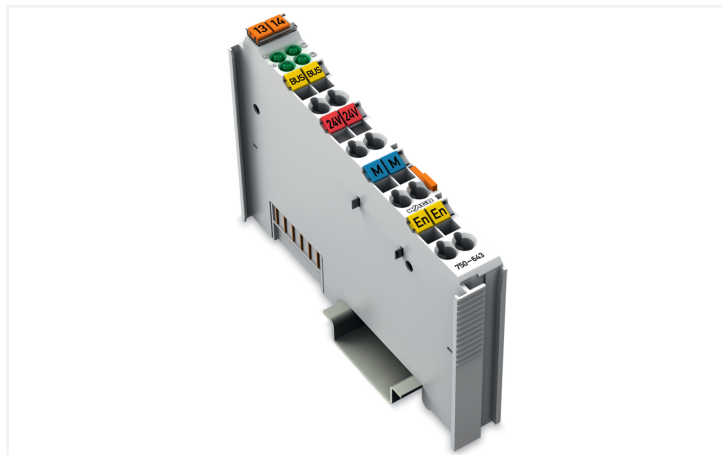
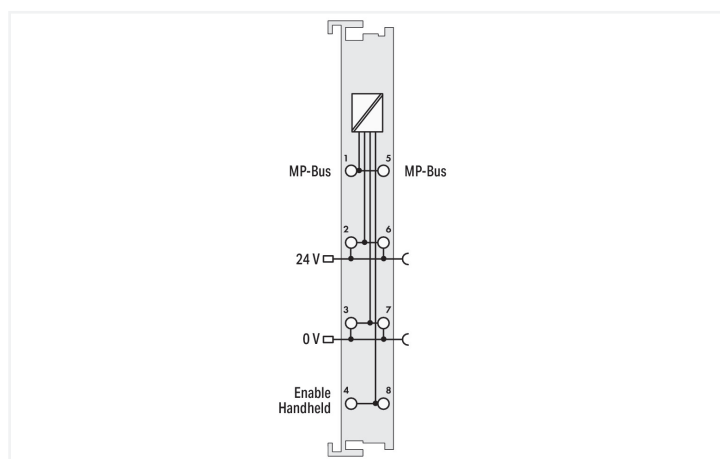
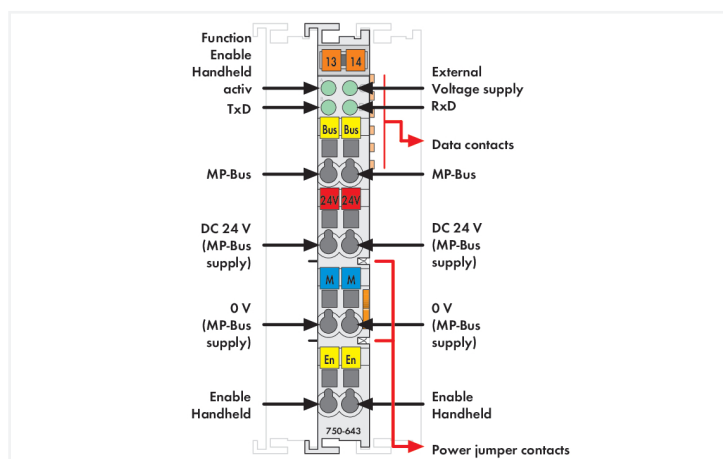
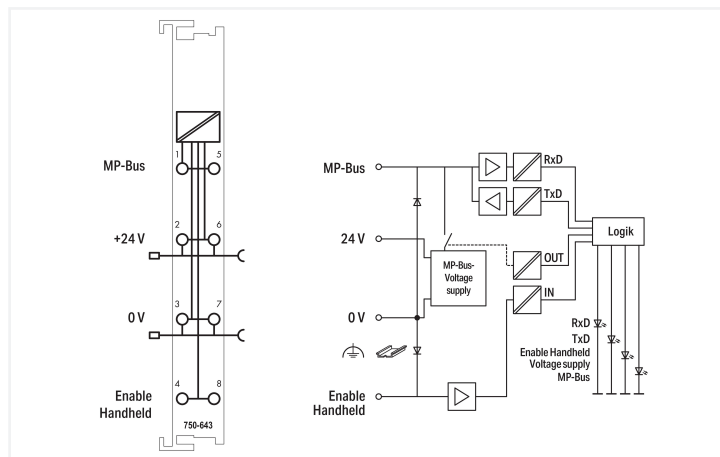




Color: ■ light gray



The 750-643 Module acts as a master for the MP bus (Multi-Point bus from Belimo/Switzerland) and allows the bus to be integrated into a higher level bus network such as ETHERNET or LONWORKS®. The MP-Bus controls HVAC actuators for dampers, regulator valves or VAV air volume controls. An additional product series for MP-Bus connection is the window ventilation system (FLS) from Belimo (MP-Bus connection for Belimo actuators, see Belimo documentation). Devices that are equipped with an MP-Bus connection (e.g., Belimo MFT actuator series) can communicate with a higher-level control system via bus cable. The actuators have connections for sensors (temperature, humidity, on/off switch) that are also accessible via MP-Bus. An MP-Bus Master can manage up to eight slaves (actuators) and eight sensors (one sensor can be connected to each slave) via a common bus line, which considerably reduces actuator and sensor wiring (for MP-bus cable lengths, see Belimo documentation). *Documentation available in German and English.

A Belimo parameterization unit (hand-held control unit, or Belimo PC tool) can be connected to the module to configure the Belimo actuators. The enable hand-held contact can be used for this. The module deactivates its MP-bus communication when the external parameterization unit is connected to this contact (or simply to the +24 V power supply).



Technical data		
Device specification	MP-Bus Specification: PP/MP Specification V1.21 from Belimo (Valid since 1.10.2002)	
Topology	Number of participants: 8 slaves (max.)	
Current consumption, typ.	25 mA (MP-Bus)	
Data width	1-byte C/S, 7-byte data	
Supply voltage	MP-Bus: 24 VDC, via power jumper contacts	
Supply voltage (system)	5 VDC; via data contacts	
Current consumption (system supply)	15 mA	
Supply voltage (field)	24 VDC; via power jumper contacts (power supply via blade contact; transmission (field side supply voltage only) via spring contact)	
Isolation	500 V (rms) MP-Bus/system	
Indicators	LED (A-D) green: active enable handheld function, TxD, external power supply, RxD	
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 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	69.8 mm / 2.748 inches	
Depth from upper-edge of DIN-rail	62.6 mm / 2.465 inches	

Mechanical data		
Mounting type	DIN-35 rail	
Pluggable connector	fixed	

Material data		
Color	light gray	
Housing material	Polycarbonate; polyamide 6.6	
Fire load	0.941 MJ	
Weight	50.5 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	

Environmental requirements	
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	4045454394011
Customs tariff number	85389099990

Product Classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-08
eCl@ss 9.0	27-24-26-08
ETIM 9.0	EC001604
ETIM 10.0	EC001604
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 Conformity WAGO GmbH & Co. KG	-	-
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-MSM750			
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199			

Approvals for hazardous areas			Approvals for hazardous areas		
        					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)	UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
CCCEX CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726
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	TUV 12.1297 X			



Downloads			
Environmental Product Compliance			
Compliance Search			
Environmental Product Compliance 750-643			↓

Documentation			
Manual		System Description	
System Manual Series 750/753		750/753 Series I/O-System – General Product Information	pdf 953.35 KB ↓
Product Manual MP Bus Master Module	V 1.3.0	Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB ↓

Bid Text			
750-643	16.10.2017	doc 25.50 KB	↓
750-643	19.02.2019	xml 4.26 KB	↓
ausschreiben.de 750-643			↓

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

Application Notes			
Application Note CoDeSys 2.3		Application Note e!COCKPIT	
Application Note: Mp-Bus_03 Library	2020-08-14 14.08.2020	eCOCKPIT Application Note WagoAppMP_Bus	1.0.2 06.12.2021 pdf 625.92 KB ↓

CAD/CAE-Data		CAE data	
CAD data		EPLAN Data Portal 750-643	
2D/3D Models 750-643		WSCAD Universe 750-643	
		ZUKEN Portal 750-643	



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

e!COCKPIT libraries			
e!COCKPIT Library Description WagoAppMP_Bus	1.1.4.1 29.09.2023	pdf 1572.12 KB	

Library			
Libraries for Building Automation CODESYS 2.3	2025-01-30 30.01.2025	zip 71441.83 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.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-114
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.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

1.1.2 Marking

1.1.2.1 Group marker carrier



Item No.: 750-106
Group marker carrier

1.1.2.2 Marker



Item No.: 750-100
Marker card; as a DIN A4 sheet; plain



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



1.1.2.2 Marker



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); Wx-HxD (160x100x160 mm); 9 x M12, 4 x M20	 Item No.: 850-826 IP65 enclosure; Aluminium (RAL 7032); Wx-HxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	 Item No.: 850-827 IP65 enclosure; Aluminium (RAL 7032); Wx-HxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	 Item No.: 850-828 IP65 enclosure; Aluminium (RAL 7032); Wx-HxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip
 Item No.: 850-826/002-000 IP65 enclosure; Aluminium (RAL 7035); Wx-HxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	 Item No.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); Wx-HxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	 Item No.: 850-828/002-000 IP65 enclosure; Aluminium (RAL 7035); Wx-HxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	 Item No.: 850-834 IP65 enclosure; Polyester (RAL 7032); Wx-HxD (164x100x164 mm); 9 x M12, 4 x M20
 Item No.: 850-835 IP65 enclosure; Polyester (RAL 7032); Wx-HxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	 Item No.: 850-836 IP65 enclosure; Polyester (RAL 7032); Wx-HxD (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); Wx-HxD (200x120x200 mm); without flange plate	 Item No.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); Wx-HxD (300x120x200 mm); without flange plate
 Item No.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); Wx-HxD (400x120x200 mm); without flange plate	 Item No.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); Wx-HxD (600x120x200 mm); without flange plate		

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

Current addresses can be found at: www.wago.com