



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
Input characteristic	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

Technical data

Voltage range for signal (0)	-3 ... +1.5 VDC
Voltage range for signal (1)	2.4 ... 30 VDC
PWM frequency (typ.)	20 kHz
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 (field side supply voltage only) 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: 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	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

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.669 MJ
Weight	54.5 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-20 ... +60 °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 %
Relative humidity (with condensation)	Short-term condensation per Class 3K6/IEC EN 60721-3-3 and E-DIN 40046-721-3, accounting for a temperature range of -20 to +60 °C (except for wind-driven precipitation, water and ice formation)
Vibration resistance	Per IEC 60068-2-6

Environmental requirements

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	4045454921644
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 10.0	EC001601
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	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
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	d9d0f28c-a07f-46ad-82ff-a91921975d6c
SCIP notification number (Belgium)	0cc1805e-4d0a-437e-a658-d7f1f42930cf
SCIP notification number (Bulgaria)	90a96031-83ef-46f7-9bf4-e6baddd46d97
SCIP notification number (Czech Republic)	591cfe8a-9f0a-4eeb-bdcf-69e3156a99f1
SCIP notification number (Denmark)	bd2e49f3-88bb-4852-ad05-a3a38f5e179c
SCIP notification number (Finland)	9453f83d-deb4-43fb-99e1-39e028aa0d42
SCIP notification number (France)	0f93ffdf-ef1a-4104-9b65-2067c28aa97a
SCIP notification number (Germany)	6f68ab08-dc1d-414e-8c8e-b4c5c2fe911d
SCIP notification number (Hungary)	31d72993-6170-435c-9ab0-fd6bf9a985ed
SCIP notification number (Italy)	b8251262-a7f9-47af-b625-6fd145a02bc8
SCIP notification number (Netherlands)	f684a2d4-3c6a-4067-a3ef-9597f9ca0207
SCIP notification number (Poland)	a8d3eb5c-51c6-48b6-bb2a-71847e4a6092
SCIP notification number (Romania)	fbbbc043-a7b9-4fbd-a577-7fb2ca6236a4
SCIP notification number (Sweden)	9b913afd-77b9-45b0-b052-619322d34efe

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-MCM750

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-636/025-000	↓
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Documentation

Manual

Product Manual DC Drive Controller	V 2.0.2	pdf 2953.72 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	↓
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Bid Text

750-636/025-000	09.10.2017	doc 33.00 KB	↓
750-636/025-000	19.02.2019	xml 7.34 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models 750-636/025-000	↓
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CAE data

EPLAN Data Portal 750-636/025-000	↓
WSCAD Universe 750-636/025-000	↓
ZUKEN Portal 750-636/025-000	↓

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	
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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.: 750-107

Group marker carrier

1.1.2.2 Marker



Item No.: 2009-145/000-006

Mini-WSB In-line; 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 In-line; 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 In-line; 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 In-line; 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 In-line; 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 In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



Item No.: 2009-145

Mini-WSB In-line; 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 In-line; 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

1.1.2.2 Marker



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.: 750-602/025-000

Power Supply; 24 VDC; Ext. Temperature

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

1.1.5.1 System enclosure



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