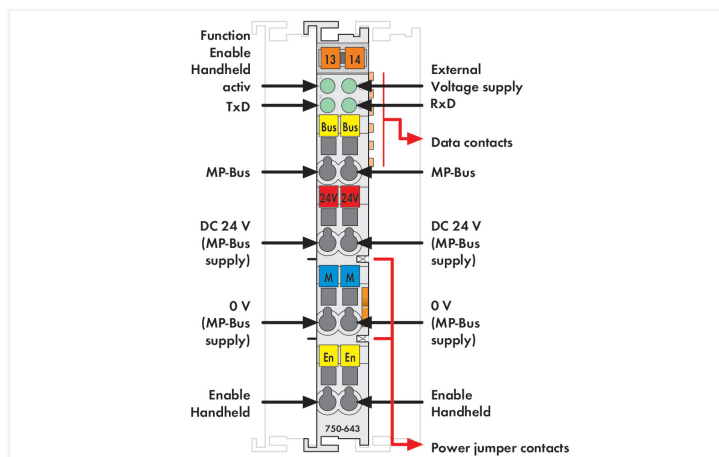
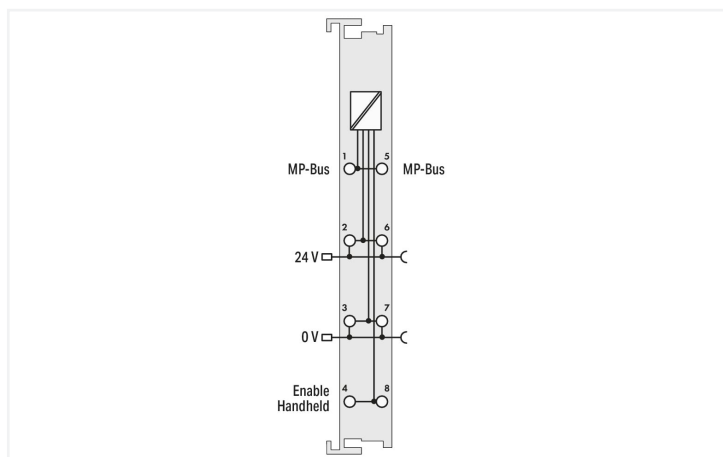
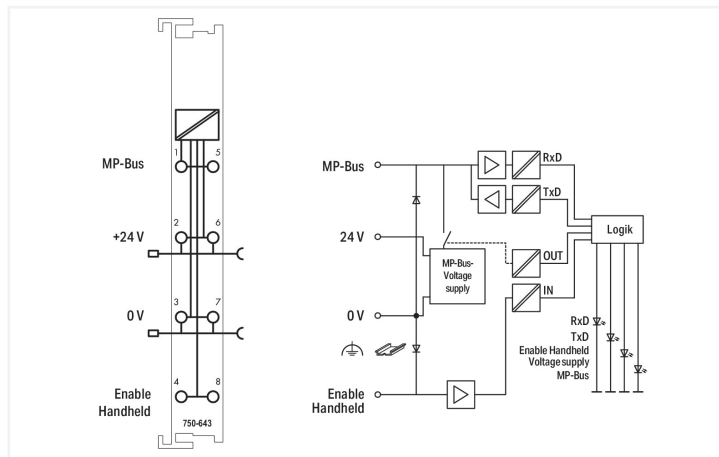




Color: ■ light gray



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 handheld 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
Power supply	MP-Bus: 24 VDC, via power jumper contacts
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	15 mA
Supply voltage (field)	24 VDC; via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	500 V (rms) MP-Bus/system
Indicators	LED (A-D) green: active enable handheld function, Tx/D, external power supply, Rx/D
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

### Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 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
---------------	-------------

### Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.037 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 (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 <sub>2</sub> S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75 %	25 ppm

### Commercial data

Product Group	15 (I/O System)
eCl@ss 10.0	27-24-26-08
eCl@ss 9.0	27-24-26-08
ETIM 8.0	EC001604
ETIM 7.0	EC001604
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454394011
Customs tariff number	85389099990

**Environmental Product Compliance**

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

**Approvals / Certificates**

**General approvals** **Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
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-MSM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

**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)
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_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

**Downloads**

**Environmental Product Compliance**

Compliance Search
Environmental Product Compliance 750-643

### Documentation

Manual			
System Manual WAGO I/O System 750/753	V 3.3.3 29.08.2023	pdf 8512.61 KB	<a href="#">↓</a>
System Manual Series 750/753			<a href="#">↓</a>
Product Manual MP Bus Master Module	V 1.3.0	pdf 358.22 KB	<a href="#">↓</a>

System Description			
750/753 Series I/O-System – General Product Information		pdf 953.35 KB	<a href="#">↓</a>
Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 770.48 KB	<a href="#">↓</a>

Bid Text			
750-643	16.10.2017	doc 25.50 KB	<a href="#">↓</a>
750-643	19.02.2019	xml 4.26 KB	<a href="#">↓</a>
ausschreiben.de 750-643			<a href="#">↓</a>

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 159.76 KB	<a href="#">↓</a>

### Application Notes

Application Note CoDeSys 2.3			
Application Note: Mp-Bus_03 Library	2020-08-14 14.08.2020	zip 513.66 KB	<a href="#">↓</a>

Application Note e!COCKPIT			
eCOCKPIT Application Note WagoAppMP_Bus	1.0.2 06.12.2021	pdf 625.92 KB	<a href="#">↓</a>

### CAD/CAE-Data

CAD data	
2D/3D Models 750-643	<a href="#">↓</a>

CAE data	
EPLAN Data Portal 750-643	<a href="#">↓</a>
WSCAD Universe 750-643	<a href="#">↓</a>
ZUKEN Portal 750-643	<a href="#">↓</a>

### Device Files

Device Driver			
WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	<a href="#">↓</a>

**Libraries**

e!COCKPIT libraries			
e!COCKPIT Library Description Wa-goAppMP_Bus	1.1.2.5 25.05.2021	pdf 1236.29 KB	

Library			
Libraries for Building Automation CODESYS 2.3	2023-09-14 14.09.2023	zip 44926.41 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.: 750-106**  
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



**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

### 1.1.2.2 Marker



**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

1.1.5.1 System enclosure



**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