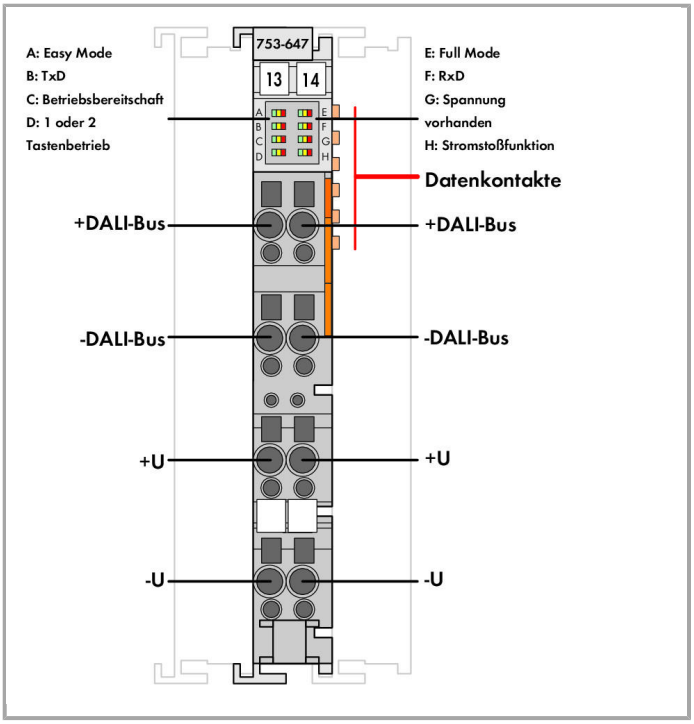
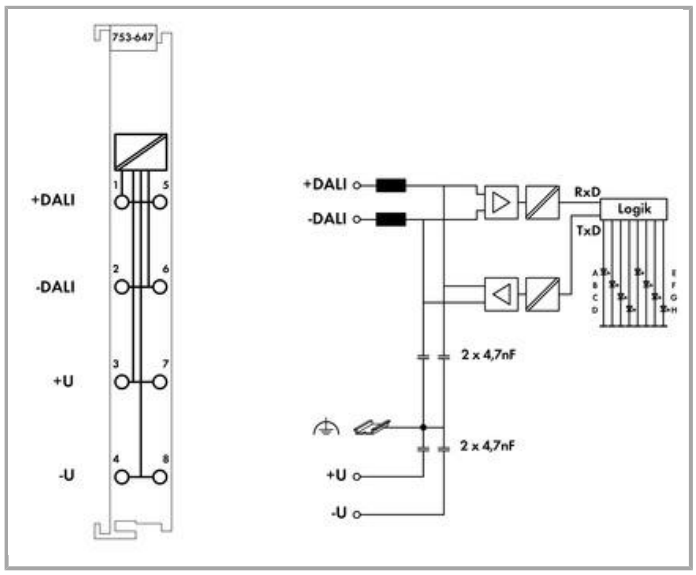
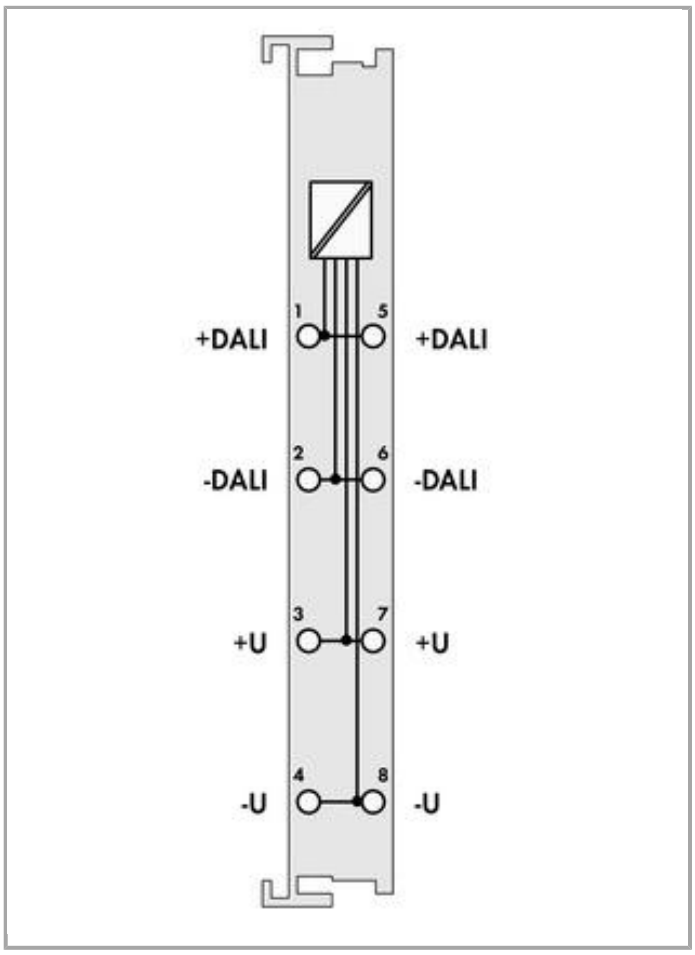

13
14
RoHS
Compliant
BOMcheck.net


753-647
13
14
A: Easy Mode
B: TxD
C: Betriebsbereitschaft
D: 1 oder 2
Tastenbetrieb
E: Full Mode
F: RxD
G: Spannung
vorhanden
H: Stromstoßfunktion
Datenkontakte
+DALI-Bus
+DALI-Bus
-DALI-Bus
-DALI-Bus
+U
+U
-U
-U





Item description

The 753-647 DALI Multi-Master Module complies with DALI standard according to IEC 62386. This manufacturer-independent protocol ensures interoperability of DALI devices in lighting applications.

The 1⁄2 inch (12 mm) wide module is a DALI interface used in combination with WAGO 750 Series Controllers and Modules (e.g., BACnet, KNX, EnOcean, LON, MODBUS).

Each DALI Multi-Master Module supports 64 addresses for electronic control gears (ECGs) and 64 addresses for DALI sensors. Each DALI ECG can be assigned to 16 groups and 16 scenes. The 753-647 Module also offers 16 additional virtual groups on the DALI bus.

Using the WAGO-I/O-SYSTEM, DALI control devices are seamlessly integrated with all supported BA and fieldbus protocols. Several DALI masters can be connected to a single fieldbus node. The maximum number of modules that can be connected to a controller depends on the memory required by the application. Fieldbus nodes are programmed via WAGO-I/O-PRO software. WAGO provides a comprehensive IEC-61131-3 library of function blocks, simplifying the creation of complex lighting applications.

Alternatively, an “Easy Mode” allows lighting functions to be easily controlled without any complicated PLC programming. The 753-647 Module is future-proof and upgradable to the latest DALI release. A comprehensive and easy-to-use commissioning and maintenance tool is available as stand-alone application or as integrated WAGO-I/O-CHECK software component.

The two following power supply options are available for the 753-647 Series:

1. The 753-620 DALI Multi-Master DC/DC Converter is used to supply one single module.

2. The 787-1007 Power Supply is used to supply several modules.

Data

Technical Data

Topology	Number of slaves (DALI): addressable: 64 control devices + 64 control gears
Transmission channel	1
Bit width	24-byte data
Guaranteed supply current	200 mA
Maximum supply current	250 mA
Power supply	DALI: 18 V (extern)
Commissioning	via WAGO-I/O-CHECK
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	85 mA
Isolation	1500 V DC DALI bus/Internal data bus

Connection data

Connection technology: In-/Outputs	8 x CAGE CLAMP®
Connection type (1)	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	9 … 10 mm / 0.35 … 0.39 Inch

Geometrical Data

Width	12 mm / 0.472 inch
Height	69 mm / 2.717 inch
Height from upper-edge of DIN-35 rail	61.8 mm / 2.433 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
Pluggable connector	yes

Material Data

Housing material	Polycarbonate, polyamide 6.6
Weight	55.506 g
Conformity marking	CE

Environmental Requirements

Surrounding air (operating) temperature	0 … 55 °C
Surrounding air (storage) temperature	-40 … 85 °C

Degree of protection	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	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2*, *Only in conjunction with 753-620 / 787-1007 DC/DC Converter
EMC emission of interference	acc. to EN 61000-6-3*, *Only in conjunction with 753-620 / 787-1007 DC/DC Converter
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H_2S contaminant concentration at a relative humidity < 75 %	10 ppm
Permissible SO_2 contaminant concentration at a relative humidity < 75 %	25 ppm

Commercial data

Country of origin	DE
GTIN	4050821475712
Customs Tariff No.	85389099990
Product Group	15 (Remote I/O)

Approvals / Certificates

Country specific Approvals

Logo	Approval	Certificate name
	KC National Radio Research Agency	MSIP-REM-W43-MSM750

Ship Approvals

Logo	Approval	Certificate name
	DNV GL Det Norske Veritas, Germanischer Lloyd	TAA0000194
	DNV GL Det Norske Veritas, Germanischer Lloyd	TAA0000194
	PRS	TE/2210/880590/18

Polski Rejestr Statków

UL-Approvals

Logo	Approval	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	E175199 Sec.1 (ORDINARY LOCATIONS)

Compatible products

pluggable wiring tier

	Item no.: 753-150 753 Series coding elements	www.wago.com/753-150

system box

	Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	www.wago.com/850-804
	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	www.wago.com/850-804/000-001
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	www.wago.com/850-805
	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.: 850-826/002-000	

	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.: 850-827** 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.: 850-828** 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.: 850-828/002-000** 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.: 850-834** 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** IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-836

sensors

	**Item no.: 2851-8201** WAGO DALI Multi-Sensor Kit	www.wago.com/2851-8201
	**Item no.: 2851-8202** DALI Sensor Coupler	www.wago.com/2851-8202
	**Item no.: 2851-8301** DALI MSensor 02 5DPI 41rc (Ceiling Installation)	www.wago.com/2851-8301
	**Item no.: 2851-8302** DALI MSensor 02 5DPI 41W (Box installation)	www.wago.com/2851-8302
	**Item no.: 2851-8303** DALI MSensor 02 5DPI 41rs (Surface Installation)	www.wago.com/2851-8303

shield connection

	**Item no.: 790-108** Shield clamping saddle; 11 mm wide; diameter of compatible conductor	www.wago.com/790-108
	**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.: 790-140** Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140
	**Item no.: 790-208** Shield clamping saddle; 12.4 mm wide; 3 … 8 mm	www.wago.com/790-208
	**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

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	www.wago.com/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	www.wago.com/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	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	www.wago.com/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	www.wago.com/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	www.wago.com/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	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	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	www.wago.com/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	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	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	www.wago.com/210-508

Marking accessories

	**Item no.: 2009-145** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145

	**Item no.: 2009-145/000-002** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-002
	**Item no.: 2009-145/000-005** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-005
	**Item no.: 2009-145/000-006** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-006
	**Item no.: 2009-145/000-007** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-007
	**Item no.: 2009-145/000-012** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-012
	**Item no.: 2009-145/000-023** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-023
	**Item no.: 2009-145/000-024** Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-024
	**Item no.: 248-501** Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card	www.wago.com/248-501
	**Item no.: 248-501/000-002** Mini-WSB marking card; as card; not stretchable; plain; snap-on type	www.wago.com/248-501/000-002
	**Item no.: 248-501/000-005** Mini-WSB marking card; as card; plain; snap-on type	www.wago.com/248-501/000-005
	**Item no.: 248-501/000-006** Mini-WSB marking card; as card; not stretchable; plain; snap-on type	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	www.wago.com/248-501/000-007
	**Item no.: 248-501/000-012** Mini-WSB marking card; as card; not stretchable; plain; snap-on type	www.wago.com/248-501/000-012
	**Item no.: 248-501/000-017** Mini-WSB marking card; as card; not stretchable; plain; snap-on type	www.wago.com/248-501/000-017
	**Item no.: 248-501/000-023** Mini-WSB marking card; as card; not stretchable; plain; snap-on type	www.wago.com/248-501/000-023

	**Item no.: 248-501/000-024** Mini-WSB marking card; as card; not stretchable; plain; snap-on type	www.wago.com/248-501/000-024
	**Item no.: 750-103** Group marker carrier	www.wago.com/750-103
	**Item no.: 750-107** Group marker carrier	www.wago.com/750-107

power supply

	**Item no.: 753-620** DALI Multi-Master DC/DC converter	www.wago.com/753-620
	**Item no.: 787-1007** Switched-mode power supply; for DALI module (753-647); 1-phase; 18 VDC output voltage; 1.1 A output current	www.wago.com/787-1007

Downloads

Documentation

Manual

DALI Multi-Master Module	Aug 10, 2018	3.0 MB	Download
WAGO DALI Configurator For configuring WAGO 753-647 DALI Multi-Master Modules	Nov 14, 2016	3.0 MB	Download

Bid Text

753-647	Jan 21, 2016	DOC 31.7 kB	Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018	265.8 kB	Download

Compatibility Information

Compatibility List DALI Sensors This application note shows all DALI Sensors which are compatible with CODESYS V2.3 applications, e!Cockpit applications, the WAGO Lighting Management software and the WAGO DALI Configurator.	Dec 7, 2018	1.3 MB	Download

System Description

Use in Hazardous Environments Term definition, marking and installation regulations	May 8, 2014	1.0 MB	Download

Overview on WAGO-I/O-SYSTEM 750 approvals	Jun 6, 2017	314.9 kB	Download
750/753 Series I/O-System – General Product Information	May 29, 2018	2.0 MB	Download
Design Notes Basic conditions and recommendations for higher operational safety	May 3, 2011	1.5 MB	Download

Application Notes

Application Note CoDeSys 2.3

Compatibility List DALI Sensors This application note shows all DALI Sensors which are compatible with CODESYS V2. 3 applications, e!Cockpit applications, the WAGO Lighting Management software and the WAGO DALI Configurator.	Dec 7, 2018	1.3 MB	Download
Application note: DALI 753-647 Configuration Interface This application note describes the WAGO DALI Configurator, the integration of the DALI visualization for configuring various sensor types and the implementation in a program.	Jun 20, 2017	2.9 MB	Download
Application Note ThebenKNX_DALI Connecting the Theben thePrema P360 KNX Presence Detector to the WAGO I/O-System	Aug 29, 2016	745.2 kB	Download

Application Note e!COCKPIT

Compatibility List DALI Sensors This application note shows all DALI Sensors which are compatible with CODESYS V2. 3 applications, e!Cockpit applications, the WAGO Lighting Management software and the WAGO DALI Configurator.	Dec 7, 2018	1.3 MB	Download
e!COCKPIT application note WagoAppDALI This application note describes the WAGO DALI Configurator, the integration of the DALI visualization for configuring ECG's and the implementation in an e!COCKPIT application.	Jan 23, 2018	2.5 MB	Download

Libraries

Library

Libraries for Building Automation CODESYS 2.3 This Zip-File contains WAGO I/O PRO libraries for Building Automation The following applications are supported: - DALI - DALI Sensors - DALI Colour Control - DALI Emergency Lighting - Enocean - SMI - HVAC Functions - Blind control, Dimmer, Latching Relay ... - Scheduler - KNX Functionblocks - BACnet - WINSTA Blind Control - DMX - Weather Station Elsner - M-Bus, MBus - MP-Bus, MPBus - Romutec -	Jan 25, 2019	ZIP 68.6 MB	Download

Thermokon WRF06 - Thermokon WRF08 - 3-Phase Power Measurement 750-493 - LON - Grundfos GENIbus Interface

e!COCKPIT libraries

e!COCKPIT library description WagoAppDALI	Aug 31, 2018	PDF 1.2 MB	Download

Engineering-Software

Configuration and Commissioning Software

WAGO DALI Configurator Setup Full Version (753-647) The full setup, in addition to the DALI Configurator, includes the installation for the . NET Framework 4.0 and Microsoft Visual C++ 2010 Redistributable Package (x86). This installation is recommended if the DALI Configurator is being installed for the first time.	3.0.0.6 Apr 24, 2017	EXE 64.4 MB	Download
WAGO DALI Configurator Setup Small Version (753-647) The small setup includes only the DALI Configurator. This installation is recommended for updates or when the software packages contained in the full setup are already installed.	3.0.0.6 Apr 24, 2017	EXE 7.6 MB	Download

smartDATA

CAD data

3D Download 753-647		URL	Download

Product family

750/753 Series I/O-System
Learn more about the product family.

Show all products from the family

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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.