

WAGO → I/O → SYSTEM 750

**Fieldbus Independent
I/O Modules**

**Trimming Module/1k/±12V DC
750-608**



Manual

Preliminary Version 2003-11-20

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Every conceivable measure has been taken to ensure the correctness and completeness of this documentation. However, as errors can never be fully excluded, we would appreciate any information or ideas at any time.

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We wish to point out that the software and hardware terms as well as the trademarks of companies used and/or mentioned in the present manual are generally trademark or patent protected.

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1 Important Comments

To ensure fast installation and start-up of the units described in this manual, we strongly recommend that the following information and explanations are carefully read and abided by.

1.1 Legal Principles

1.1.1 Copyright

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1.1.2 Personnel Qualification

The use of the product detailed in this manual is exclusively geared to specialists having qualifications in PLC programming, electrical specialists or persons instructed by electrical specialists who are also familiar with the valid standards. WAGO Kontakttechnik GmbH declines all liability resulting from improper action and damage to WAGO products and third party products due to non-observance of the information contained in this manual.

1.1.3 Intended Use

For each individual application, the components supplied are to work with a dedicated hardware and software configuration. Modifications are only permitted within the framework of the possibilities documented in the manuals. All other changes to the hardware and/or software and the non-conforming use of the components entail the exclusion of liability on part of WAGO Kontakttechnik GmbH.

Please direct any requirements pertaining to a modified and/or new hardware or software configuration directly to WAGO Kontakttechnik GmbH.

1.2 Symbols



Danger

Always abide by this information to protect persons from injury.



Warning

Always abide by this information to prevent damage to the device.



Attention

Marginal conditions must always be observed to ensure smooth operation.



ESD (Electrostatic Discharge)

Warning of damage to the components by electrostatic discharge. Observe the precautionary measure for handling components at risk.



Note

Routines or advice for efficient use of the device and software optimization.



More information

References on additional literature, manuals, data sheets and INTERNET pages

1.3 Number Notation

Number Code	Example	Note
Decimal	100	normal notation
Hexadecimal	0x64	C notation
Binary	'100' '0110.0100'	Within ', Nibble separated with dots

1.4 Safety Notes



Attention

Switch off the system prior to working on bus modules!

In the event of deformed contacts, the module in question is to be replaced, as its functionality can no longer be ensured on a long-term basis.

The components are not resistant against materials having seeping and insulating properties. Belonging to this group of materials is: e.g. aerosols, silicones, triglycerides (found in some hand creams).

If it cannot be ruled out that these materials appear in the component environment, then additional measures are to be taken:

- installation of the components into an appropriate enclosure
 - handling of the components only with clean tools and materials.
-



Attention

Cleaning of soiled contacts may only be done with ethyl alcohol and leather cloths. Thereby, the ESD information is to be regarded.

Do not use any contact spray. The spray may impair the functioning of the contact area.

The WAGO-I/O-SYSTEM 750 and its components are an open system. It must only be assembled in housings, cabinets or in electrical operation rooms. Access must only be given via a key or tool to authorized qualified personnel.

The relevant valid and applicable standards and guidelines concerning the installation of switch boxes are to be observed.



ESD (Electrostatic Discharge)

The modules are equipped with electronic components that may be destroyed by electrostatic discharge. When handling the modules, ensure that the environment (persons, workplace and packing) is well grounded. Avoid touching conductive components, e.g. gold contacts.

1.5 Scope

This manual describes the System Module 750-608 Trimming Module/1k/±12V DC of the modular WAGO-I/O-SYSTEM 750.

Handling, assembly and start-up are described in the manual of the Fieldbus Coupler. Therefore this documentation is valid only in the connection with the appropriate manual.

2 I/O Modules

2.1 System Modules

2.1.1 750-608 [Trimming Module/1k/±12V DC]

Trimming module DC ±12V

2.1.1.1 View

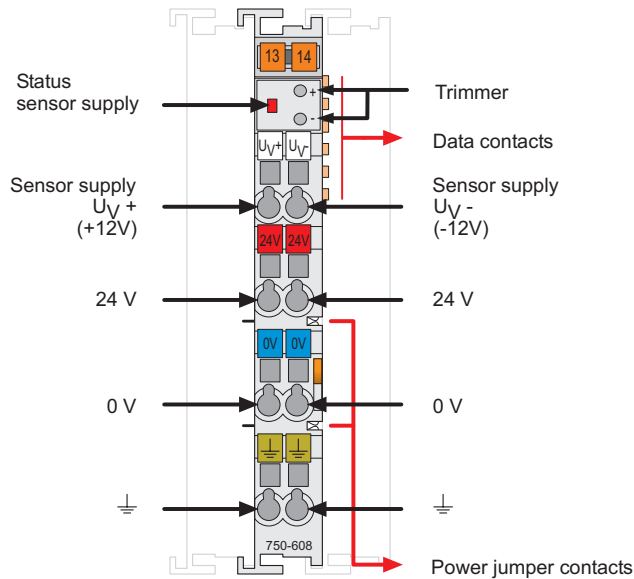


Fig. 2.1.1-1: Trimming module 750-608

g060800e

2.1.1.2 Description

The trimming module 750-608 is used to supply an external potentiometer with a balanced DC voltage. A DC/DC converter generates the ±12 V output potential from the 24 V input voltage.

Two built-in trimmers allow to change the +12 V - or -12V output resistance in order to adjust the operating point of the potentiometer.

The power supply for the field side is looped through to the following IO modules. The contact is made automatically when added to the fieldbus node via internal power jumper contacts.



Note

The maximum current of the internal power jumper contacts is 10 A. When configuring the system it is important not to exceed the maximum/sum current. However, if such a case should occur, another supply module must be added.

A red error LED indicates a primary short circuit of the DC/DC converter.

Any configuration of the input modules is possible when designing the fieldbus node. Grouping of module types is not necessary.

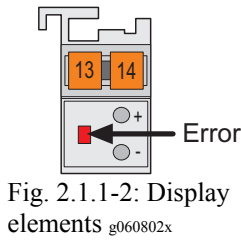


Note

If the trimmer module 750-608 is to be used in shipbuilding applications, the fieldbus node design must correspond to the one described in chapter 2.1.1.6 ‘Power supply’.

The trimmer module 750-608 can be used with all couplers/controllers of the WAGO-I/O-SYSTEM 750.

2.1.1.3 Display elements



LED	Designation	State	Function
Error red	State of DC/DC-converter	off	Normal operation
		on	Primary short circuit of the DC/DC-converter

2.1.1.4 Schematic Diagram

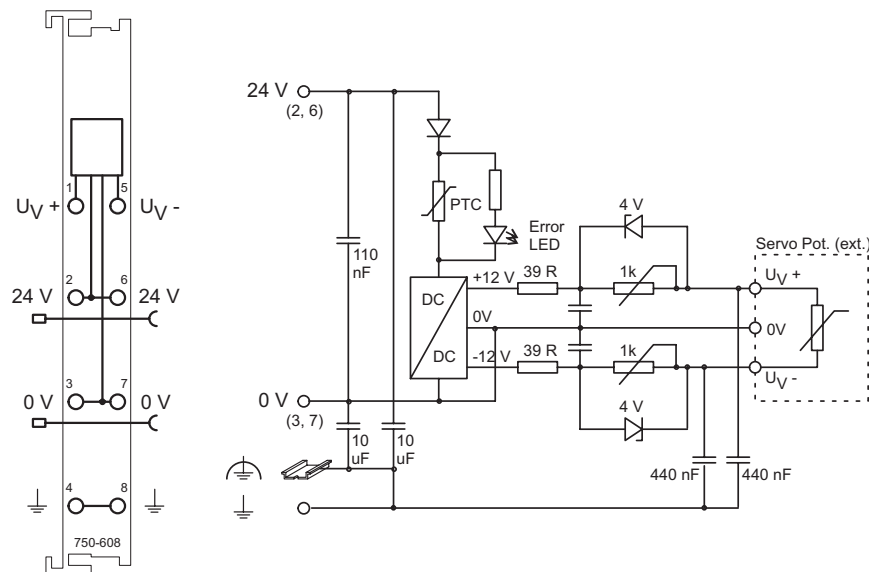


Fig. 2.1.1-3: Trimming module 750-608

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2.1.1.5 Technical Data

Module Specific Data	
Power supply	DC 24 V (-25% ... +30%)
Input current _{max.}	100 mA
Output voltage	DC ±12 V (±4%)
Output noise	100 mV _{p-p}
Residual output ripple at 50 Hz	< 15% of input ripple ²⁾
Output resistance	max 1 kΩ adjustable
Output current	34 mA
Voltage via power jumper contacts _{max.}	DC 24 V (-25% ... +30%)
Current via power jumper contacts _{max.}	10 A
Dimensions (mm) W x H x L	12 x 64* x 100 (* from upper edge of DIN 35 rail)
Weight	ca. 52 g
Standards and Regulations (See Chapter 2.2 of Coupler/Controller Manual)	
Approvals (See Chapter 2.2 of Coupler/Controller Manual)	
Conformity marking	CE

¹⁾ Observe complementary power supply instructions!

²⁾ In order to minimize power supply hum, an input module with a low frequency input filter, for example 750-476 should be used.

2.1.1.6 Power supply

The following illustrates the power supply of a fieldbus node of the WAGO-I/O-SYSTEM 750 for the use in accordance with GL / LR when using the trimmer module 750-608.

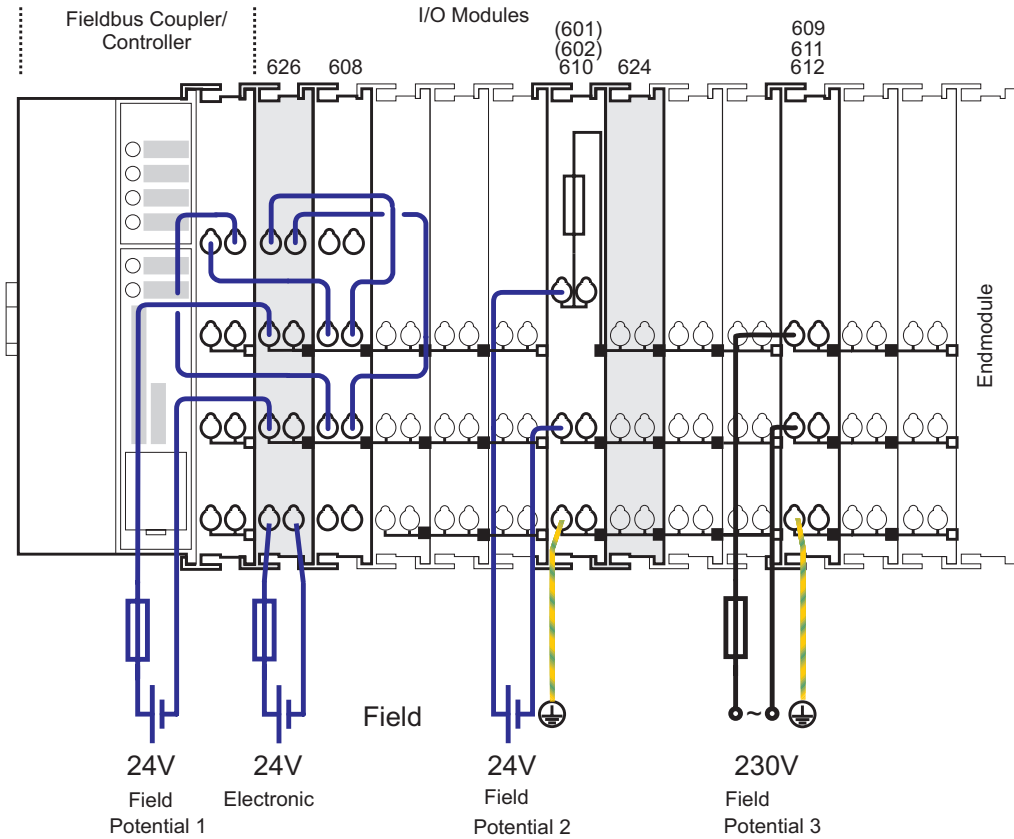


Abb. 2.1.1-4: Power supply

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Note

When used in shipbuilding applications, the trimmer module 750-608 must only be used in connection with a filter module 750-626. The supply voltage for the trimmer module must be connected to the system supply output (Out) of the filter module.

The system supply voltage for the appropriate coupler /controller can be derived using the additional power supply connections (24 V, 0 V) of the trimmer module.



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