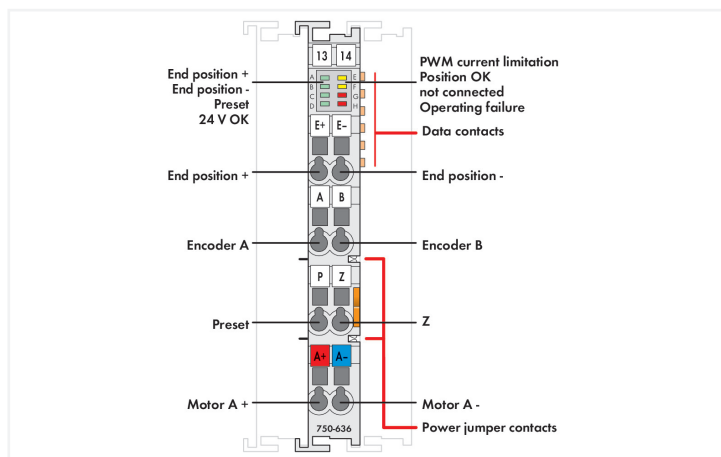
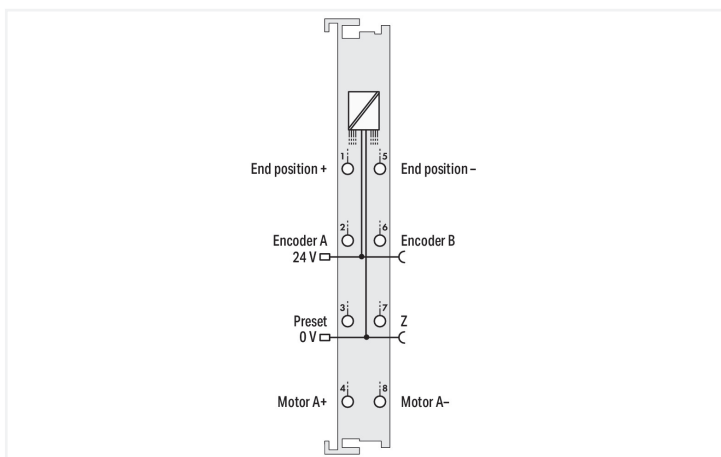
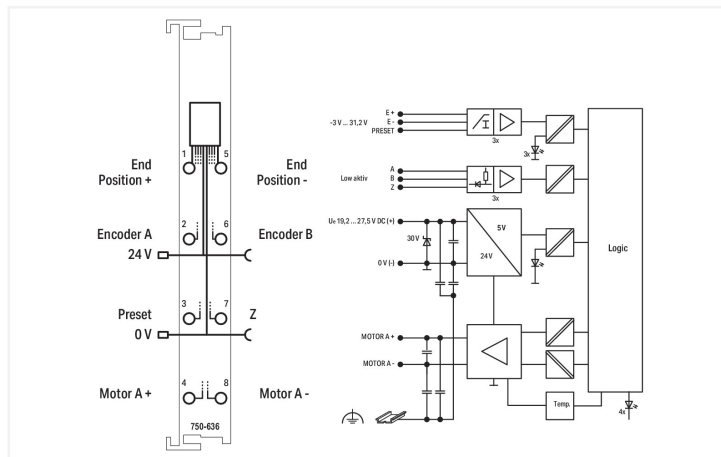




Color: ■ light gray



This module is a single-channel, intelligent positioning controller for 24 VDC motors up to 5 A with incremental position feedback. Three 24 V inputs record the limit switches and a preset signal. An incremental encoder interface evaluates signals from the position sensor and determines the actual value. Where required, positioning optimizes the initial switching position as a function of direction, taking into account compensation for gearing backlash. Bidirectional control of the DC motor is implemented via a short-circuit-proof, temperature-monitored H-bridge. Both switched operation and soft start/stop or current reduction are possible via PWM control. The field-side 24 V supply voltage from the power contacts, which is monitored for undervoltage/overvoltage events, is looped through to adjacent modules. The module can also be used as: a dedicated incremental encoder or as a switch and power controller (PWM).

Technical data	
Number of digital inputs	3
Number of outputs	1 (A+; A-; H-bridge output)
Encoder connection	A, B, zero low-side switching; 5 ... 24 VDC / open collector
Motor connection	A+, A-, H-bridge output; short-circuit-protected
Quadrature decoder	1x, 2x, 4x evaluation
Input characteristic	high-side switching Type 1
Input current at specific input voltage	-3.2 mA at 0.3 V
Input current at specific input voltage (2)	0 mA bei 5 V
Input current (typ.)	2.7 mA at 24 V
Output current (max.) (motor)	5 A (15 A / 500 ms), short-circuit-protected
Voltage range for signal (0)	-3 ... +1.5 VDC
Voltage range for signal (1)	2.4 ... 30 VDC
PWM frequency (typ.)	20 kHz

### Technical data

Data width	32-bit set/actual value; 16-bit control or status
Limit frequency	50 kHz
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	55 mA
Supply voltage (field)	24 VDC (-15 ... +20 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)	12 mA
Isolation	500 V system/field
Indicators	LED (A-D) green: End Position +, End Position -, Preset, 24 V OK; LED (E, F) yellow: PWM Current Limitation, Position OK; LED (G, H) red: Reserved, Operating Fault
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	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
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### Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.967 MJ
Weight	54 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	27-24-26-05
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	4045454925307
Customs tariff number	85389099990

### Environmental Product Compliance

CAS-No.	11120-22-2 1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide Lead silicate
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	5eed9119-6121-4905-8626-51428c8fb070
SCIP notification number (Belgium)	63c19e02-82af-4a4e-960f-b2926a1e17c7
SCIP notification number (Bulgaria)	5cdf4862-5d49-4e54-835e-fb9783403207
SCIP notification number (Czech Republic)	3225c449-b2b1-486f-b76f-aaf557d18ef7
SCIP notification number (Denmark)	a4e11752-04fd-40a8-bbfe-4328f0922d0d
SCIP notification number (Finland)	d7565f47-a353-4f9e-987b-d6df6e0ed891
SCIP notification number (France)	74ef8070-c749-412c-83ed-2656ad76e65a
SCIP notification number (Germany)	9e29b428-141e-4114-a3ef-6ea801dfed8b
SCIP notification number (Hungary)	4c326e51-2d1f-4754-ae49-1db4246ba15d
SCIP notification number (Italy)	c0d0a0b8-3c41-4c5e-b5a6-e92776c7bbda
SCIP notification number (Netherlands)	eeb7afac-9f1e-41a9-91e7-549b8dc918e9
SCIP notification number (Poland)	ac8eaa87-bb3b-4ada-a327-6b9a3a1ad86e
SCIP notification number (Romania)	636ad810-3ccb-4d26-9f12-dc84bf698ff9
SCIP notification number (Sweden)	c9a2bf11-4d77-45c0-ab39-e172f301827f

### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	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

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

**Downloads**

**Environmental Product Compliance**

**Compliance Search**

Environmental Product Compliance 750-636



**Documentation**

**Manual**

Product Manual DC Drive Controller V 2.0.2 pdf 2953.72 KB

System Manual WAGO I/O System 750/753 V 3.3.3 29.08.2023 pdf 8512.61 KB

System Manual Series 750/753

**System Description**

750/753 Series I/O-System – General Product Information pdf 953.35 KB

Overview on WAGO-I/O-SYSTEM 750 approvals pdf 770.48 KB

**Additional Information**

DC drive controller pdf 76.15 KB

**Bid Text**

750-636 19.02.2019 xml 7.18 KB

750-636 09.10.2017 doc 32.50 KB

**CAD/CAE-Data**

**CAD data**

2D/3D Models 750-636

**CAE data**

EPLAN Data Portal 750-636

WSCAD Universe 750-636

ZUKEN Portal 750-636

**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			
Control DC motor with 750-636	1.0.0 08.11.2017	zip 146.93 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

### 1.1.2.2 Marker



**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