

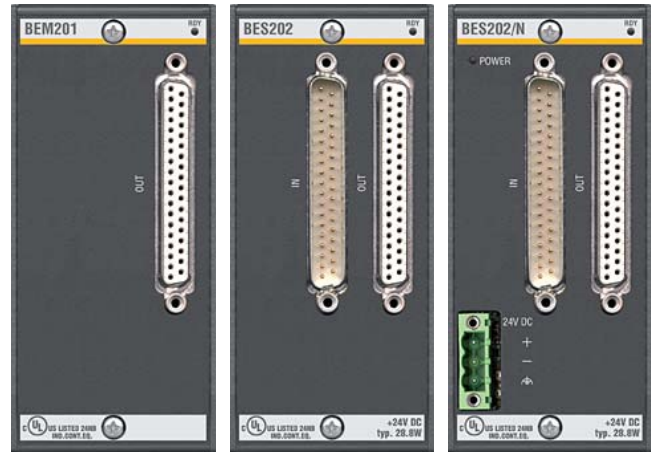
Bus extension modules Master/Slave
RIFLEX M1 bus extension modules

Type: **RMBEx20x.x**
Order #: see below

Bus extension modules are used to extend the backplane if more stations are needed because of the amount of modules in an application or if short backplanes have to be used because of a narrow cabinet.

A bus extension consists of one BE-Master and one or more BE-Slaves which are connected with 37 wire shielded cables. The BE-Master is placed on the same backplane as the processor module or the FAST-Bus Slave module.

The BE-Slave module BES202/N has an integrated power supply which delivers all necessary voltages for the slave backplane.



Feature Master

- 37 pin connector (female) as interface to the BE-Slave

Features Slave

- 37 pin connector (male) as interface to the BE-Master or to the previous BE-Slave
- 37 pin connector (female) as interface to the next BE-Slave
- 3 pin connector for the necessary external power supply (optional, on BES202/N)
- integrated power supply (optional, on BES202/N)



remark: Only one BEx module is allowed per station.

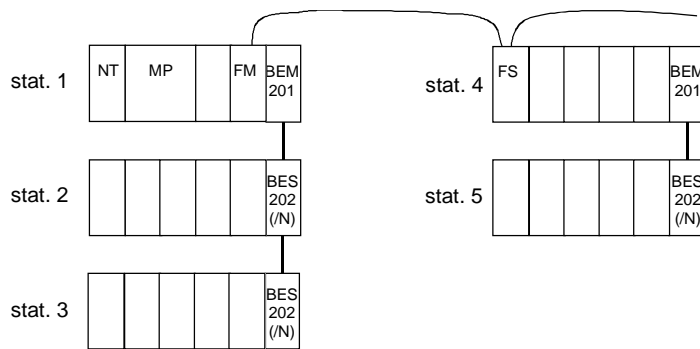
Bus Extension Module	BEM201	BES202	BES202/N
number of inputs	-	1	1
number of outputs	1	1	1
state indicating LED yellow	Ready		
state indicating LED green	-		Power On (external)
power supply	internal, via backplane BS2xx		integrated power supply
current consumption via backplane	max. 200 mA @ + 5 V DC		0
integrated power supply	no		yes
output voltages / maximum current	-		5 V DC / 2A + 15 V DC / 250 mA - 15 V DC / 200 mA
isolation voltages input / bus	-		yes, up to 500 V AC
isolation voltages input / ground	-		yes, up to 500 V AC
isolation voltages bus / ground	-		no

The slave power supply is an isolated DC/DC converter, which generates the voltages for the slave backplane. It is automatically detected, if an NT250 module is installed on the backplane. Therefore an NT250 can be added, if the power needed for the modules on the slave backplane exceeds the 17 W of the integrated power supply.

External Power Supply (BES202/N)

External Power Supply	Description
input voltage, nominal	24 V DC
input voltage, range	18 .. 34 V DC
input voltage, peak value, if t < 1 s / min	40 V DC
starting current	< 5 A @ t < 0.5 ms
current consumption (with maximum bus load)	typ. 900 mA @ 24 V DC
polarity reversal protection	yes

Setup of BE-Master and BE-Slave



base station and sub stations

The bus extension modules BEM201 and BES202 may be located in any module slot.



remark: A base station can be extended with up to 15 BES sub stations. A FAST-Bus sub station of the FS20x series may be extended with one BES sub station. FAST-Bus sub stations of the FS21x series can be freely extended with BES sub stations. The total number of sub stations must not exceed 15.

Pin Assignments of the Power Supply

Connector	Pin	Signal	Description
	1	+	external power supply + 24 V DC
	2	-	external power supply ground
	3		functional earthing

Order Codes for Connectors

Order Code	Description	BEM200	BES202	BES202/N
SS51/03	3 pin connector, R.= 5.08 screw terminals, side			
SV51/03	3 pin connector, R.= 5.08 screw terminals, front	-	-	1
KZ51/03	3 pin connector, R.= 5.08 cage clamp terminal			

Order Codes for Modules and Accessories

Order Code	Description
RMBEM201	bus extension Master (one output)
RMBES202	bus extension Slave (input + output)
RMBES202/N	bus extension Slave (input + output), integrated power supply 17 W
RMKBE201.05	cable, bus extension 0.5 m
RMKZ51/03B	KZ51/03 with label strips

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rittmeyer	hardware datasheet	DG DKap Stamm-Bez. Var Ind F Sp
		43.210.006753x.001.00.4.4