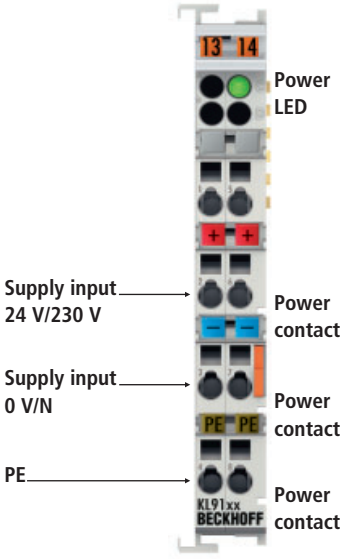
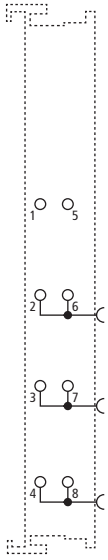
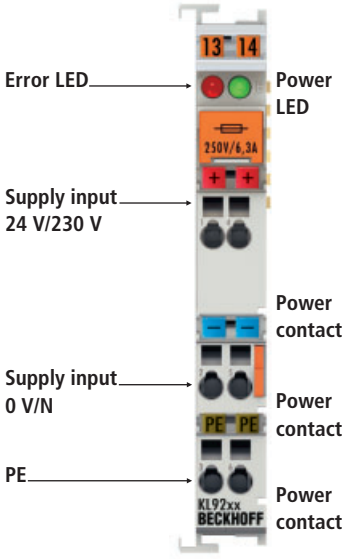


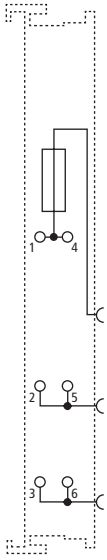
Top view



Contact assembly



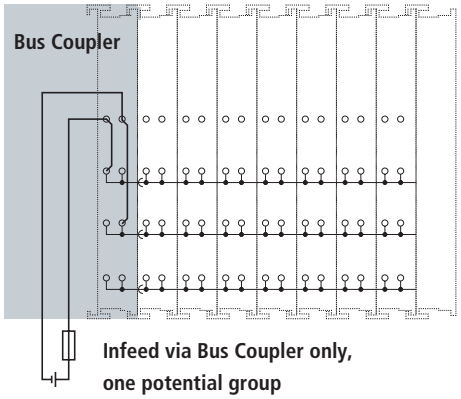
Top view



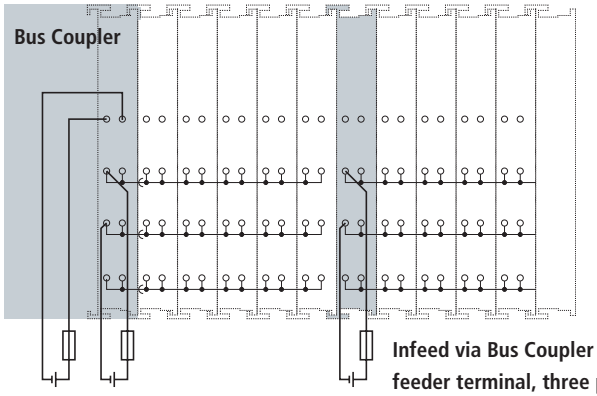
Contact assembly

KL91xx, KL92xx | Bus function terminals

The feed terminals can be inserted anywhere between the input and output terminals in order to construct a further potential group, or in order to supply the terminals that follow to the right with additional current. The feed terminals can be used for voltages up to 230 V AC. The terminals with diagnostics report any voltage failure or short-circuit to the controller. The function and electronic data from the diagnostic terminals appear like a 2-channel input terminal with correlating voltage. In other words, they occupy 2 bits in the automation device's process image.



Infeed via Bus Coupler only, one potential group



Infeed via Bus Coupler and incoming feeder terminal, three potential groups

Technical data	KL91xx | KS91xx, KL92xx
Power contacts	max. 10 A
Short-circuit-proof	125 A
Voltage	24 V DC or 230 V AC, depending on type
Protect. class/installation pos.	IP 20/variable
Pluggable wiring	for all KSxxxx Bus Terminals
Further information	www.beckhoff.com/KL91xx

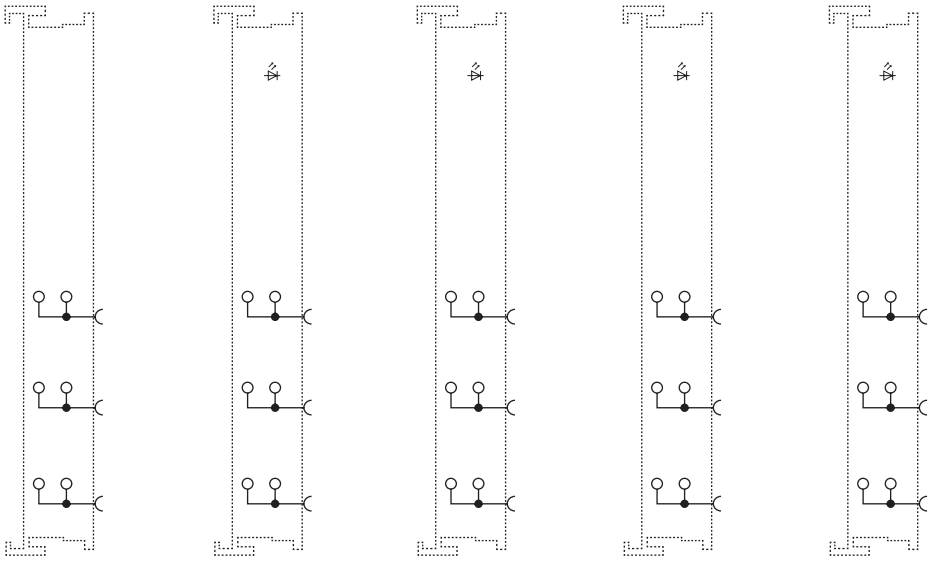
Special terminals	
KL9210-0020	with 2 A fuse (slow-blow) and modified label

KL91xx, KL92xx | Bus function terminals

The power feed terminals make it possible to set up various potential groups with any desired voltages (KL9190) or with the standard voltages of 24 V DC or 230 V AC (120 V AC). The power feed terminals are available with or without fine-wire fuse. In order to monitor the supply voltage, the terminals with diagnostics report the status of the power feed terminal to the Bus Coupler through two input bits. It is thus possible for the controller to check the distributed peripheral voltage over the fieldbus. The operating point performance conforms to the input terminals KL1002 (24 V) and KL1702 (230 V).

The KL9180, KL9185 and KL9195 Bus Terminals allow the supply voltage to be accessed a number of times via spring force terminals. These Bus Terminals make it unnecessary to use additional terminal blocks on the terminal strip. The KL9195 Bus Terminal can be used for the connection of

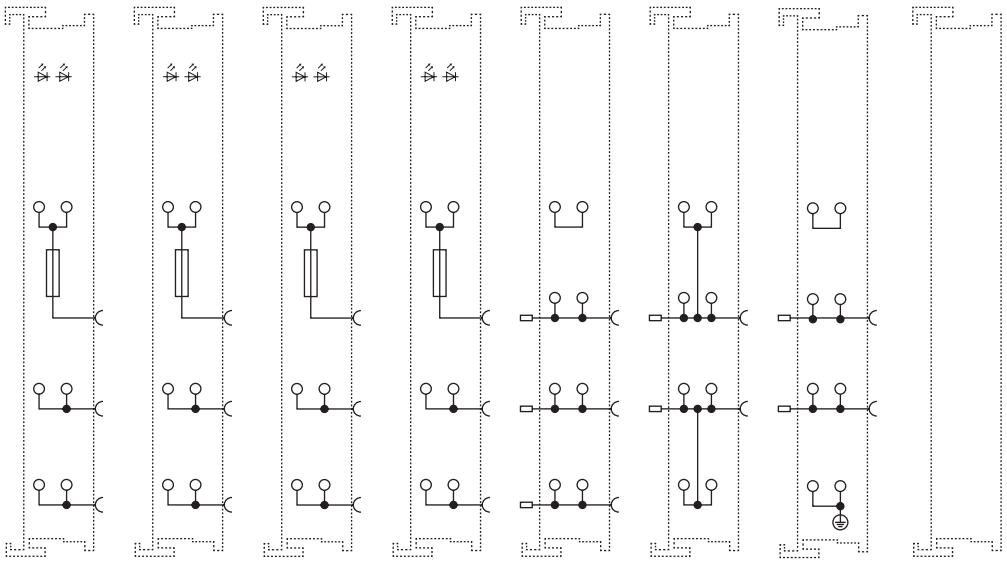
Meaning of the diagnostic bits:
Bit 0 = 0
no power supply present;
Bit 0 = 1
power supply present;
if the bus function terminal does not have a fuse, then bit 1 = 0.



Description	**KL9190** | KS9190	**KL9100** | KS9100	**KL9110** | KS9110	**KL9150** | KS9150	**KL9160** | KS9160
Nominal voltage	arbitrary	24 V DC	24 V DC	230 V AC (120 V AC)	230 V AC (120 V AC)
Integrated fine-wire fuse	–				
Diagnostics	–	–	yes	–	yes
Power LED	–	green	green	green	green
Defect LED	–				
Reported to K-bus	–	–	yes	–	yes
PE contact	yes				
Shield connection	–				
Renewed infeed	yes				
Connection facility to additional power contact	1				
K-bus, looped through	yes				
Bit width in the process image	0	0	2	0	2
Connection to DIN rail	–				
Electrical isolation	yes				
Housing width in mm	12				
Side by side mounting on Bus Terminals with power contact	yes				
Side by side mounting on Bus Terminals without power contact	yes				
Pluggable wiring	for all KSxxxx Bus Terminals				
Further information	www.beckhoff.com/KL9190				

screens. The KL9195 connects the spring force contacts directly to the DIN rail, and can optimally ground incoming electromagnetic radiation. The two power contacts are looped through by the KL9195, allowing two wires to be connected to each power contact. The KL9010 bus end terminal is necessary for data exchange between the Bus Coupler and the Bus Terminals. Each assembly must be terminated at the right hand end with a KL9010 bus end terminal. The bus end terminal does not have any other function or connection facility. The KL9080 is used to identify potential groups (e.g. 230 V AC/24 V DC). It is inserted between two potential groups, and indicates the separation through an orange coloured cover.

Meaning of the diagnostic bits:
Bit 0 = 0
no power supply present;
Bit 0 = 1
power supply present,
Bit 1 = 0
fuse OK,
Bit 1 = 1
fuse faulty.



Description	KL9200 (KL9290)	KL9210	KL9250	KL9260	KL9180 (KS9180)	KL9185 (KS9185)	KL9195 (KS9195)	KL9010 KL9080
Nominal voltage	24 V DC (arbitrary)	24 V DC	230 V AC	230 V AC	arbitrary up to 230 V AC	arbitrary up to 230 V AC	arbitrary up to 230 V AC	end/separa. terminal
Integrated fine-wire fuse	…6.3 A	…6.3 A	…6.3 A	…6.3 A	–	–	–	–
Diagnostics	–	y s	e-	y s	e-	–	–	–
Power LED	green (without)	green	green	green	–	–	–	–
Defect LED	red (without)	red	red	red	–	–	–	–
Reported to K-bus	–	y s	e-	y s	e-	–	–	–
PE contact	yes	yes	yes	yes	yes	–	–	–
Shield connection	–	–	–	–	–	–	2	–
Renewed infeed	yes	yes	yes	yes	–	–	–	–
Connection facility to additional power contact	1	1	1	1	2	4	1	–
K-bus, looped through	yes	yes	yes	yes	yes	yes	yes	–/yes
Bit width in the process image	0	2	0	2	0	0	0	0
Connection to DIN rail	–	–	–	–	–	–	shield terminal	–
Electrical isolation	yes	yes	yes	yes	–	–	–	–
Housing width in mm	12							
Side by side mounting on Bus Terminals with power contact	yes	yes	yes	yes	yes	only 2 power contacts	only 2 power contacts	yes
Side by side mounting on Bus Terminals without power contact	yes	yes	yes	yes	–	–	–	yes
Pluggable wiring	for all KSxxxx Bus Terminals							
Further information	www.beckhoff.com/KL9200							