TECHDOCS

WAGO I/O System 750/753

Filter module for field-side power supply (surge); 24 VDC; higher isolation; without power jumper contacts

750-624/020-001

Product manual
Valid as of HW version 01 | FW version --
2724365579 | 1 | en-US | 2025-12-19 11:53

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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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Table of Contents

1 Provisions

1.1 Scope of Applicability

This document applies to the following product:

750-624/020-001 (24V DC Field Supply Filter /HI /nc) Filter module for field-side power supply (surge); 24 VDC; higher isolation; without power jumper contacts.

From hardware version	01
From firmware version	--
Product detail page	**www.wago.com/750-624/020-001**

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

The filter module is used for providing the supply voltage to a fieldbus node.

Use of filter modules also allows the WAGO I/O System 750/753 to be used in shipbuilding or offshore/onshore areas (e.g., platforms and loading facilities). This is demonstrated by compliance with the requirements of leading classification agencies, such as the Germanischer Lloyd and Lloyd's Register. The filter module ensures proper (certified) system operation.

The filter module protects against high-energy disturbances on the DC supply lines due to switching overvoltages caused by inductive loads. It contains transient protection for the field supply.

This version of the filter module is optimized for use in systems with insulation monitoring.

The filter module has no blade contacts to receive a supply voltage; it is powered by an external source via the CAGE CLAMP® connections. The filter module provides the 24 V field supply voltage for the field level to downstream I/O modules via its spring contacts.

The filter module contains overvoltage protection for the field supply voltage via the power jumper contacts (spring contacts).

A green status LED indicates the status of the operating voltage at the power jumper contacts.

This variant is NOT intended for marine-certified operation in conjunction with an Ex i supply module (item no.: 750-625/000-001) or for use with PROFIsafe modules!

3 Properties

3.1 View

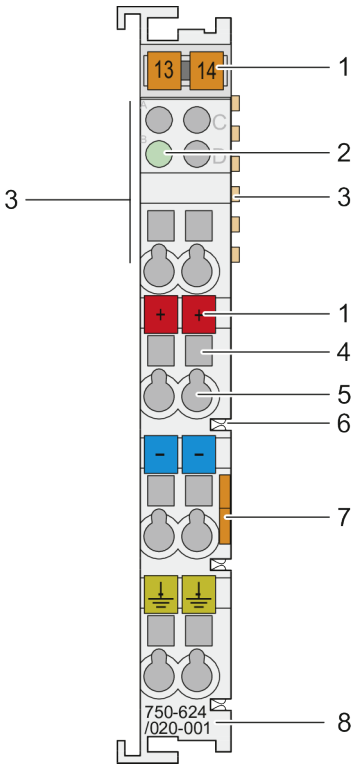

Figure 1: View

1	Slot for Mini-WSB (optional)	🕮 System Manual I/O System 750/753
2	Indicator	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

A green status LED indicates the status of the operating voltage at the power jumper contacts.

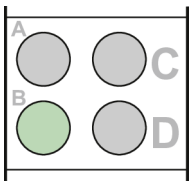

Figure 2: Indicator

Designation	LED	Status	Function
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

3.3 Wiring Interface

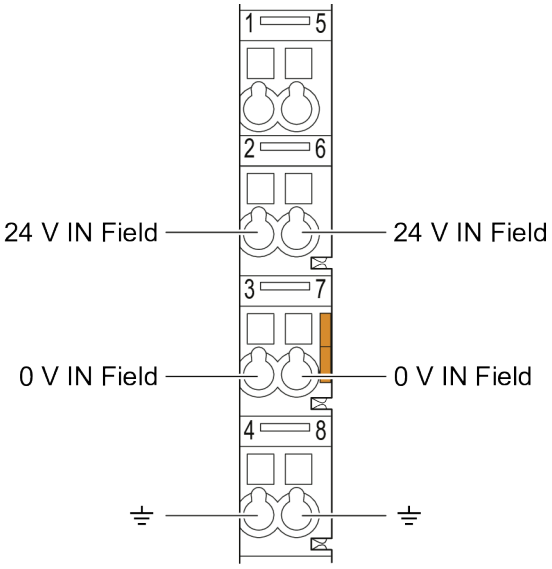

Figure 3: CAGE CLAMP® Connections

Designation	Connection	Function
24 V IN, field	2	Feed-in, field supply, 24 VDC
	6	
0 V IN, field	3	Feed-in, field supply, 0 VDC
	7	
Ground	4	Feed-in, field supply, 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**.

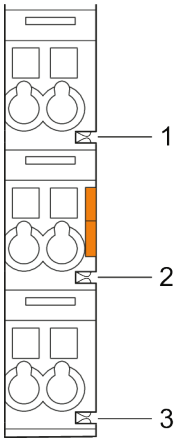

Figure 4: Power Jumper Contacts

No.	Type
1	Groove with spring contact
2	
3	

Arrangement in the Bus Node

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

3.5 Circuit Diagram

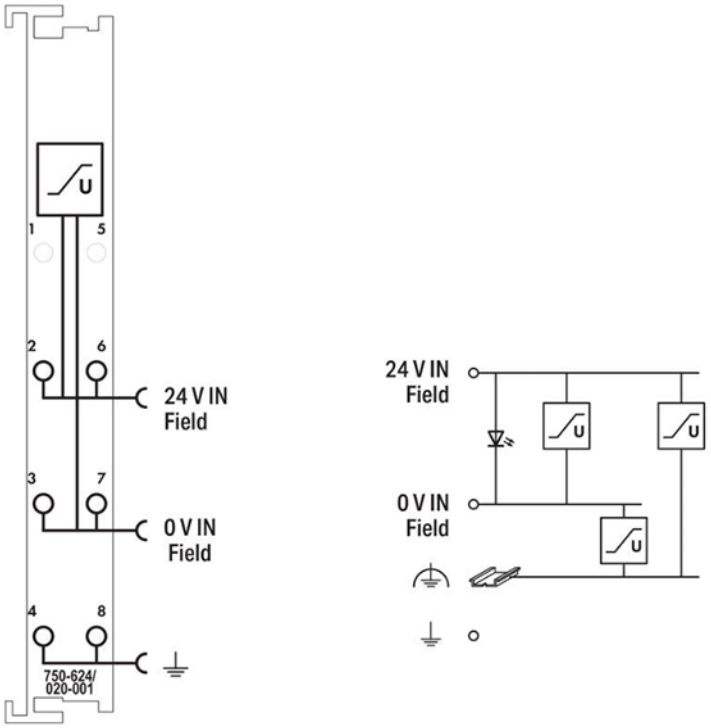

Figure 5: Circuit Diagram

For information on the system power supply, please see 🕮 **System Manual I/O System 750/753**.

4 Planning

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

4.1 Compatibility

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

4.2 Requirements for Wiring and Accessories

The field supply filter is used to provide the supply voltage directly (no additional supply module required) and offers additional protection against high-energy disturbances on the DC supply lines.

This version of the filter module is optimized for use in systems with insulation monitoring.

This variant is NOT intended for marine-certified operation in conjunction with an Ex i supply module (item no.: 750-625/000-001) or for use with PROFIsafe modules!

For power supply concepts and the node structure, e.g., for certified operation of the filter module in shipbuilding or onshore/offshore applications, see the System Manual I/O System 750/753.

5 Appendix

5.1 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 750-624/020-001 [▸ 12]

Data Sheet | Item Number: 750-624/020-001

Filter module for field-side power supply (surge); 24 VDC; Higher isolation; Without power jumper contacts

https://www.wago.com/750-624/020-001

Technical data

Signal type	Voltage
Signal type (voltage)	24 VDC
Supply voltage (system)	5 VDC; via data contacts
Supply voltage (field)	24 VDC (-25 … +30 %); via pluggable connector (CAGE CLAMP® connection)
Number of outgoing power jumper contacts	3
Use	Marine-certified operation in conjunction with 750 Series I/O Modules
Indicators	LED (B) green: operating voltage status

Connection Data

Connectable conductor materials	Copper
Connection type	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®

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	0.764 MJ
Weight	45.9 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 61000-6-3, 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	39121610
eCl@ss 10.0	27-24-26-10
eCl@ss 9.0	27-24-26-10
ETIM 9.0	EC001600
ETIM 10.0	EC001600
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1317-36-8 25550-51-0 7439-92-1
REACH Candidate List Substance	4-Methyl-1,2-cyclohexanedicarboxylic anhydride Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I
SCIP notification number (Austria)	bc3092de-477d-4be9-991d-7806576bcbb4
SCIP notification number (Belgium)	b1e69e4f-115c-4d0c-ae1a-e2f5acd7b533
SCIP notification number (Bulgaria)	370aa31f-df16-499c-8c93-132a86e8278a
SCIP notification number (Czech Republic)	46570574-39a2-434e-8163-c917a024ba6c
SCIP notification number (Denmark)	5ad90996-e881-475c-8f61-72b8f4e4505a
SCIP notification number (Finland)	6a550f76-19d0-476b-968f-fc7456773202
SCIP notification number (France)	a2a67236-98f8-4e11-aa88-6a0ab6a56cff
SCIP notification number (Germany)	337b59ed-8733-4c8f-a54c-5d0234345934
SCIP notification number (Hungary)	e5f0110c-bc59-480f-a63b-c43089c722c2
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SCIP notification number (Netherlands)	230d697f-806b-4de8-9f11-fbfe0339e337
SCIP notification number (Poland)	56068ad8-cc64-469d-b1b0-d111d522add2
SCIP notification number (Romania)	75bfa0f6-31c1-4898-932e-ea99afc6f91a
SCIP notification number (Sweden)	8d6c5946-94ed-4679-961f-a8862a42568a

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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-IDE750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199

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
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
LR Lloyds Register EMEA	-	LR22180952TA
NK Nippon Kaiji Kyokai	Guidel. Perform. Type Approvals	TA25276M
PRS Polski Rejestr Statków	-	TE/1101/880590/23

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
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

List of Figures

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