



Mount the terminal block on spare DIN rail space.  
Use the terminal block to distribute the 24V supply.

This EtherCAT chassis uses copper only.  
Mount the modular adapters to the front panel.  
Using CAT5 patch cables:

- Connect the front panel input to the input of the first modbus gateway (left rail).
- Connect the first modbus gateway to the second one (left rail).
- Connect the second modbus gateway to the third one (left rail).
- Connect the third modbus gateway to the first coupler (left rail).
- Connect the front panel output to the output of the last coupler (right rail).
- Connect the output of the first coupler to the input of the second one.
- Connect the output of the second coupler to the input of the third one.
- Connect the modbus outputs to the corresponding ports.

### Ports

IN

OUT

1A

2A

3A

PN1  
EtherCAT chassis  
LIGO  
D0902552-v3

PN6  
Ethernet patch cable, 1'

PN11  
Ethernet patch cable, 1'

PN15  
Modular coupler  
L-Com  
ECF504-SC5E

PN20  
Modular coupler

PN25  
Modular coupler

PN2  
Name Plate  
LIGO  
D1102269-v1

PN7  
Ethernet patch cable, 1'  
PN8  
Ethernet patch cable, 1'  
PN9  
Ethernet patch cable, 1'

PN12  
Ethernet patch cable, 1'  
PN13  
Ethernet patch cable, 1'  
Newark  
21M5658

PN16  
Modular coupler

PN21  
Modular coupler

PN26  
Modular coupler

PN3  
Front Panel (alt)  
LIGO  
D1102322-v1

CAT5  
Corner

CAT5  
Corner

PN17  
Ethernet patch cable, 1'  
PN18  
Ethernet patch cable, 3'

CAT5  
Modbus

PN22  
Ethernet patch cable, 1'  
PN23  
Ethernet patch cable, 3'

CAT5  
Modbus

PN27  
Ethernet patch cable, 1'  
PN28  
Ethernet patch cable, 3'

CAT5  
Modbus

PN4  
Rear Panel (alt)  
LIGO  
D1102268-v2

### TBLOCK

PN33 Terminal Block  
PN34 Terminal Block  
PN35 Terminal Block  
PN36 Terminal Block  
PN37 Terminal Block  
Digi-Key  
277-1483-ND

PN39 Terminal Block  
PN40 Terminal Block  
PN41 Terminal Block  
PN42 Terminal Block  
PN43 Terminal Block  
PN44 Jumper, 10pos  
PN45 Jumper, 10pos  
Digi-Key  
277-1494-ND

PN47 Terminal Block  
PN48 Terminal Block  
PN49 Terminal Block  
PN50 Terminal Block  
PN51 Terminal Block  
Digi-Key  
277-1483-ND

PN54 Terminal Block  
PN55 Terminal Block  
PN56 Terminal Block  
PN57 Terminal Block  
PN58 Terminal Block  
PN59 Jumper, 10pos  
PN60 Jumper, 10pos  
Digi-Key  
277-1494-ND

PN38 End Plate  
Digi-Key  
277-1495-ND

PN52 End Plate  
Digi-Key  
277-1495-ND

PN61 End Plate  
Digi-Key  
277-1495-ND

### Slots

1

2

3

4

5

6

7

8

9

10

11

12

13

PN5  
Picomotor adapter  
LIGO  
D1100419-v3

PN10  
Picomotor adapter  
LIGO  
D1100419-v3

PN14  
Picomotor adapter  
LIGO  
D1100419-v3

PN19  
Picomotor adapter  
LIGO  
D1100419-v3

PN24  
Picomotor adapter  
LIGO  
D1100419-v3

PN29  
Picomotor adapter  
LIGO  
D1100419-v3

PN30  
Picomotor adapter  
LIGO  
D1100419-v3

PN31  
Picomotor adapter  
LIGO  
D1100419-v3

PN32  
Picomotor adapter  
LIGO  
D1100419-v3

PN46  
Picomotor adapter  
LIGO  
D1100419-v3

PN53  
Picomotor adapter  
LIGO  
D1100419-v3

PN61  
Picomotor adapter  
LIGO  
D1100419-v3

PN62  
Adapter panel  
LIGO  
D1100661-v1

E1 Jack screw  
E2 Jack screw  
E3 Jack screw  
E4 Jack screw  
L-Com  
SDG450XS

E5 Jack screw  
E6 Jack screw  
E7 Jack screw  
E8 Jack screw

E9 Jack screw  
E10 Jack screw  
E11 Jack screw  
E12 Jack screw  
L-Com  
SDG450XS

E13 Jack screw  
E14 Jack screw  
E15 Jack screw  
E16 Jack screw

E17 Jack screw  
E18 Jack screw  
E19 Jack screw  
E20 Jack screw  
L-Com  
SDG450XS

E21 Jack screw  
E22 Jack screw  
E23 Jack screw  
E24 Jack screw

E25 Jack screw  
E26 Jack screw  
E27 Jack screw  
E28 Jack screw  
L-Com  
SDG450XS

E29 Jack screw  
E30 Jack screw  
E31 Jack screw  
E32 Jack screw

E33 Jack screw  
E34 Jack screw  
E35 Jack screw  
E36 Jack screw

E37 Jack screw  
E38 Jack screw  
E39 Jack screw  
E40 Jack screw

E41 Jack screw  
E42 Jack screw  
E43 Jack screw  
E44 Jack screw

E45 Jack screw  
E46 Jack screw  
E47 Jack screw  
E48 Jack screw

PN63  
Serial adapter  
LIGO  
D1100638-v1  
E49 #6-32 1/4" flat  
E50 #6-32 1/4" flat  
McMaster-Carr  
91099A205

Picomotor  
HAM1/3

Picomotor  
HAM2

Picomotor  
HAM6

Picomotor  
ISCT1/IOT1

Picomotor  
OL

Picomotor  
TCS HWS

Picomotor  
TCSX CO2

Picomotor  
TCSY CO3

Picomotor  
SQZ table

Picomotor  
HAM7

Picomotor  
Spare 1

Picomotor  
Spare 2

Serial  
Concentrator

Title			<b>EtherCAT Corner 2</b>		
Size	Number	Revision			
B	<b>D1100680</b>	<b>3</b>			
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B1  
AB9000  
HMS  
Anybus X-gateway EtherCAT/Modbus



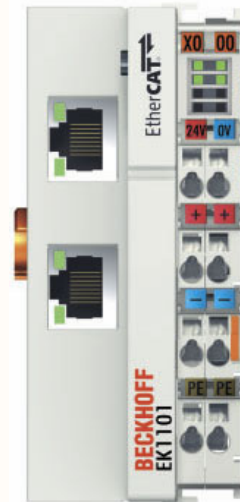
B2  
AB9000  
HMS  
Anybus X-gateway EtherCAT/Modbus



B3  
AB9000  
HMS  
Anybus X-gateway EtherCAT/Modbus



B4  
EK1101  
EtherCAT coupler w/ ID switch



B5  
EL6022  
Dual serial interface RS422/RS485



B6  
EL6022  
Dual serial interface RS422/RS485



B7  
EL9011  
End cap



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

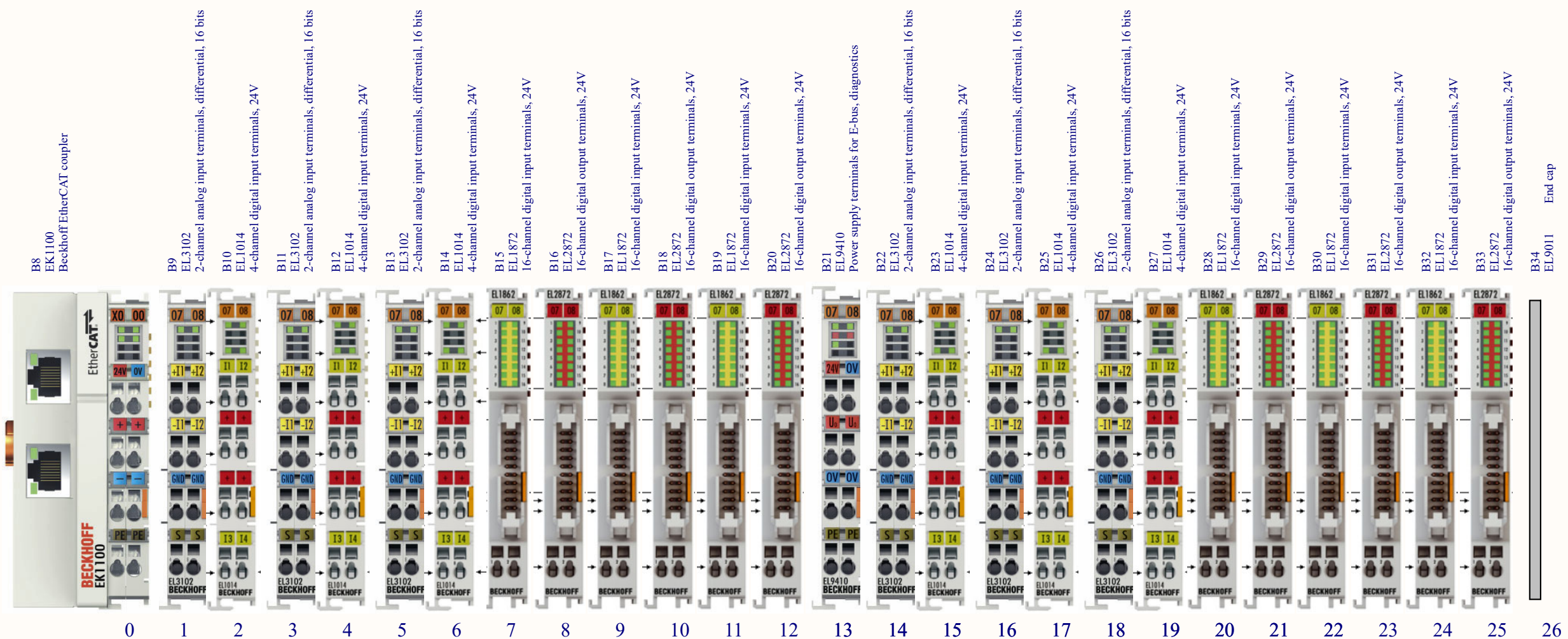
Ebus  
Power contacts 24V

### Serial

Power budget:  
EL6022: 0.350 A (2x)  
-----  
0.700 A

- PN64 D-Sub cable, DB9, male
- PN65 IDC socket, 10pin
- PN66 IDC socket, 10pin
- PN67 D-Sub cable, DB9, male
- PN68 D-sub screw/retainer
- SDF1
- PN69 D-Sub cable, DB9, male
- PN70 IDC socket, 10pin
- PN71 D-Sub cable, DB9, male
- PN72 IDC socket, 10pin
- Digi-Key H7PXH-0906G-ND
- MKC10A-ND

Title <b>EtherCAT Corner 2: Left Rail</b>		
Size B	Number <b>D1100680</b>	Revision <b>3</b>
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File:	C:\Users\...\EtherCATCornerB2.SchDoc	Drawn By: Daniel Sigg



Ebus 24V  
 Power contacts 24V

24V  
 24V

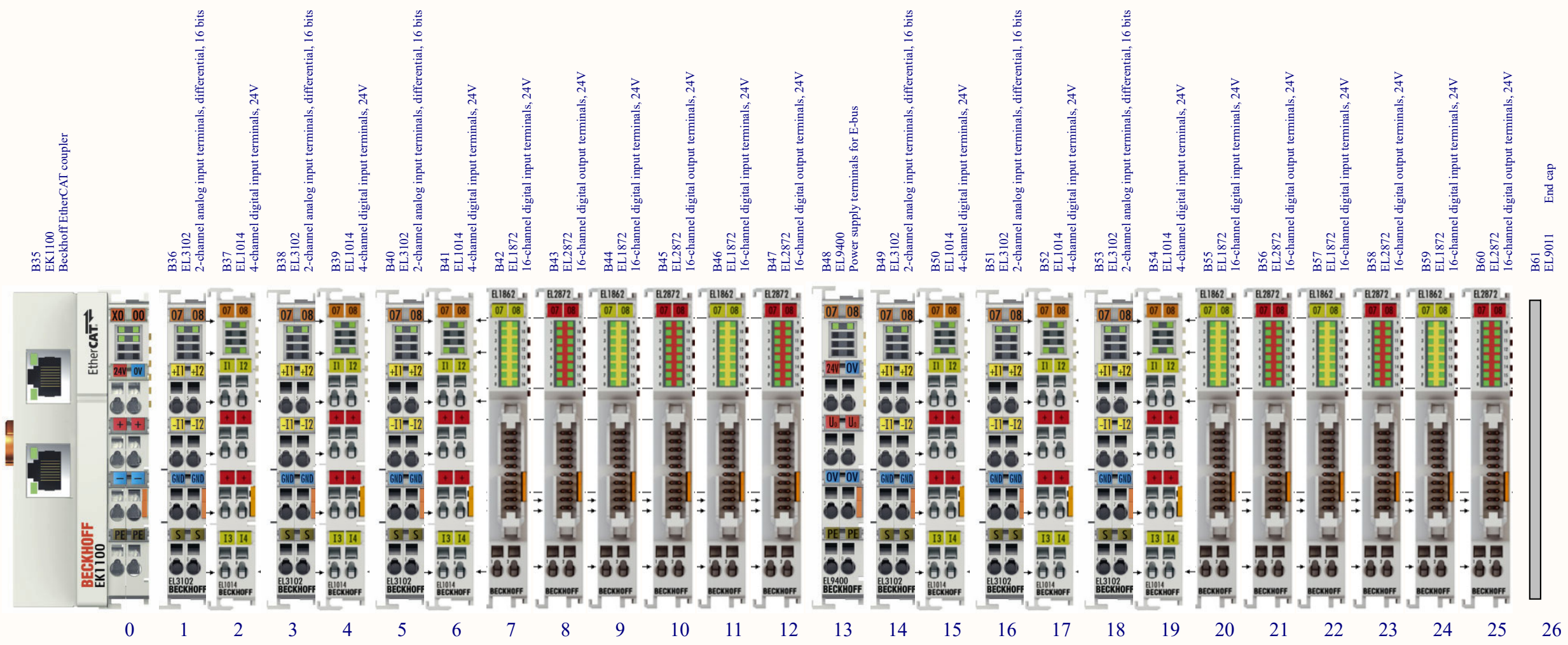
**Picomotors**

Power budget:  
 EL3102: 0.180 A (3x)  
 EL1014: 0.090 A (3x)  
 EL1872: 0.130 A (3x)  
 EL2872: 0.130 A (3x)  
 -----  
 1.590 A

Power budget:  
 EL3102: 0.180 A (3x)  
 EL1014: 0.090 A (3x)  
 EL1872: 0.130 A (3x)  
 EL2872: 0.130 A (3x)  
 -----  
 1.590 A

PN73 IDC Cable, 20-pin	PN79 IDC Cable, 20-pin	PN85 IDC Cable, 20-pin
PN74 IDC socket, 20pin	PN80 IDC socket, 20pin	PN86 IDC socket, 20pin
PN75 IDC socket, 20pin	PN81 IDC socket, 20pin	PN87 IDC socket, 20pin
PN76 IDC Cable, 20-pin	PN82 IDC Cable, 20-pin	PN88 IDC Cable, 20-pin
PN77 IDC socket, 20pin	PN83 IDC socket, 20pin	PN89 IDC socket, 20pin
PN78 IDC socket, 20pin	PN84 IDC socket, 20pin	PN90 IDC socket, 20pin

Title <b>EtherCAT Corner 2: Middle Rail</b>		
Size B	Number <b>D1100680</b>	Revision <b>3</b>
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Ebus 24V  
 Power contacts 24V

**Picomotors**

Power budget:
EL3102: 0.180 A (3x)
EL1014: 0.090 A (3x)
EL1872: 0.130 A (3x)
EL2872: 0.130 A (3x)
-----
1.590 A

**Picomotors**

Power budget:
EL3102: 0.180 A (3x)
EL1014: 0.090 A (3x)
EL1872: 0.130 A (3x)
EL2872: 0.130 A (3x)
-----
1.590 A

PN91 IDC Cable, 20-pin	PN97 IDC Cable, 20-pin	PN103 IDC Cable, 20-pin
PN92 IDC socket, 20pin	PN98 IDC socket, 20pin	PN104 IDC socket, 20pin
PN93 IDC socket, 20pin	PN99 IDC socket, 20pin	PN105 IDC socket, 20pin
PN94 IDC Cable, 20-pin	PN100 IDC Cable, 20-pin	PN106 IDC Cable, 20-pin
PN95 IDC socket, 20pin	PN101 IDC socket, 20pin	PN107 IDC socket, 20pin
PN96 IDC socket, 20pin	PN102 IDC socket, 20pin	PN108 IDC socket, 20pin

Title <b>EtherCAT Corner 2: Right Rail</b>		
Size B	Number <b>D1100680</b>	Revision <b>3</b>
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File: C:\Users\...\EtherCATCornerB4.SchDoc	Drawn By: Daniel Sigg	