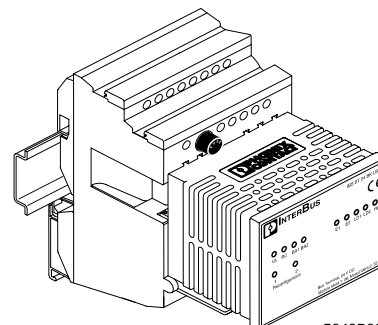


IBS ST (ZF) 24 BK LB-T

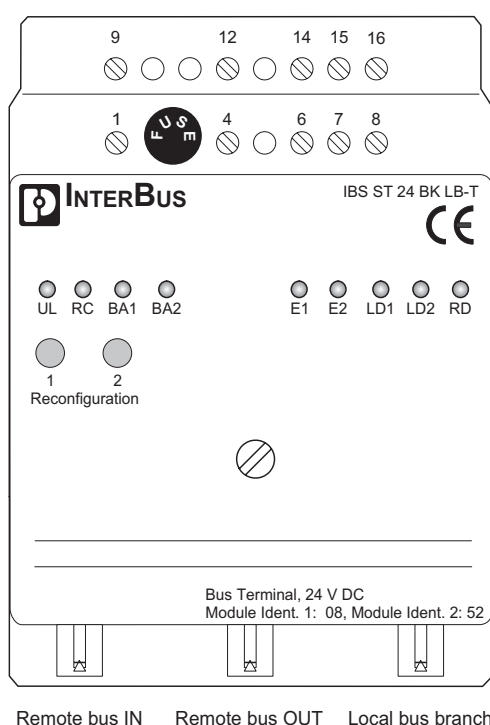
Bus Terminal Module With Local Bus Branch



Data Sheet 5049B

09/1999

5049B000



5049B001

Figure 1 IBS ST 24 BK LB-T module



This data sheet is intended to be used in conjunction with the IBS SYS PRO UM E Manual.



Ground the mounting rail. The module is grounded by snapping it onto the mounting rail.

Terminal Assignment

Terminals	Assignment
1	Supply voltage of the module
4	Supply voltage of the reconfiguration input 2 (optional)
6	Supply voltage of the alarm contact (optional)
8	Supply voltage of the reconfiguration input 1 (optional)
9	Ground contact of the module
12	Ground contact of the reconfiguration input 2
14	Ground contact of the alarm contact
16	Ground contact of the reconfiguration input 1

Local Diagnostic and Status Indicators

Des.	Color	Meaning
UL	Green	Supply voltage for the electronics module
RC	Green	Remote bus cable check
BA1/2	Green	Remote bus active
E1	Red	Error in the ST compact station (local bus group)
E2	Red	Error in the local bus branch
LD1	Red	ST compact station (local bus group) disconnected
LD2	Red	Local bus branch disconnected
RD	Red	Remote bus disconnected

IBS ST (ZF) 24 BK LB-T

Connection Example

Connection of the Supply Voltages and the Bus Cables

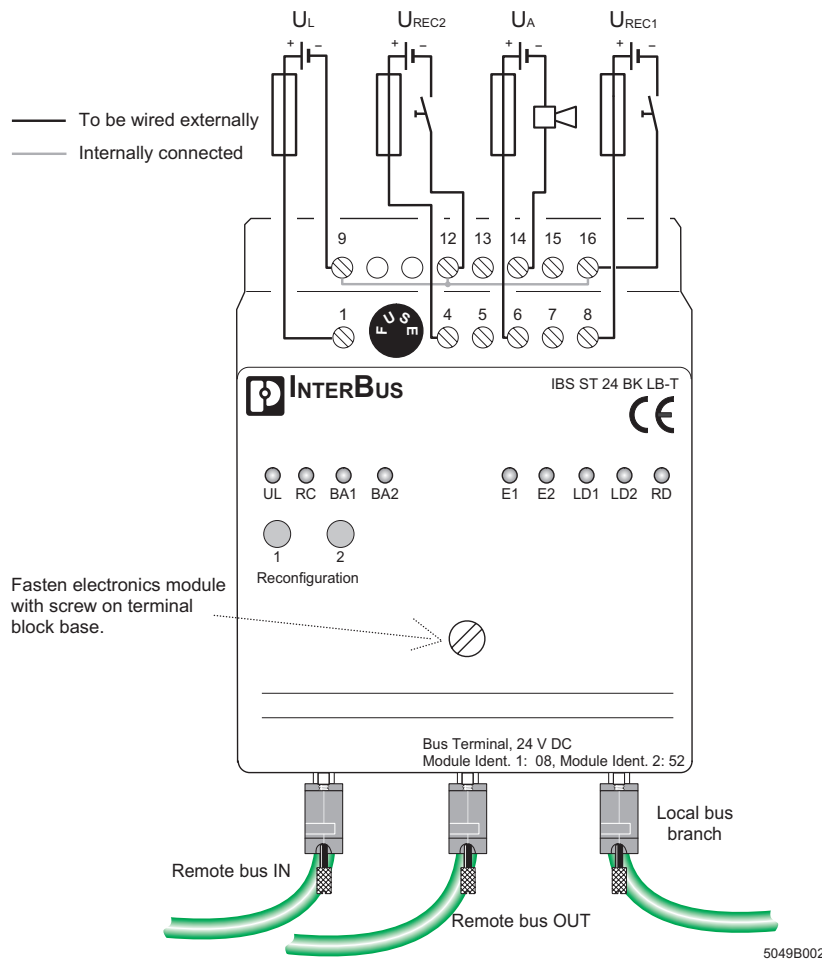


Figure 2 Connection of the supply voltage and bus cables

$U_{REC1/2}$: Voltage supply of the reconfiguration inputs (optional). These inputs can only be used together with group definitions. As the terminals 9, 12, and 16 are connected with each other, the reconfiguration inputs and the power supply are assigned to the same potential.

U_L : Power supply for the bus logic

U_A : Voltage supply for the alarm input (optional).

IBS ST (ZF) 24 BK LB-T

Functioning of the Alarm Contact

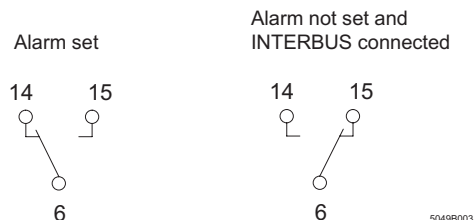


Figure 3 Functioning of the alarm contact

Programming Data

ID code	8 _{hex} , 8 _{dec}
ST compact station	34 _{hex} , 52 _{dec}
Local bus branch	
Length code	0 _{hex}
Input address area	0 bytes
Output address area	0 bytes
Parameter channel (PCP)	0 bytes
Register length (bus)	0 bytes
Programmable functions	
Disconnection of the ST compact station	Yes
Reset of the ST compact station	Yes
Disconnection of the outgoing remote bus	Yes
Reset of the outgoing remote bus	Yes
Monitoring of the incoming remote bus cable	Yes
Disconnection of local bus	Yes



The bus terminal module and the local bus branch are programmed like two individual bus terminal modules. Therefore, both ID codes must be entered in the address lists.

Assignment of the Reconfiguration Inputs

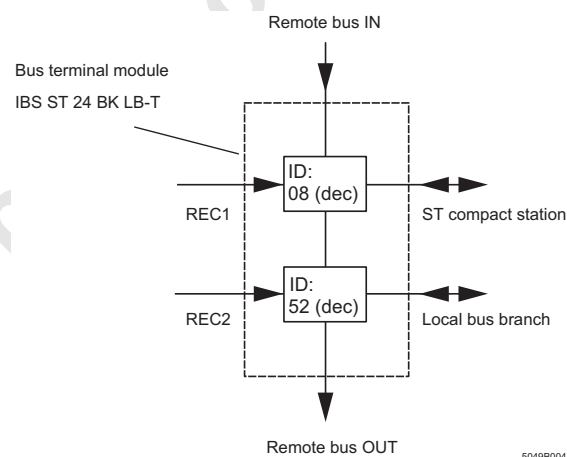


Figure 4 Assignment of the reconfiguration inputs

IBS ST (ZF) 24 BK LB-T

Technical Data

General	
Housing dimensions (width x height x depth)	81 mm x 117 mm x 116 mm (3.189 in. x 4.606 in. x 4.567 in.)
Permissible operating temperature	From 0°C to 55°C (32°F to 131°F)
Permissible storage temperature	From -20°C to 70°C (-4°F to +158°F)
Degree of protection	IP 20, DIN 40050, IEC 60529
Class of protection	Class 3 VDE 0106, IEC 60536
Humidity (operation)	30% to 75%, no condensation
Humidity (storage)	30% to 95%, no condensation
Air pressure (operation)	From 86 to 108 kPa, 1500 m (4921 ft.) above sea level
Air pressure (storage)	From 66 to 108 kPa, 3500 m (11483 ft.) above sea level
Electrical isolation	Test voltage
Incoming/outgoing remote bus	500 V AC, 1 min., 50 Hz
Incoming remote bus/local bus branch	500 V AC, 1 min., 50 Hz
Incoming remote bus/ST local bus	500 V AC, 1 min., 50 Hz
Supply voltage/ST local bus	500 V AC, 1 min., 50 Hz
Preferred installation position	Panel mounting
Protective ground	Via DIN rail
Weight	470 g, typical
Interfaces	
INTERBUS	
Incoming remote bus	9-pos. D-SUB male connector
Outgoing remote bus	9-pos. D-SUB female connector
ST interface	ST cable (supplied with the module)
Local bus	15-pos. D-SUB female connector (supply voltage is not carried in the local bus branch)
Number of ST modules that can be connected	8 (note the current load)
Maximum distance to the next remote bus device	400 m (1312 ft.)
Maximum distance to the next local bus device	1.5 m (3.280 ft.)

IBS ST (ZF) 24 BK LB-T

Interfaces	
Alarm contact	
Terminal points	6, 14, and 15 (see Figure 3)
Maximum voltage	30 V DC/AC
Maximum current	0.5 A
Reconfiguration inputs	
ST compact station	Pushbutton 1 (manual operation)
Local bus branch	Pushbutton 2 (manual operation)
Terminal points of the ST compact station	8 (+) and 16 (-)
Terminal points of local bus branch	4 (+) and 12 (-)
Nominal voltage $U_{REC1/2}$	24 V DC
Permissible voltage range	-30 V to 30 V (DC)
	Set: 13 V to 30 V (DC)
	Not set: -30 V to 1 V
Current consumption (set)	2 mA, typical
Power Consumption	
Communications power	9 V DC
I/O supply voltage U_S	24 V DC
Current consumption of U_S	
Without ST local bus modules	150 mA at 24 V, typical
Maximum	650 mA at 24 V, typical
Total current consumption of all I/O modules on the ST local bus	800 mA at 9 V, maximum
I/O Supply Voltage (U_S)	
Nominal value	24 V DC
Permissible ripple	3.6 V _{pp} within the permissible voltage range
Permissible voltage range (including ripple)	Operation: 20 V DC to 30 V DC

IBS ST (ZF) 24 BK LB-T

I/O Supply Voltage (U_S)	
Current consumption of U_S	
Without ST I/O modules	150 mA at 24 V, typical
Maximum	650 mA at 24 V, typical
Permissible total current consumption of all I/O modules	800 mA at 9 V, maximum
Surge voltage protection	Fuses in the base element IBS TR5 1 AT

Ordering Data

Description	Order Designation	Order No.
BK module (screw-clamp terminals)	IBS ST 24 BK LB-T	27 53 23 2
BK module (spring-clamp terminals)	IBS ST ZF 24 BK LB-T	27 50 77 2
Electronics module	IB STME 24 BK LB-T	27 53 24 5
Replacement terminal block (screw-clamp terminals)	IB STTB 24 BK LB-T	27 52 69 9
Replacement terminal block (spring-clamp terminals)	IB STTB ZF 24 BK LB-T	27 50 88 2

IBS ST (ZF) 24 BK LB-T

onlinecomponents.com

IBS ST (ZF) 24 BK LB-T

onlinecomponents.com

© Phoenix Contact 09/1999 TNR 92 65 66 8