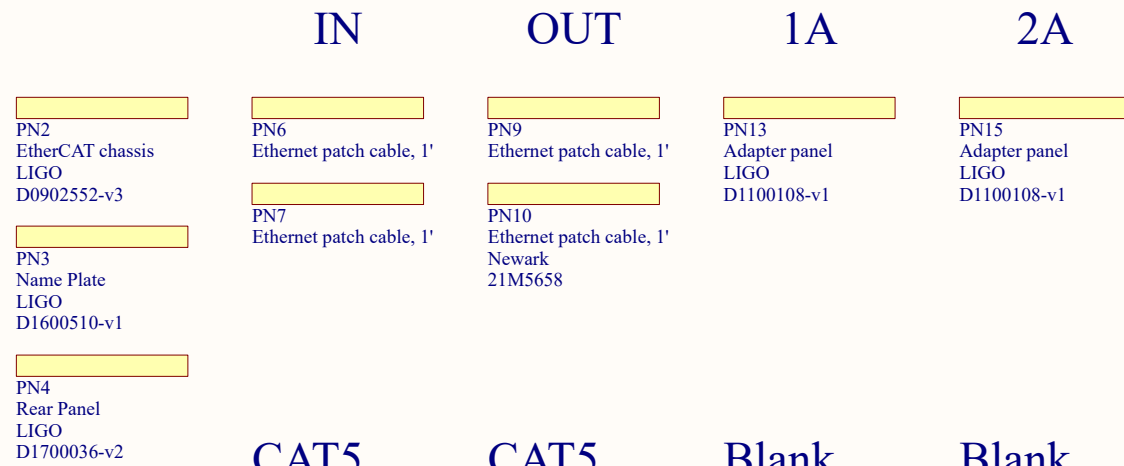


Mount the terminal block on spare DIN rail space.
Use the terminal block to distribute the 24V supply.

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

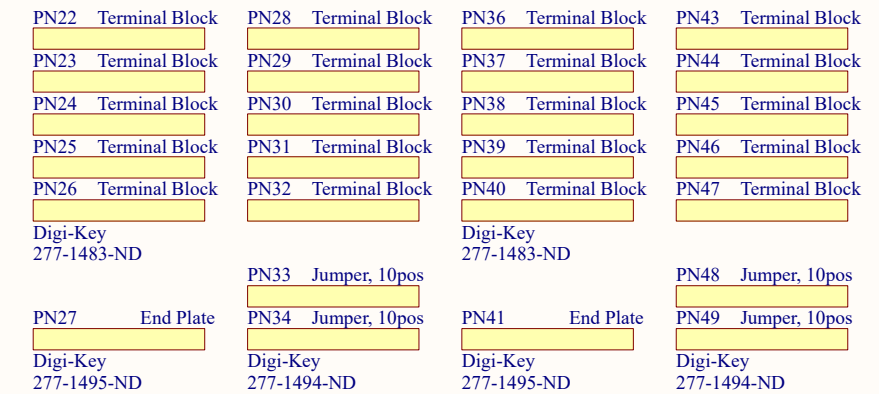
- Connect the front panel input to the first coupler (left rail).
- Connect the output of the first coupler to the input of the second one.
- Connect the output of the second coupler to the input of the third one.
- Connect the front panel output to the output of the last coupler (right rail).

Ports

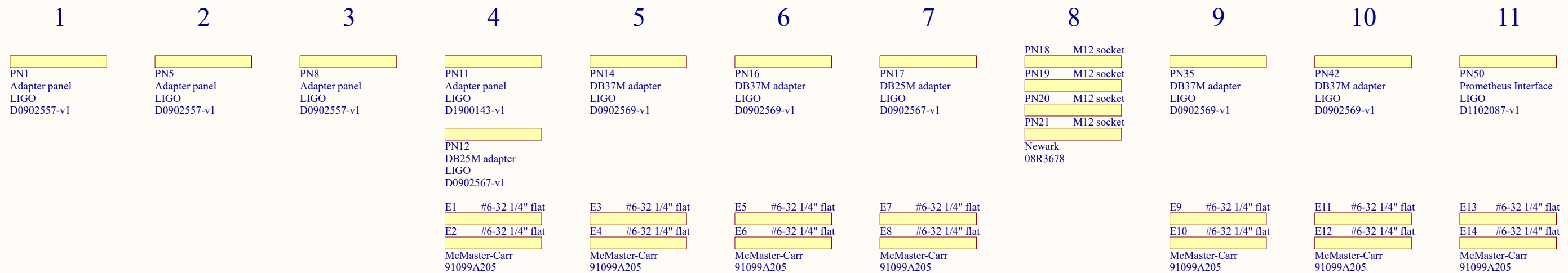


CAT5 Squeezer CAT5 Squeezer Blank Blank

TBLOCK



Slots



Blank Blank Blank AM Mod AOM Amp Empty TTFSS Flipper TTL IO Temp. Sensors DC Photodiodes concentr. 7 DC Photodiodes concentr. 8 Laser Diagnostics

M12	Color	PT100
1	brown	RL+
2	white	R+
3	blue	RL-
4	black	R-

External Sensor, e.g.,
Newark 35M2405 & 15M4877
Connector, e.g.,
Newark 15M4864

Title EtherCAT Squeezer 3		
Size B	Number D1600509	Revision 2
Date:	5/10/2019	Sheet 1 4 of
File:	C:\Users\...\EtherCATSqueezerC1.SchDoc Drawn By: Daniel Sigg	

B1
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B2
EK1101
EtherCAT coupler w/ ID switch

B3
EL3104
4-channel analog input terminals, differential, 16 bits

B4
EL3104
4-channel analog input terminals, differential, 16 bits

B5
EL1124
4-channel digital input terminals, 5V

B6
EL9190
Feed terminal, arbitrary voltage

B7
EL2124
4-channel digital output terminals, 5V

B8
EL2124
4-channel digital output terminals, 5V

B9
EL2124
4-channel digital output terminals, 5V

B10
EL2124
4-channel digital output terminals, 5V

B11
EL3104
4-channel analog input terminals, differential, 16 bits

B12
EL3104
4-channel analog input terminals, differential, 16 bits

B13
EL9410
Power supply terminals for E-bus, diagnostics

B14
EL2124
4-channel digital output terminals, 5V

B15
EL2124
4-channel digital output terminals, 5V

B16
EL2124
4-channel digital output terminals, 5V

B17
EL3102
2-channel analog input terminals, differential, 16 bits

B18
EL3104
4-channel analog input terminals, differential, 16 bits

B19
EL3104
4-channel analog input terminals, differential, 16 bits

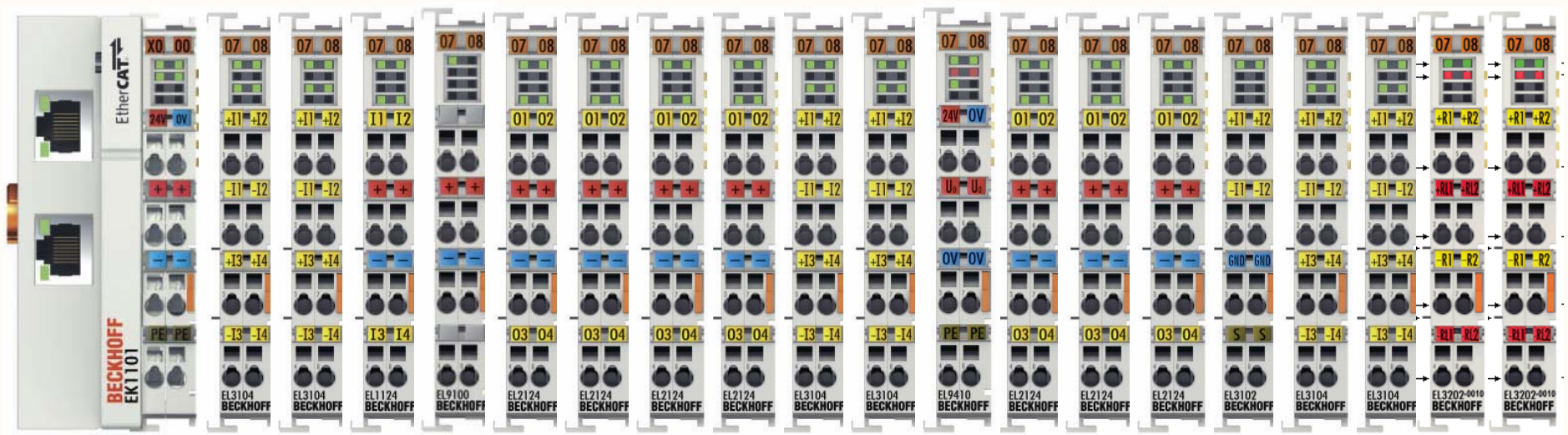
B20
EL3692
2-channel high precision resistance terminal

B21
EL3692
2-channel high precision resistance terminal

B22
EL9011
End cap

B23
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B24
5V/0.6A isolated DC-DC converter, Omron S82S-7305



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Ebus 24V — 24V
Power contacts 5V 5V 5V

DC_1 Laser DC PDs concentrator 8 DC PDs concentrator 7 Temperature DC_2 DC_3

Power budget:
EL3104: 0.130 A (4x)
EL4234: 0.265 A (0x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (4x)

1.130 A

Power budget:
EL3104: 0.130 A (2x)
EL3102: 0.170 A (1x)
EL3692: 0.220 A (2x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (2x)

1.220 A

Title EtherCAT Squeezer 3: Left Rail		
Size B	Number D1600509	Revision 2
Date: 5/10/2019	Sheet 2	4 of
File: C:\Users\...\EtherCATSqueezerC2.SchDoc	Drawn By: Daniel Sigg	

B25
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B26
EK1100
Beckhoff EtherCAT coupler

B27
EL1124
4-channel digital input terminals, 5V

B28
EL1124
4-channel digital input terminals, 5V

B29
EL1124
4-channel digital input terminals, 5V

B30
EL2124
4-channel digital output terminals, 5V

B31
EL2124
4-channel digital output terminals, 5V

B32
EL2124
4-channel digital output terminals, 5V

B33
EL9410
Power supply terminals for E-bus, diagnostics

B34
EL1124
4-channel digital input terminals, 5V

B35
EL2124
4-channel digital output terminals, 5V

B36
EL2124
4-channel digital output terminals, 5V

B37
EL2124
4-channel digital output terminals, 5V

B38
EL3104
4-channel analog input terminals, differential, 16 bits

B39
EL3102
2-channel analog input terminals, differential, 16 bits

B40
EL4134
4-channel analog output terminals, differential, 16 bits

B41
EL4132
2-channel analog output terminals, differential, 16 bits

B42
EL9410
Power supply terminals for E-bus, diagnostics

B43
EL3104
4-channel analog input terminals, differential, 16 bits

B44
EL4132
2-channel analog output terminals, differential, 16 bits

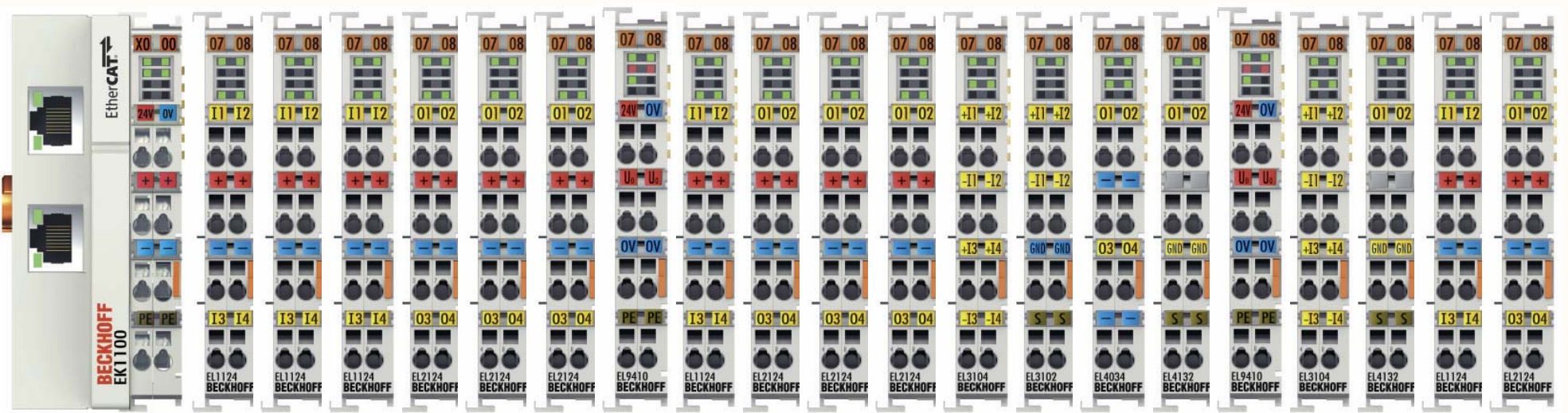
B45
EL1124
4-channel digital input terminals, 5V

B46
EL2124
4-channel digital output terminals, 5V

B47
EL9011
End cap

B48
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B49
5V/0.6A isolated DC-DC converter, Omron S82S-7305



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Ebus 24V
Power contacts 5V

24V
5V

24V
5V

DC_5
DC_6

DC_4 Flipper/TTL IO

TTFSS

AM Mod. AOM Amp

Power budget:
EL1124: 0.090 A (3x)
EL2124: 0.130 A (3x)

0.660 A

Power budget:
EL3102: 0.170 A (1x)
EL3104: 0.130 A (1x)
EL4132: 0.210 A (1x)
EL4134: 0.265 A (1x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (3x)

1.255 A

Power budget:
EL3104: 0.130 A (1x)
EL4132: 0.210 A (1x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (1x)

0.560 A

Title EtherCAT Squeezer 3: Middle Rail		
Size B	Number D1600509	Revision 2
Date: 5/10/2019	Sheet 3	4 of
File: C:\Users\...\EtherCATSqueezer3.SchDoc	Drawn By: Daniel Sigg	

1

2

3

4

5

6

A

A

B

B

C

C

D

D

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Ebus 24V
Power contacts 5V

Empty

Title		EtherCAT Squeezer 3: Right Rail	
Size	Number	Revision	
B	D1600509	2	
Date:	5/10/2019	Sheet 4	4 of
File:	C:\Users\...\EtherCATSqueezerC4.SchDoc Drawn By: Daniel Sigg		

1

2

3

4

5

6