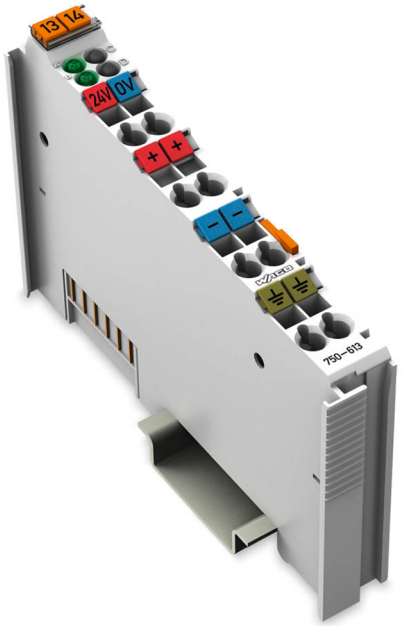
TECHDOCS

WAGO I/O System 750/753

System power supply; 24 V DC

750-613



Product manual
Valid as of HW version 10 | FW version --
2747004171 | 3 | en-US | 2025-06-03 08:54

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Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

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1 Provisions

1.1 Scope of Applicability

This document applies to the following product:

750-613 (System Power Supply; 24 VDC) System power supply; 24 V DC.

From hardware version	10
From firmware version	--
Product detail page	www.wago.com/750-613

Note

Note applicable documents!

The complete operating instructions for the product consists of several, applicable documents. The product must only be installed and operated in accordance with the complete operating instructions. Knowledge of all applicable documents is required for proper use. You can find all documents and information on the product detail page.

Applicable document

System Manual I/O System 750/753

- Provisions
- Safety
- Planning
- Transport and Storage
- Assembly and Disassembly
- Conductor Termination
- Decommissioning

2 Overview

This supply module powers the downstream I/O modules.
This increases the system power supply budget by 2 A.

In addition, the supply module provides a electrically isolated 24 VDC power supply for the field level to downstream I/O modules.

The system power supply is fed parallel to the head station at the upper 24 V and 0 V CAGE CLAMP® connections and is protected by a common fuse.

The field supply voltage (24 V, 0 V, ground) is supplied to the lower CAGE CLAMP® connections from an external source.

The supply module provides the 24 V supply potential, 0 V and ground potential for the field level to downstream I/O modules via the power jumper contacts designed as spring contacts.

Two green status LEDs indicate the status of the power supply for the system supply and field supply, respectively.

3 Properties

3.1 View

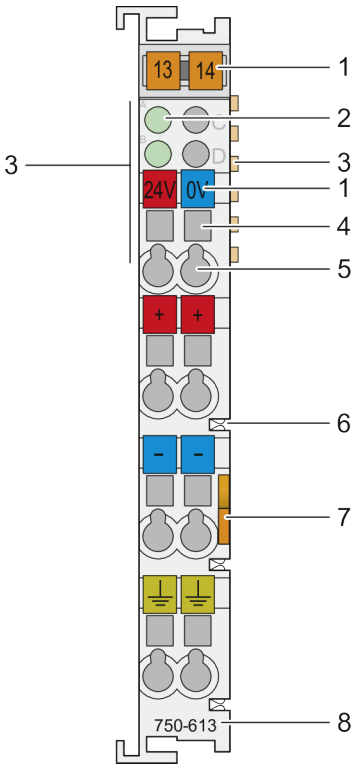

Figure 1: View

1	Slot for Mini-WSB (optional)	🕮 System Manual I/O System 750/753
2	Status LEDs	Indicators [▸ 7]
3	Data contacts	🕮 System Manual I/O System 750/753
4	Access to open the associated CAGE CLAMP® connection	🕮 System Manual I/O System 750/753
5	CAGE CLAMP® connection	Wiring Interface [▸ 7] and 🕮 System Manual I/O System 750/753
6	Power jumper contacts (spring)	Power Jumper Contacts [▸ 8] and 🕮 System Manual I/O System 750/753
7	Release tab	🕮 System Manual I/O System 750/753
8	Item number	Scope of Applicability [▸ 4]

3.2 Indicators

Two green status LEDs indicate the status of the power supply for the system supply and field supply, respectively.

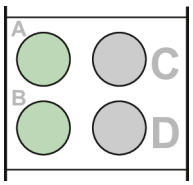

Figure 2: Indicators

Name	LED	Status	Function
Status of the operating voltage — System supply	A	Off	No 24 V operating voltage for the system supply
		Green	24 V operating voltage available for the system supply
Status of the operating voltage — Power jumper contacts	B*)	Off	No 24 V operating voltage at the power jumper contacts
		Green	24 V operating voltage applied to the power jumper contacts

*) LED position is production-dependent; up to hardware version 08: LED C

3.3 Wiring Interface

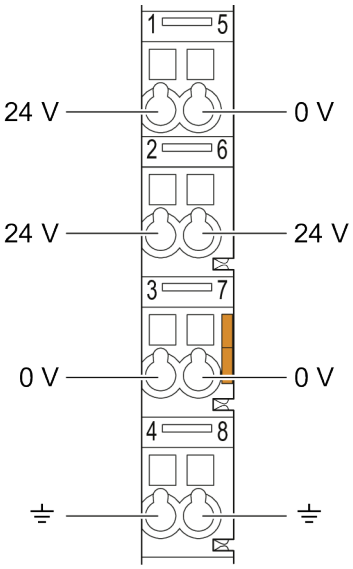

Figure 3: CAGE CLAMP® Connections

Designation	Connection	Function
24 V	1	Feed-in, system supply, 24 VDC
0 V	5	Feed-in, system supply, 0 V
24 V	2	Feed-in, field supply, 24 VDC
	6	
0 V	3	Feed-in, field supply, 0 V
	8	
Ground	4	Feed-in, field supply, ground
Ground	8	

3.4 Power Jumper Contacts

The potential for the field supply is fed in via the spring contacts.

For additional information on the Power Jumper Contacts, please see
System Manual I/O System 750/753.

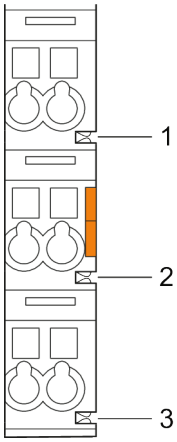

Figure 4: Power Jumper Contacts

No.	Type
1	Groove with spring contact
2	
3	

Arrangement in the Bus Node

For electrical compatibility requirements see Section Schematic Circuit Diagram [▸ 9].

3.5 Schematic Circuit Diagram

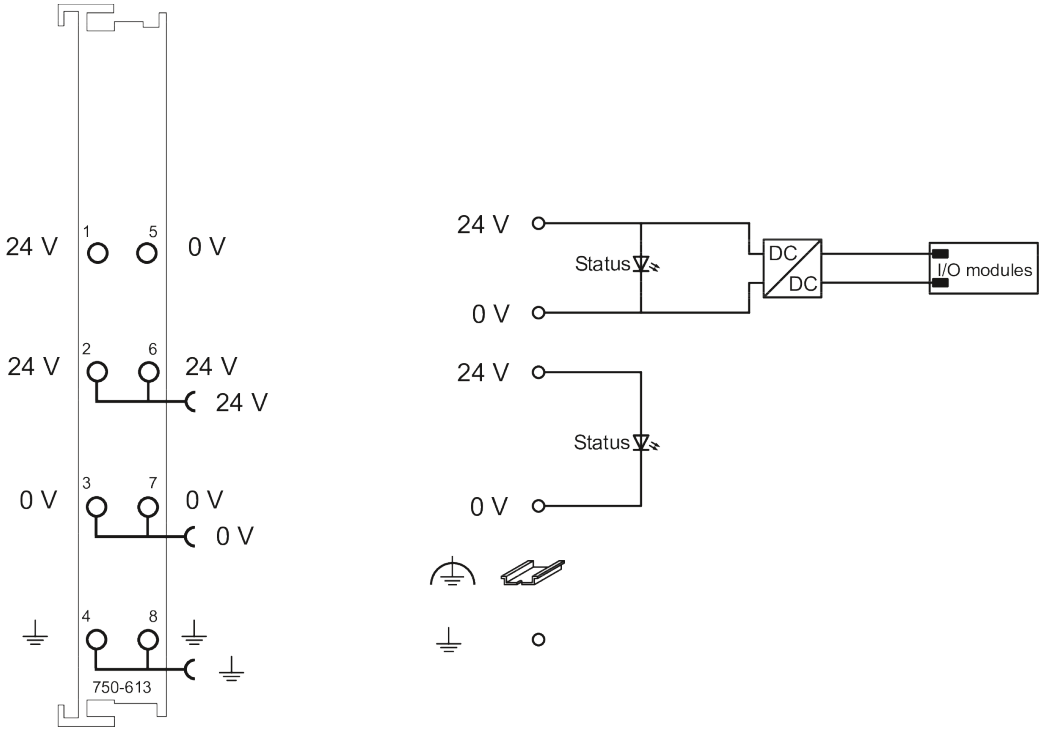

Figure 5: Schematic Circuit Diagram

4 Planning

This section provides helpful information for planing the use of the product in a node.

4.1 Compatibility

The power supply can be operated on all head stations of the WAGO I/O System 750/753.

4.2 Requirements for Wiring and Accessories

The system supply voltage must be fed in to the head station in parallel and protected by a common fuse.

All supply modules (head station and 750-613 supply module) must be reset simultaneously by switching the system power off and on!

Field power supply must be fed in from an external source.

When using the supply module, pay special attention to the permissible voltage of the subsequent I/O modules.

Power supply concepts and the node structure, e.g., for certified operation of the supply module in shipbuilding or onshore/offshore applications, can be found in the 🕮 **System Manual I/O System 750/753**.

5 Service

5.1 System Reset

The system can be reset by switching the system power off and back on. Make sure that this occurs simultaneously for all supply modules (head station and 750-613 Power Supply Module)!

6 Appendix

6.1 Technical Data, Approvals, Guidelines and Standards

Note

Subject to changes!

Please also observe the further product documentation! You can generate the current datasheet at any time at: www.wago.com /<item number>.

See also

Data sheet 750-613 [▶ 13]

Data Sheet | Item Number: 750-613
System Power Supply; 24 VDC
https://www.wago.com/750-613

This internal system supply module increases the capacity of the system supply by 2 A for fieldbus nodes with high current requirements (sum of the internal current consumption of the I/O modules).

If required, additional system supply modules with bus power supply can be used.

The module also supplies field-side power to the adjacent modules via the power jumper contacts.

Technical data

Signal type	Voltage
Signal type (voltage)	24 VDC
Supply voltage (system)	24 VDC (-25 … +30 %); via pluggable connector (CAGE CLAMP® connection)
Input current (typ.) at nominal load (24 V)	500 mA
Power supply efficiency (typ.) at nominal load (24 V)	90 %
Supply voltage (field)	24 VDC (-25 … +30 %); via power jumper contacts (power supply via CAGE CLAMP® connection; transmission (field-side supply voltage only) via spring contact
Total current (system supply)	2000 mA
Current carrying capacity (power jumper contacts)	10 A
Number of outgoing power jumper contacts	3
Isolation	500 V system/field
Indicators	LED (A, B) green: operating voltage status: system, power jumper contacts

Connection data

Connectable conductor materials	Copper
Connection type 1	System/field supply
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection technology: field supply	6 x CAGE CLAMP®
Connection technology: system supply	2 x CAGE CLAMP®

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	1.57 MJ
Weight	55 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	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, marine applications
EMC emission of interference	per EN 61000-6-4, marine applications
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

Product classification

UNSPSC	39121004

Environmental Product Compliance

CAS-No.	12060-00-3 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 titanium oxide (PbTiO3)
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	4b470f9f-363b-47f8-bcb5-d064fad8d40d
SCIP notification number (Belgium)	d551d1d7-2779-4755-93c5-f5272ebd9689
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SCIP notification number (Romania)	ed10644a-822a-4837-904d-2f714f9239d2
SCIP notification number (Sweden)	90842d3b-d570-4d2b-82e7-187d29460397

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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-SPP750

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	22-2219060
BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	-	13453/E0 BV
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001

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)
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	TÜV 12.1297 X
KTL Korea Testing Laboratory	KOSHA Article 34, IEC60079-0	20-KA4BO-0096X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec

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