

Rexroth Inline Segment Terminal

R911170562
Edition 01

R-IB IL 24 SEG-PAC

Segment Terminal Without Fuse
Opens New Segment Circuit Within Main Circuit

11/2007



Description

This terminal is designed for use within an Inline station.

It is used to create a protected partial circuit (segment circuit) within the main circuit.

Features



This terminal does not have an INTERBUS protocol chip and therefore is not an INTERBUS device.

- Creation of a partial circuit within the main circuit using an external jumper or switch
- Diagnostic indicators



This data sheet is only valid in association with the application descriptions for the Rexroth Inline system (see "[Documentation](#)" on [page 2](#)).



Make sure you always use the latest documentation.

It can be downloaded at www.boschrexroth.com.

Ordering Data

Products

Description	Type	MNR	Pcs./Pck.
Rexroth Inline segment terminal without fuse, including accessories (connector and labeling field)	R-IB IL 24 SEG-PAC	R911170947	1

Documentation

Description	Type	MNR	Pcs./Pck.
"Automation Terminals of the Rexroth Inline Product Range" application description	DOK-CONTRL-ILSYSINS***-AW...-DE-P	R9111317017	1
"Configuring and Installing the Rexroth Inline Product Range for INTERBUS" application description	DOK-CONTRL-ILSYSPRO***-AW...-DE-P	R9111317022	1



For additional ordering data (accessories), please refer to the product catalog at www.boschrexroth.com.

Technical Data

General Data

Housing dimensions (width x height x depth)	12.2 mm x 120 mm x 72 mm (with connector)
Weight	57.7 g (with connector)
Ambient temperature (operation)	-25°C to +55 °C
Ambient temperature (storage/transport)	-25°C to +85°C
Permissible humidity (operation/storage/transport)	10% to 95%, according to DIN EN 61131-2
Air pressure (operation/storage/transport)	70 kPa to 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20 according to IEC 60529
Class of protection	Class 3 according to IEC 61140
Connection data for Inline connector	
Connection method	Spring-cage terminals
Conductor cross-section	0.2 mm ² to 1.5 mm ² (solid or stranded), 24 - 16 AWG

Interface

Local Bus	Through data routing
-----------	----------------------

Transmission Speed

Can be used in Inline stations with a transmission speed of either	500 kbps or 2 Mbps
--------------------------------------------------------------------	--------------------

Power Consumption

Communications power U_L	–
Current consumption at U_L	–
Power consumption at U_L	–
Main voltage U_M	24 V DC (nominal value)
Nominal current consumption at U_M	8.0 A (maximum permissible total current in the potential jumpers U_M and U_S)

I/O Supply Using Bus Coupler/Supply (U_M)

Connection method	Via potential jumpers
-------------------	-----------------------

I/O Supply Using Bus Coupler/Supply (U_M)

Connection method	Via potential jumpers
-------------------	-----------------------

24 V I/O Supply (U_M , U_S)

The main voltage U_M is supplied by the bus coupler or by a power terminal. The segment voltage U_S is provided at this segment terminal by connecting a switch or a jumper on the segmentation level. Connections for the supply voltage are not required on the segment terminal. Terminal points 1.1, 2.1, 1.2, 2.2 must not be used for voltage supply, but solely for the connection of a switch or a jumper on the segmentation level, and for measuring purposes.

Safety Equipment

Overload/short circuit in the segment circuit	No
Surge voltage	Protective elements in the power terminal or the bus coupler
Protection against polarity reversal	Protective elements in the power terminal or the bus coupler

Electrical Isolation/Isolation of the Voltage Areas**CAUTION**

To provide electrical isolation between the logic level and the I/O area, it is necessary to supply these areas via the bus coupler or via the bus coupler and a power terminal from separate power supply units. Interconnection of the power supply units in the 24 V area is not permitted. Please also observe the GND/PE connections on the power supply units (see also user manual).

Common Potentials

The 24 V main voltage, 24 V segment voltage, and GND have the same potential. FE is a separate potential area.

Separate Potentials in the System Consisting of Bus Coupler/Power Terminal and I/O Terminal**– Test Distance**

5 V supply incoming remote bus/7.5 V supply (bus logic)
5 V supply outgoing remote bus/7.5 V supply (bus logic)
7.5 V supply (bus logic)/24 V supply (I/O)
24 V supply (I/O)/functional earth ground

– Test Voltage

500 V AC, 50 Hz, 1 min
500 V AC, 50 Hz, 1 min
500 V AC, 50 Hz, 1 min
500 V AC, 50 Hz, 1 min

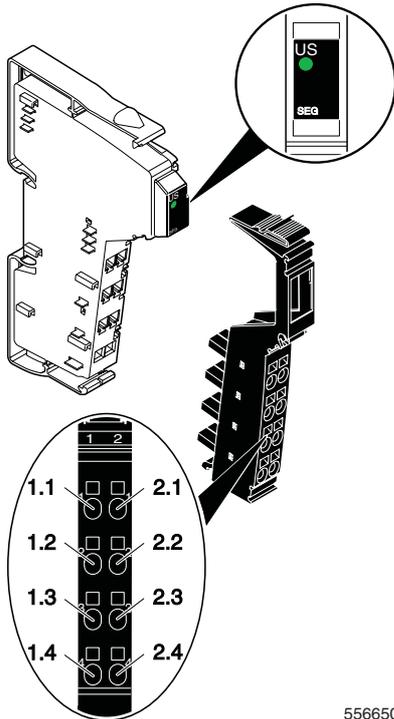
Error Messages to the Higher-Level Control or Computer System

None

Approvals

For the latest approvals, please visit www.boschrexroth.com.

Local Status Indicators and Terminal Point Assignment



55665002

Fig. 1 Terminal with appropriate connector

Local Status Indicators

Des.	Color	Meaning
US	Green	24 V supply (in the segment circuit U_S)

Function Identification

Black

Terminal Point Assignment



CAUTION

Terminal points 1.1, 2.1, 1.2, and 2.2 must not be used for voltage supply, but solely for the connection of a switch or a jumper on the segmentation level, and for measuring purposes.

Terminal Point	Assignment
1.1, 2.1	Segment voltage U_S Connection of a switch or a jumper on the segmentation level
1.2, 2.2	Main voltage U_M Connection of a switch or a jumper on the segmentation level
1.3, 2.3	GND of the supply voltages
1.4, 2.4	FE connection

Internal Basic Circuit Diagram

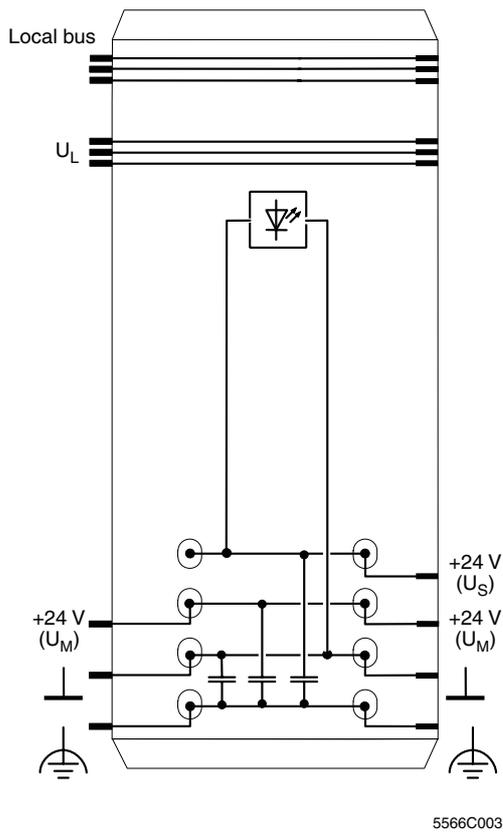


Fig. 2 Internal wiring of the terminal points

Key:



LED



Capacitive connection to functional earth ground (FE)



Other symbols used are explained in the application descriptions for the Rexroth Inline system (see "Documentation" on page 2).

Connection Example

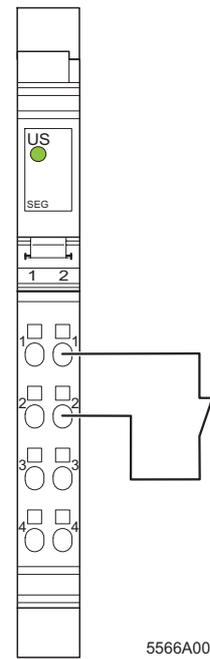


Fig. 3 Connecting a switch



The switch can be used to create a switched segment circuit.

If this is not needed for your specific application, you will have to jumper connections 1.1 and 1.2 or 2.1 and 2.2 to ensure that the segment circuit is supplied from the main circuit.

Notes:

DOK-CONTRL-
ILSEG/*****-KB01-EN-P

Bosch Rexroth AG
Electric Drives and Controls
P.O.Box 13 57
97803 Lohr, Germany
Bgm.-Dr.-Nebel-Str. 2
97816 Lohr, Germany
Tel. +49-(0) 93 52 - 40-50 60
Fax. +49-(0) 93 52 - 40-49 41
service.svc@boschrexroth.de
www.boschrexroth.com

All rights reserved. No part of this document may be reproduced or stored, processed, duplicated, or circulated using electronic systems, in any form or by any means, without the prior written authorization of Bosch Rexroth AG, Electric Drives and Controls. Violations shall give rise to claims for damages. The data specified above only serve to describe the product. They do not indicate any specific condition or suitability for a certain application. The information provided does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to natural wear and aging.

Reprint forbidden - subject to modifications