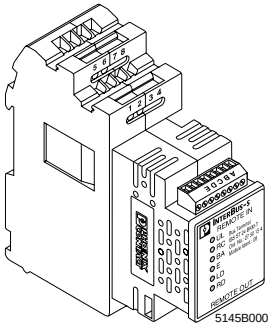
IBS ST (ZF) 24 BKM-T

Bus Terminal Module



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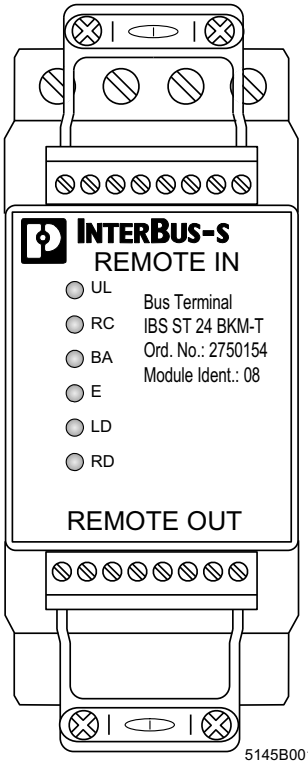

Figure 1 IBS ST 24 BKM-T module

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

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

Terminal Assignment

Terminal	Assignment
1	Supply voltage for the module
5	Ground contact of the module

Local Diagnostic and Status Indicators

Des.	Color	Meaning
UL	Green	Supply voltage for the electronics module
RC	Green	Incoming remote bus cable check
BA	Green	Remote bus active
E	Red	Error in the ST compact station (local bus group)
LD	Red	ST compact station (local bus group) disconnected
RD	Red	Remote bus out disconnected

Bus connection with remote bus cable: The remote bus cable must be fitted with the MINI-COMBICON male connectors supplied with the module. Plug the connectors into the corresponding terminal strips (Figure 2), the keying tabs point towards the front plate of the bus terminal. REMOTE IN designates the incoming remote bus, REMOTE OUT the outgoing remote bus. The module supply voltage U_S must be provided via bus terminal contacts 1 (+) and 5 (-), as it is not supplied via the bus cable.

Connection Example

Connection of the Supply Voltage and Bus Cables

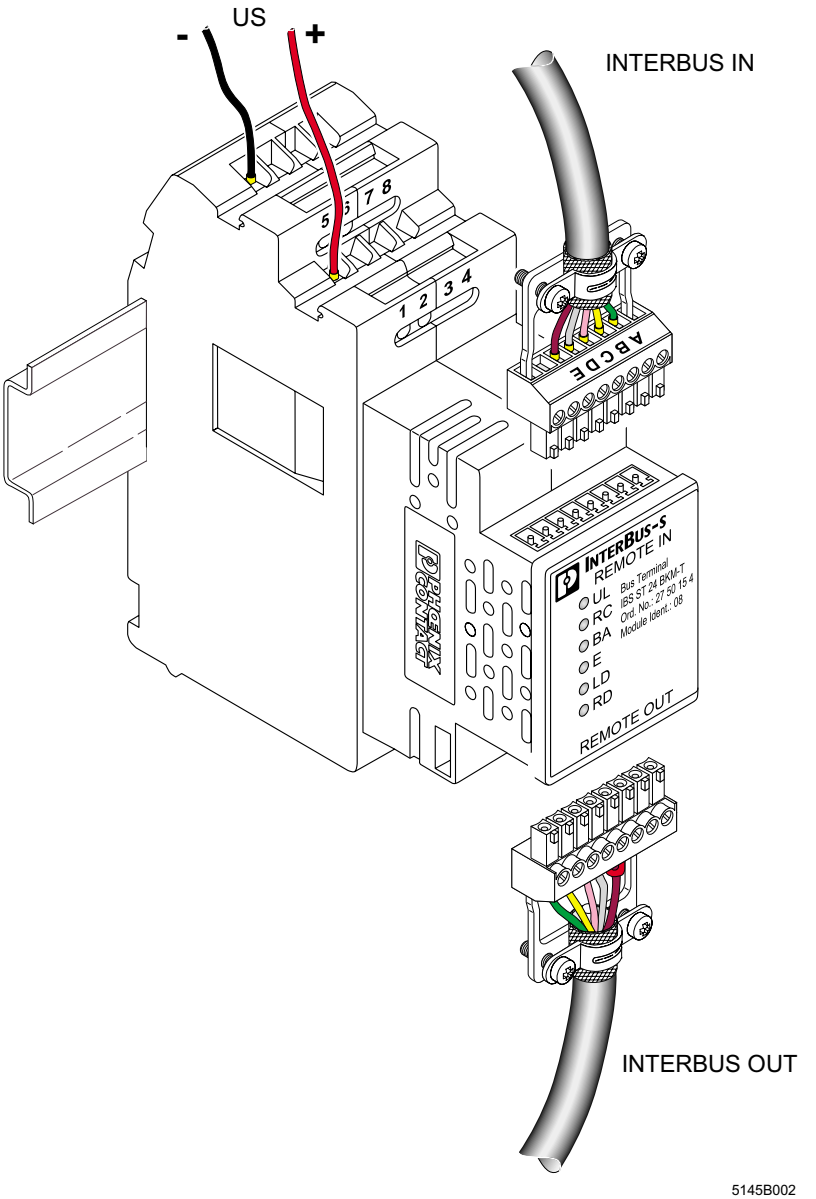

Figure 2 Connection of the supply voltage and bus cables

Pin Assignment of the Remote Bus Connector

REMOTE IN								
Pin	1	2	3	4	5	6	7	8
Terminal designation		A	B	C	D	E		
Signal	Shield	$\overline{DO}$	DO	$\overline{DI}$	DI	COM	Not used	Shield
Wire color		Green	Yellow	Pink	Gray	Brown		

REMOTE OUT								
Pin	1	2	3	4	5	6*	7*	8
Terminal designation		F	G	H	J	K*	L*	
Signal	Shield	$\overline{DO}$	DO	$\overline{DI}$	DI	COM	RBST	Shield
Wire color		Green	Yellow	Pink	Gray	Brown		

* Ensure that a jumper is installed between contacts K and L of the **outgoing** remote bus connector, if the remote out is used.

Ensure that on the bus terminal module, the ST cable for the local bus **is connected before the module is snapped** onto the mounting rail, as the terminal block base and the module electronics are not pluggable.

Programming Data

ID code	8_{hex} (8_{dec})
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 the incoming remote bus cable	Yes

Technical Data

General	
Housing dimensions (width x height x depth)	44 mm x 117 mm x 116 mm (1.732 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 kPa to 108 kPa, 1500 m (4921.26 ft.) above sea level
Air pressure (storage)	From 66 kPa to 108 kPa, 3500 m (11,482.94 ft.) above sea level
Electrical isolation	
Between incoming and outgoing remote bus	500 V AC test voltage, 50 Hz, 1 min.
Between incoming remote bus and ST local bus	500 V AC test voltage, 50 Hz, 1 min.
Emitted interference	EN 50081-2, Class A
Preferred installation position	Panel mounting (on a horizontally mounted DIN rail)
Protective Ground Connection	Via DIN rail
Weight	200 g, typical

Interfaces	
INTERBUS	
Incoming remote bus	8-pos. MINI-COMBICON connector
Outgoing remote bus	8-pos. MINI-COMBICON connector
ST interface	ST cable
Number of ST modules that can be connected	4 (note the current load)
Supply current for the local bus	500 mA

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	350 mA at 24 V, typical
Total current consumption of all I/O modules at the ST local bus	500 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
Current consumption of U_S	
Without ST local bus modules	150 mA at 24 V, typical
Maximum	350 mA at 24 V, typical
Permissible total current consumption of all I/O modules from the ST local bus	500 mA at 9 V, maximum

Polarity reversal of the input voltage and a current of > 2 A can damage the module electronics as there is no module internal fuse. Therefore, install a 2 A external fuse.

Ordering Data

Meaning	Order Designation	Order No.
BK module (screw-clamp terminals)	IBS ST 24 BKM-T	27 50 15 4
BK module (spring-clamp terminals)	IBS ST ZF 24 BKM-T	27 24 96 0
Replacement shield clamp	IBS RB-SHIELD	27 22 74 2
Replacement remote bus connector set	IBS RB PLSET/MC 1.5/8	27 22 75 5

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

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Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9