B&R 3IF661.9

01 Function and selected configuration

Product function

B&R 3IF661.9 connects a System 2005 station to a PROFIBUS master through a shielded RS485 bus while retaining a locally selected station address.

Selected configuration

The IF661 interface is installed in the designated slot of a CP260, IF260 or IF060 host. It uses an SPC3 PROFIBUS controller with 1.5 KB of integrated RAM and acts as a DP slave rather than a bus master.

Functional path

System 2005 host	IF661 DP slave	Isolated RS485	PROFIBUS master

Network role	PROFIBUS DP slave
Physical interface	Electrically isolated RS485
Connector	Female 9-pin D-sub

The isolated RS485 interface uses a female 9-pin D-sub connector. Two BCD switches select the station number, and RXD/TXD indicators show receive and transmit activity. Cable length must be selected for the network transmission rate.

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02 Technical operating envelope

Network role	PROFIBUS DP slave
Physical interface	Electrically isolated RS485
Connector	Female 9-pin D-sub
Protocol controller	SPC3
Integrated controller RAM	1.5 KB
Host supply	5 V DC

Maximum power consumption	2 W
Station address selection	Two BCD switches
12 Mbit/s cable length	Less than 100 m
1.5 Mbit/s cable length	Less than 200 m
500 kbit/s cable length	Less than 400 m
187.5 kbit/s cable length	Less than 1000 m

The technical values apply to this model in the specified installation and configuration.

Signal interpretation

The isolated RS485 interface uses a female 9-pin D-sub connector. Two BCD switches select the station number, and RXD/TXD indicators show receive and transmit activity. Cable length must be selected for the network transmission rate.

Interface boundary

An external T-connector with the correct terminating resistor is required at the bus end. Shield contact, data-line polarity and station addressing must be checked together; replacing the interface alone does not correct an incorrectly terminated network.

Which connector carries the PROFIBUS signals on 3IF661.9?

A female 9-pin D-sub carries the isolated RS485 connection. Pin 3 is DATA and pin 8 is the complementary data signal.

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03 System integration and applications

System 2005 slave integration

Exchange process data between a compatible local host and the PROFIBUS DP master.

Legacy interface maintenance

Restore a CP260, IF260 or IF060 station using its retained bus address and configuration.

High-speed PROFIBUS segment

Operate a short, correctly terminated segment at the selected baud rate.

Communication fault isolation

Use station addressing, bus polarity and RXD/TXD activity to distinguish local interface issues from network wiring faults.

System and supply context

The profibus interface is applied in the System 2005 host / IF661 DP slave / Isolated RS485 / PROFIBUS master arrangement. Select associated equipment for the actual channel or installation.

Application boundary

The technical values apply to this model in the specified installation and configuration. The examples below address the stated product function.

Which System 2005 hosts can carry 3IF661.9?

The designated hosts are CP260, IF260 and IF060. Verify the installed host and slot before replacing the interface.

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04 Engineering selection decisions

Can 3IF661.9 control a PROFIBUS network as the master?

No. IF661 is a PROFIBUS DP slave interface; the bus master must be provided elsewhere in the network.

How is the station number set on 3IF661.9?

Two BCD switches set the station number. Preserve the assigned address and check that no other slave uses it.

What do the RXD and TXD indicators on 3IF661.9 show?

They indicate receive and transmit activity respectively. Activity alone does not prove that all configured process data are valid.

Where is bus termination provided for 3IF661.9?

Termination is provided through the external T-connector arrangement. Enable the appropriate terminating resistor at the physical ends of the bus.

Keep the shield connection intact	Maintain the shield connection through the connector housing and prescribed grounding arrangement.
Match segment length to baud rate	Compare the actual segment length with its operating baud rate.

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05 Configuration boundary and references

Lifecycle and support

The current manufacturing and factory-support phase of 3IF661.9 is unconfirmed.

Replacement assessment

Preserve network role PROFIBUS DP slave, physical interface Electrically isolated RS485, connector Female 9-pin D-sub. Check network role and physical interface against the installed configuration.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; use it together with the applicable manufacturer instructions.

Technical basis

B&R System 2005 User Manual V4.0.

Related product navigation

- B&R X67SM2436
- B&R 8BVI0055HWD0.000-1

These are related references, not confirmed substitutes or an automatically approved assembly.

Product enquiries